

## **Appendix E**

### **Nature and Extent Summaries and Waste Site Table**

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Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code | Site Type                    | Operable Unit | Site Dimensions (m)   | Dates of Operation | Site History   | Class Status   | Decision/Closeout Report  | Remedial Action Start Date     | Remedial Action End Date        | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration |                      |                   |                      | 95% UCL           |     |     |
|-----------|------------------------------|---------------|---|--------------------|--|----------------|---|--------------------------------|---------------------------------|----------------------------|---|--------------------------------------|-----------------------|----------------------|-------------------|----------------------|-------------------|-----|-----|
|           |                              |               |   |                    |  |                |   |                                |                                 |                            |   |                                      | COC                   | (pCi/g, mg/kg)       |                   | (pCi/g, mg/kg)       |                   |     |     |
|           |                              |               |   |                    |  |                |   |                                |                                 |                            |   |                                      |                       | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |     |     |
| 100-D-1   | Process Sewer                | 100-DR-1      | 1.1 x 0.9 x 0.9   | Not Documented     | Waste site is a junction box and associated storm drain pipeline located between the 116-D-5 and 116-DR-5 outfall structures on the northern side of the patrol road. The junction box collected runoff and spillage from a culvert under Patrol Road and the Patrol Road ditch, and discharged the liquid to a drainage pipe that led to the river. | Interim Closed | WSRF/RSVP2010-054   | Apr. 15, 2009 and Jan. 5, 2010 | Apr. 15, 2009 and Jan. 11, 2010 | May. 20, 2010              | 495 BCM   | Not Reported                         | Cesium-137            | 0.0787 J             | 0.016             | /                    | /                 | /   | /   |
|           |                              |               |   |                    |  |                |   |                                |                                 |                            |   |                                      | Arsenic               | 2.5                  | 2                 | /                    | /                 | /   | /   |
|           |                              |               |   |                    |  |                |   |                                |                                 |                            |   |                                      | Barium                | 93.4 L               | 67.4              | /                    | /                 | /   | /   |
|           |                              |               |   |                    |  |                |   |                                |                                 |                            |   |                                      | Beryllium             | 0.31                 | 0.2               | /                    | /                 | /   | /   |
|           |                              |               |   |                    |  |                |   |                                |                                 |                            |   |                                      | Chromium              | 12.4 L               | 10                | /                    | /                 | /   | /   |
|           |                              |               |   |                    |  |                |   |                                |                                 |                            |   |                                      | Cobalt                | 11.1 L               | 8.7               | /                    | /                 | /   | /   |
|           |                              |               |   |                    |  |                |   |                                |                                 |                            |   |                                      | Copper                | 23.2                 | 20.2              | /                    | /                 | /   | /   |
|           |                              |               |   |                    |  |                |   |                                |                                 |                            |   |                                      | Lead                  | 6.1                  | 3.9               | /                    | /                 | /   | /   |
|           |                              |               |   |                    |  |                |   |                                |                                 |                            |   |                                      | Manganese             | 437 L                | 318               | /                    | /                 | /   | /   |
|           |                              |               |   |                    |  |                |   |                                |                                 |                            |   |                                      | Nickel                | 13.4 L               | 11.5              | /                    | /                 | /   | /   |
|           |                              |               |   |                    |  |                |   |                                |                                 |                            |   |                                      | Vanadium              | 81.2                 | 64.7              | /                    | /                 | /   | /   |
|           |                              |               |   |                    |  |                |   |                                |                                 |                            |   |                                      | Zinc                  | 46.9 L               | 43.6              | /                    | /                 | /   | /   |
|           |                              |               |   |                    |  |                |   |                                |                                 |                            |   |                                      | TPH - diesel range    | 23                   | 14                | /                    | /                 | /   | /   |
|           |                              |               |   |                    |  |                |   |                                |                                 |                            |   |                                      | TPH - motor oil       | 78                   | 81                | /                    | /                 | /   | /   |
|           |                              |               |   |                    |  |                |   |                                |                                 |                            |   |                                      | Boron                 | 2.1                  | /                 | /                    | /                 | /   | /   |
|           |                              |               |   |                    |  |                |   |                                |                                 |                            |   |                                      | Dimethyl phthalate    | 0.042                | /                 | /                    | /                 | /   | /   |
|           |                              |               |   |                    |  |                |   |                                |                                 |                            |   |                                      | Hexavalent Chromium   | 0.417                | /                 | /                    | /                 | /   | /   |
|           |                              |               |   |                    |  |                |   |                                |                                 |                            |   |                                      | Mercury               | 0.0073               | /                 | /                    | /                 | /   | /   |
|           |                              |               |   |                    |  |                |   |                                |                                 |                            |   |                                      | Molybdenum            | 0.35                 | /                 | /                    | /                 | /   | /   |
|           |                              |               |   |                    |  |                |   |                                |                                 |                            |   |                                      | Pyrene                | 0.017                | /                 | /                    | /                 | /   | /   |
| 100-D-10  | Depression/Pit (nonspecific) | 100-DR-1      | 251.43 m <sup>2</sup>   | Not Documented     | This site is a storm drain outfall. The site received non-dangerous and nonradioactive stormwater runoff from the 190-DR Tank Pit.   | Not Accepted   | TPA-MP-14 WIDS Discovery Site Evaluation checklist approved by the Regulators | N/A                            | N/A                             | N/A                        | N/A   | N/A                                  | N/A                   | N/A                  | N/A               | N/A                  | N/A               | N/A | N/A |
| 100-D-100 | Unplanned Release            | 100-DR-2      | 319 m <sup>2</sup>  | Not Documented     | This site is contaminated soil near the former sodium dichromate acid railcar and truck unloading station (100-D-12). The waste consists of hexavalent-contaminated soil. This site is currently being remediated and the source of hexavalent chromium groundwater contamination.   | Accepted       | Not Documented  | N/A                            | N/A                             | N/A                        | N/A   | N/A                                  | N/A                   | N/A                  | N/A               | N/A                  | N/A               | N/A | N/A |
| 100-D-101 | Sump                         | 100-DR-1      | 2.7 x 11 Each (Sulfuric Tanks)<br>2.1 x 3.9 x 2.5 (Acid Neutralization Pit structure) | before 1952        | The site consists of four chemical storage tanks, an acid neutralization pit/sump, a sodium silicate sump, two sets of pumps, and a car spot. All located to the west of the 108-D building. Two chemicals were stored near 108-D, sulfuric acid and sodium silicate, which each had its own set of  | Accepted       | Not Documented  | N/A                            | N/A                             | N/A                        | N/A   | N/A                                  | N/A                   | N/A                  | N/A               | N/A                  | N/A               | N/A | N/A |
| 100-D-102 | Unplanned Release            | 100-DR-1      | Not Documented  | Not Documented     | Suspect effluent leak adjacent to the 107-DR basin, visible in an 1962 aerial photograph.  | Accepted       | Not Documented  | N/A                            | N/A                             | N/A                        | N/A   | N/A                                  | N/A                   | N/A                  | N/A               | N/A                  | N/A               | N/A | N/A |
| 100-D-103 | French Drain                 | 100-DR-1      | Not Documented  | Not Documented     | Suspected trench and french drain, visible in a December 1949 aerial photograph running south from the 116-D-8 Cask Pad  | Accepted       | Not Documented  | N/A                            | N/A                             | N/A                        | N/A   | N/A                                  | N/A                   | N/A                  | N/A               | N/A                  | N/A               | N/A | N/A |
| 100-D-104 | Unplanned Release            | 100-DR-1      | 910m <sup>2</sup>   | Not Documented     | The site consists of stained soils near the former external sodium dichromate storage tank and acid french drain outside of the 185-D facility.  | Accepted       | Not Documented  | N/A                            | N/A                             | N/A                        | N/A   | N/A                                  | N/A                   | N/A                  | N/A               | N/A                  | N/A               | N/A | N/A |
| 100-D-105 | Pipeline                     | 100-DR-1      | 822 linear m  | Not Documented     | The site consists of pipeline segments in 100-D/DR Area that were discovered during remediation of other waste sites and were not associated with an existing waste site.  | Accepted       | Not Documented  | N/A                            | N/A                             | N/A                        | N/A   | N/A                                  | N/A                   | N/A                  | N/A               | N/A                  | N/A               | N/A | N/A |
| 100-D-105 | Product Piping               | 100-DR-1      | 822m <sup>2</sup>   | Not Documented     | The site consists of 17 pipeline segments. The pipelines were discovered during remediation of other waste sites and are located throughout the study area.  | Accepted       | Not Documented  | NA                             | N/A                             | N/A                        | N/A   | N/A                                  | N/A                   | N/A                  | N/A               | N/A                  | N/A               | N/A | N/A |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code | Site Type         | Operable Unit | Site Dimensions (m)                 | Dates of Operation | Site History  | Class Status   | Decision/Closeout Report  | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons)                  | Maximum Depth of Remedial Action (m)   | COC                 | Maximum Concentration              |                   | 95% UCL              |                   |         |
|-----------|-------------------|---------------|-------------------------------------|--------------------|---|----------------|---|----------------------------|--------------------------|----------------------------|--|--|---------------------|------------------------------------|-------------------|----------------------|-------------------|---------|
|           |                   |               |                                     |                    |   |                |   |                            |                          |                            |  |  |                     | (pCi/g, mg/kg)                     |                   | (pCi/g, mg/kg)       |                   |         |
|           |                   |               |                                     |                    |   |                |   |                            |                          |                            |  |  |                     | Shallow <sup>a</sup>               | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |         |
| 100-D-106 | Sanitary Sewer    | 100-DR-2      | Not Documented                      | Not Documented     | This site is made up of the 1607-D1 sanitary sewer pipelines. It include a french drain.  | Accepted       | Not Documented  | N/A                        | N/A                      | N/A                        | N/A  | N/A  | N/A                 | N/A                                | N/A               | N/A                  | N/A               |         |
| 100-D-107 | Unplanned Release | 100-DR-1      | 70 X 35                             | Not Documented     | This site consists of the soil beneath and surrounding the demolished 1713-DA Essential Material Warehouse. The warehouse was a wood frame building used for material storage (e.g. radium dichromate).   | Accepted       | Not Documented  | N/A                        | N/A                      | N/A                        | N/A  | N/A  | N/A                 | N/A                                | N/A               | N/A                  | N/A               |         |
| 100-D-11  | Unplanned Release | 100-DR-2      | 16,266.31 m <sup>2</sup>            | 1950               | This site is suspected of being a temporary garage and gasoline dispensing station, because the site cannot be located, potential USTs cannot be verified, and no releases have been documented, this site is rejected as a waste site.   | Not Accepted   | TPA-MP-14 WIDS Discovery Site Evaluation checklist approved by the Regulators | N/A                        | N/A                      | N/A                        | N/A  | N/A  | N/A                 | N/A                                | N/A               | N/A                  | N/A               |         |
| 100-D-12  | Pump Station      | 100-DR-2      | 4.10 x 3.50, 0.91 x 6               | Not Documented     | Received sodium dichromate and sulfuric acid solutions in water from flushing and draining hoses and pipelines connected to railcars and trucks for unloading.  | Interim Closed | WSRF 2000-105 CVP-2000-00016  | 11/8/1999                  | 4/19/2000                | 5/1/2000                   | 34.5   | 2.4  | Hexavalent Chromium | 0.56 U                             | /                 | 0.56 <sup>c</sup>    | /                 |         |
| 100-D-13  | Septic Tank       | 100-DR-2      | 7.9 x 3.7 x 7.3, 7.7 x 3.6, 60 x 45 | 1947-1949          | Septic system installed for use during construction of the 105-DR Reactor. consisted of a partitioned tank, a chlorinated house, a dosing tank, a filter bed, and associated piping.  | Accepted       | Not Documented  | N/A                        | N/A                      | N/A                        | N/A  | N/A  | N/A                 | N/A                                | N/A               | N/A                  | N/A               |         |
| 100-D-14  | Septic Tank       | 100-DR-2      | 3.8 x 2.1 x 91.6                    | Not Documented     | This concrete tank with drain field received sanitary sewage from the 105-DR Reactor construction badge house. The site appears as a vegetation covered field. A small depression may indicate the presence of the tank. A 10 cm (4 in.) cement pipe is likely to be a vent pipe to the drain field. The site is adjacent to a small soil pile. | Accepted       | Not Documented  | N/A                        | N/A                      | N/A                        | N/A  | N/A  | N/A                 | N/A                                | N/A               | N/A                  | N/A               |         |
| 100-D-15  | Dumping Area      | 100-DR-2      | 16,266.3 m <sup>2</sup>             | Not Documented     | Received debris and miscellaneous waste described as nonradioactive and nonhazardous, including paint cans, solvent cans, and construction materials. Waste material has been dumped at two locations in a large borrow pit southeast of the 100-DR Reactor Facilities (Gravel Pit No. 21).   | Interim Closed | WSRF/RSVP-2009-066  | Oct. 6, 2008               | Dec. 1, 2008             | Sept. 2009                 | 9,198 BCM from Northern area<br>4,003 BCM from the Southern area | Northern location was excavated between 2 m and 4 m<br><br>Southern location was excavated 3.5 m below grade |                     | North Excavation                   |                   | South Excavation     |                   |         |
|           |                   |               |                                     |                    |   |                |   |                            |                          |                            |  |  |                     | Maximum                            | 95% UCL           | Maximum              | 95% UCL           |         |
|           |                   |               |                                     |                    |   |                |   |                            |                          |                            |  |  |                     | Arsenic                            | 4.18              | 3.19                 | 5.74              | 4.01    |
|           |                   |               |                                     |                    |   |                |   |                            |                          |                            |  |  |                     | Barium                             | 70.6              | 64.4                 | 115               | 86      |
|           |                   |               |                                     |                    |   |                |   |                            |                          |                            |  |  |                     | Beryllium                          | 0.218             | 0.192                | 0.372             | 0.273   |
|           |                   |               |                                     |                    |   |                |   |                            |                          |                            |  |  |                     | Boron                              | 2.4               | 1.68                 | 3.33              | 1.93    |
|           |                   |               |                                     |                    |   |                |   |                            |                          |                            |  |  |                     | Cadmium                            | 0.081 (B)         | 0.065                | 1.99              | 0.54    |
|           |                   |               |                                     |                    |   |                |   |                            |                          |                            |  |  |                     | Chromium Total                     | 12.5              | 11.7                 | 20.4              | 14.4    |
|           |                   |               |                                     |                    |   |                |   |                            |                          |                            |  |  |                     | Cobalt                             | 8.31              | 6.79                 | 8.97              | 7.97    |
|           |                   |               |                                     |                    |   |                |   |                            |                          |                            |  |  |                     | Copper                             | 13.5              | 12.3                 | 39.2              | 20      |
|           |                   |               |                                     |                    |   |                |   |                            |                          |                            |  |  |                     | Hexavalent Chromium                | 0.13              | 0.13                 | 0.18              | 0.18    |
|           |                   |               |                                     |                    |   |                |   |                            |                          |                            |  |  |                     | Lead                               | 5.56              | 4.65                 | 17.2              | 7.1     |
|           |                   |               |                                     |                    |   |                |   |                            |                          |                            |  |  |                     | Manganese                          | 309               | 279                  | 368               | 328     |
|           |                   |               |                                     |                    |   |                |   |                            |                          |                            |  |  |                     | Mercury                            | 0.0789            | 0.028                | 0.0681            | 0.0681  |
|           |                   |               |                                     |                    |   |                |   |                            |                          |                            |  |  |                     | Molybdenum                         | 0.453 (B)         | 0.384                | 0.984 (B)         | 0.536   |
|           |                   |               |                                     |                    |   |                |   |                            |                          |                            |  |  |                     | Nickel                             | 10.9              | 10.4                 | 18.5              | 13.7    |
|           |                   |               |                                     |                    |   |                |   |                            |                          |                            |  |  |                     | Selenium                           | /                 | /                    | 0.477             | 0.477   |
|           |                   |               |                                     |                    |   |                |   |                            |                          |                            |  |  |                     | Vanadium                           | 73.4              | 54.9                 | 76                | 61.4    |
|           |                   |               |                                     |                    |   |                |   |                            |                          |                            |  |  |                     | Zinc                               | 49.6              | 40                   | 234               | 88      |
|           |                   |               |                                     |                    |   |                |   |                            |                          |                            |  |  |                     | TPH - motor oil                    | 11.5 (J)          | 7.23                 | 82.3              | 82.3    |
|           |                   |               |                                     |                    |   |                |   |                            |                          |                            |  |  |                     | Aroclor-1254                       | 0.00737           | 0.00737              | /                 | /       |
|           |                   |               |                                     |                    |   |                |   |                            |                          |                            |  |  |                     | Aroclor-1260                       | 0.00854           | 0.00854              | /                 | /       |
|           |                   |               |                                     |                    |   |                |   |                            |                          |                            |  |  |                     | Dichlorodiphenyl dichloro ethane   | /                 | /                    | 0.00362           | 0.00362 |
|           |                   |               |                                     |                    |   |                |   |                            |                          |                            |  |  |                     | Dichlorodiphenyl dichloro ethylene | /                 | /                    | 0.00569           | 0.00569 |
| 100-D-17  | Burn Pit          | 100-DR-2      | 10,837.90 m <sup>2</sup>            | Not Documented     | This site is a burn pit.  | Rejected       | WSRF 97-005   | N/A                        | N/A                      | N/A                        | N/A  | N/A  | N/A                 | N/A                                | N/A               | N/A                  | N/A               |         |
| 100-D-18  | Trench            | 100-DR-1      | 604.02 m <sup>2</sup>               | 1953               | Received sludge and effluent containing radioactive and hazardous materials from the 116-D-7 (107-  | Interim Closed | WSRF 2000-040 CVP-2000-00001  | Sept. 8, 1997              | Dec. 3, 1998             | Sept. 13, 1999             | 8,702  | 6.6  | Americium-241       | /                                  | 0.54 U            | /                    | 0.49              |         |
|           |                   |               |                                     |                    |   |                |   |                            |                          |                            |  |  |                     | Cobalt-60                          | /                 | 1.16                 | /                 | 1.06    |
|           |                   |               |                                     |                    |   |                |   |                            |                          |                            |  |  |                     | Cesium-137                         | /                 | 18                   | /                 | 17.7    |



Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code | Site Type                    | Operable Unit | Site Dimensions (m)  | Dates of Operation | Site History   | Class Status   | Decision/Closeout Report  | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date                  | Contaminated Waste Volume to ERDF (metric tons)     | Maximum Depth of Remedial Action (m) | Maximum Concentration  |                      |                   |                      | 95% UCL           |     |     |
|-----------|------------------------------|---------------|--|--------------------|--|----------------|---|----------------------------|--------------------------|---|---|--------------------------------------|--|----------------------|-------------------|----------------------|-------------------|-----|-----|
|           |                              |               |  |                    |  |                |   |                            |                          |   |   |                                      | COC  | (pCi/g, mg/kg)       |                   | (pCi/g, mg/kg)       |                   |     |     |
|           |                              |               |  |                    |  |                |   |                            |                          |   |   |                                      |  | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |     |     |
| 100-D-22  | Trench                       | 100-DR-1      | 340 m <sup>2</sup> x 3.0, Other sources suggest depth is 4.8 m                 | 1953               | Received sludge and effluent containing radioactive and hazardous materials from 116-D-7 (107-D/DR) Retention basins. This site is not documented as a high-volume liquid waste site.  | Interim Closed | WSRF 98-033 CVP-98-00001  | Mar. 14, 1997              | Nov. 11, 1997            | Nov. 11, 1997                               | 9,710   | 4.8                                  | Americium-241  | 0.059                | /                 | 0.059                | /                 |     |     |
|           |                              |               |  |                    |  |                |   |                            |                          |   |   |                                      | Cobalt-60  | 0.0334 J             | /                 | 0.031                | /                 |     |     |
|           |                              |               |  |                    |  |                |   |                            |                          |   |   |                                      | Cesium-137   | 0.21                 | /                 | 0.164                | /                 |     |     |
|           |                              |               |  |                    |  |                |   |                            |                          |   |   |                                      | Europium-152   | 0.374                | /                 | 0.303                | /                 |     |     |
|           |                              |               |  |                    |  |                |   |                            |                          |   |   |                                      | Europium-154   | 0.045 U              | /                 | 0.045                | /                 |     |     |
|           |                              |               |  |                    |  |                |   |                            |                          |   |   |                                      | Europium-155   | 0.0396 U             | /                 | 0.04                 | /                 |     |     |
|           |                              |               |  |                    |  |                |   |                            |                          |   |   |                                      | Plutonium-238  | 0.00621 U            | /                 | 0.006                | /                 |     |     |
|           |                              |               |  |                    |  |                |   |                            |                          |   |   |                                      | Plutonium-239/240  | 0.0351 U             | /                 | 0.032                | /                 |     |     |
|           |                              |               |  |                    |  |                |   |                            |                          |   |   |                                      | Strontium-90   | 0.304 J              | /                 | 0.237                | /                 |     |     |
|           |                              |               |  |                    |  |                |   |                            |                          |   |   |                                      | Hexavalent Chromium  | 0.81 UJ              | /                 | 0.030 U              | /                 |     |     |
|           |                              |               |  |                    |  |                |   |                            |                          |   |   |                                      | Lead   | /                    | /                 | 3.9                  | /                 |     |     |
|           |                              |               |  |                    |  |                |   |                            |                          |   |   |                                      | PCB  | 7.2 N                | /                 | 0.035 U              | /                 |     |     |
|           |                              |               |  |                    |  |                |   |                            |                          |   |   |                                      | Aroclor-1260   | 47                   | /                 | 0.035 U              | /                 |     |     |
| 100-D-23  | French Drain                 | 100-DR-2      | 0.67 m <sup>2</sup>  | 1959-1964          | Site received drainage from the 119-DR Sample Building floor drain.  | Interim Closed | WSRF 2003-053 CVP-2003-00018  | Jul. 2003                  | Jul. 2003                | Aug. 8, 2003                                | 14,011  | 4.6                                  | Refer to 122-DR-1:2  |                      |                   |                      |                   |     |     |
| 100-D-24  | French Drain                 | 100-DR-1      | 0.6 long x 0.6 wide x 3.1 deep   | 1959               | This site is a dry well that received drainage from a floor drain in the 119-D Sample Building. confirmation sampling demonstrated that residual contaminant concentrations support unrestricted land use. Therefore, this site is reclassified as a no action site.   | No Action      | WSRF/RSVP-2006-004  | N/A                        | N/A                      | confirmatory sampling done on Nov. 3, 2005. | N/A   | 3                                    | Uranium-233/234  | 0.567                | /                 | /                    | /                 |     |     |
|           |                              |               |  |                    |  |                |   |                            |                          |   |   |                                      | Uranium-238  | 0.657                | /                 | /                    | /                 |     |     |
|           |                              |               |  |                    |  |                |   |                            |                          |   |   |                                      | Arsenic  | 2.3                  | /                 | /                    | /                 |     |     |
|           |                              |               |  |                    |  |                |   |                            |                          |   |   |                                      | Barium   | 60.3 C               | /                 | /                    | /                 |     |     |
|           |                              |               |  |                    |  |                |   |                            |                          |   |   |                                      | Beryllium  | 0.27                 | /                 | /                    | /                 |     |     |
|           |                              |               |  |                    |  |                |   |                            |                          |   |   |                                      | Boron  | 1.9 C                | /                 | /                    | /                 |     |     |
|           |                              |               |  |                    |  |                |   |                            |                          |   |   |                                      | Cadmium  | 0.2                  | /                 | /                    | /                 |     |     |
|           |                              |               |  |                    |  |                |   |                            |                          |   |   |                                      | Chromium Total   | 6.2                  | /                 | /                    | /                 |     |     |
|           |                              |               |  |                    |  |                |   |                            |                          |   |   |                                      | Cobalt   | 7.6                  | /                 | /                    | /                 |     |     |
|           |                              |               |  |                    |  |                |   |                            |                          |   |   |                                      | Copper   | 15.3                 | /                 | /                    | /                 |     |     |
|           |                              |               |  |                    |  |                |   |                            |                          |   |   |                                      | Hexavalent Chromium  | 0.24                 | /                 | /                    | /                 |     |     |
|           |                              |               |  |                    |  |                |   |                            |                          |   |   |                                      | Lead   | 4.1                  | /                 | /                    | /                 |     |     |
|           |                              |               |  |                    |  |                |   |                            |                          |   |   |                                      | Manganese  | 295 C                | /                 | /                    | /                 |     |     |
|           |                              |               |  |                    |  |                |   |                            |                          |   |   |                                      | Mercury  | 0.06                 | /                 | /                    | /                 |     |     |
|           |                              |               |  |                    |  |                |   |                            |                          |   |   |                                      | Molybdenum   | 0.47                 | /                 | /                    | /                 |     |     |
|           |                              |               |  |                    |  |                |   |                            |                          |   |   |                                      | Nickel   | 9.8                  | /                 | /                    | /                 |     |     |
|           |                              |               |  |                    |  |                |   |                            |                          |   |   |                                      | Vanadium   | 48.7                 | /                 | /                    | /                 |     |     |
|           |                              |               |  |                    |  |                |   |                            |                          |   |   |                                      | Zinc   | 41.6                 | /                 | /                    | /                 |     |     |
|           |                              |               |  |                    |  |                |   |                            |                          |   |   |                                      | Di-n-butylphthalate  | 0.022 J              | /                 | /                    | /                 |     |     |
| 100-D-25  | Unplanned Release            | 100-DR-1      | could not be distinguished from other contaminated soil beneath 116-DR-9 basin | 1951               | Site is located beneath the 107-DR Retention basin. Release is the result of retention basin leaks. The effluent volume release is unknown. During remediation of 116-DR-9, 100-D-25 could not be distinguished from other contaminated soil and was remediated with 116-DR-9 under the provisions for "proximity sites."                        | Interim Closed | WSRF 99-106 CVP-99-00006 (pg 3 of 145)  | Oct. 21, 1997              | Dec. 28, 1998            | Feb. 18 and Mar. 11, 1999                   | 201,519   | 4.75                                 | Refer to 116-DR-9  |                      |                   |                      |                   |     |     |
| 100-D-26  | Depression/Pit (nonspecific) | 100-DR-1      | 100 m diameter   | Not Documented     | The borrow pit may have been used as a source of fill at reactor or at the 107-DR Retention basins (116-DR-9) during construction. The site may also have been used later as a source of fill for the nearby 628-3 burn pit.   | Not Accepted   | TPA-MP-14 WIDS Discovery Site Evaluation checklist approved by the Regulators | N/A                        | N/A                      | N/A   | N/A   | N/A                                  | N/A  | N/A                  | N/A               | N/A                  | N/A               | N/A | N/A |
| 100-D-27  | Unplanned Release            | 100-DR-2      | 59.08 m <sup>2</sup>   | 6/1/1995           | Site consists of an unplanned release within the 151-D Electrical Substation. 400 L (106 gal) of PCB was released. The concentration of PCB in the liquid was 42 ppm. The transformer was repaired, facility was power washed, all contaminated material was shoveled into seven 208-L (55gal) drums, and the site backfilled with clean gravel. | Closed Out     | WSRF 2005-014   | June ?,1995                | Aug.?, 1995              | None  | 1,456 L (385 gal) of contaminated material drummed. | N/A                                  | No more than 0.016 kg (0.04 lb) of PCB was released, which is significantly less than the CERCLA requirement of 0.45 kg (0.04 lb). |                      |                   |                      |                   |     |     |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code              | Site Type         | Operable Unit | Site Dimensions (m) | Dates of Operation | Site History   | Class Status   | Decision/Closeout Report | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration      |                      |                   |                      | 95% UCL           |  |
|------------------------|-------------------|---------------|---------------------|--------------------|--|----------------|--------------------------|----------------------------|--------------------------|----------------------------|---|--------------------------------------|----------------------------|----------------------|-------------------|----------------------|-------------------|--|
|                        |                   |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | COC                        | (pCi/g, mg/kg)       |                   | (pCi/g, mg/kg)       |                   |  |
|                        |                   |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      |                            | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |  |
| 100-D-28:1             | Septic Tank       | 100-DR-2      | 1.1 x 2.3 x 1.5     | Not Documented     | 100-D-28 consists of two septic systems that formerly serviced the 190-DR Pumphouse; the original and the replacement. 100-D-28:1 is the replacement system and consists of a 2,730-L (720-gal) steel septic tank and vitrified clay pipe drain field. 100-D-28:2 is the original system and consists of a 2,839-L (750-gal) septic tank and drain field.  | Interim Closed | WSRF-2011-047            | Jul-10                     | Aug-10                   | Apr-11                     | 2,769 BCM                                       | 5 m                                  | Antimony                   | 0.38                 | /                 | —                    | N/A               |  |
|                        |                   |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Arsenic                    | —                    | /                 | 2.208                |                   |  |
|                        |                   |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Barium                     | —                    | /                 | 63.46588423          |                   |  |
|                        |                   |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Beryllium                  | 0.09                 | /                 | —                    |                   |  |
|                        |                   |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Boron                      | 1.3                  | /                 | —                    |                   |  |
|                        |                   |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Cadmium                    | —                    | /                 | 0.093                |                   |  |
|                        |                   |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Chromium (total)           | —                    | /                 | 9.985132933          |                   |  |
|                        |                   |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Cobalt                     | —                    | /                 | 8.062902717          |                   |  |
|                        |                   |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Copper                     | —                    | /                 | 15.204               |                   |  |
|                        |                   |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Hexavalent chromium        | 0.247                | /                 | —                    |                   |  |
|                        |                   |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Lead                       | —                    | /                 | 7.422345651          |                   |  |
|                        |                   |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Manganese                  | /                    | /                 | 302.63               | /                 |  |
|                        |                   |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Mercury                    | /                    | /                 | 0.15                 | /                 |  |
|                        |                   |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Molybdenum                 | 0.41                 | /                 | /                    | /                 |  |
|                        |                   |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Nickel                     | /                    | /                 | 11.90                | /                 |  |
|                        |                   |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Selenium                   | 1.7                  | /                 | /                    | /                 |  |
|                        |                   |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Vanadium                   | /                    | /                 | 54.12                | /                 |  |
|                        |                   |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Zinc                       | /                    | /                 | 57.54                | /                 |  |
|                        |                   |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Acenaphthene               | 0.045                | /                 | /                    | /                 |  |
|                        |                   |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Anthracene                 | 0.11                 | /                 | /                    | /                 |  |
|                        |                   |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Benzo(a)anthracene         | /                    | /                 | 0.03                 | /                 |  |
|                        |                   |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Benzo(a)pyrene             | 0.085                | /                 | /                    | /                 |  |
|                        |                   |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Benzo(b)fluoranthene       | /                    | /                 | 0.03                 | /                 |  |
|                        |                   |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Benzo(ghi)perylene         | 0.021                | /                 | /                    | /                 |  |
|                        |                   |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Benzo(k)fluoranthene       | 0.025                | /                 | /                    | /                 |  |
|                        |                   |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Bis(2-ethylhexyl)phthalate | 0.16                 | /                 | /                    | /                 |  |
|                        |                   |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Carbazole                  | /                    | /                 | /                    | /                 |  |
| Chrysene               | /                 | /             | 0.04                | /                  |  |                |                          |                            |                          |                            |   |                                      |                            |                      |                   |                      |                   |  |
| Dibenzofuran           | 0.043             | /             | /                   | /                  |  |                |                          |                            |                          |                            |   |                                      |                            |                      |                   |                      |                   |  |
| Di-n-octylphthalate    | 0.083             | /             | /                   | /                  |  |                |                          |                            |                          |                            |   |                                      |                            |                      |                   |                      |                   |  |
| Fluoranthene           | 0.042             | /             | /                   | /                  |  |                |                          |                            |                          |                            |   |                                      |                            |                      |                   |                      |                   |  |
| Fluorene               | 0.05              | /             | /                   | /                  |  |                |                          |                            |                          |                            |   |                                      |                            |                      |                   |                      |                   |  |
| Indeno(1,2,3-cd)pyrene | 0.053             | /             | /                   | /                  |  |                |                          |                            |                          |                            |   |                                      |                            |                      |                   |                      |                   |  |
| Naphthalene            | 0.046             | /             | /                   | /                  |  |                |                          |                            |                          |                            |   |                                      |                            |                      |                   |                      |                   |  |
| Phenanthrene           | 0.32              | /             | /                   | /                  |  |                |                          |                            |                          |                            |   |                                      |                            |                      |                   |                      |                   |  |
| Phenol                 | 0.028             | /             | /                   | /                  |  |                |                          |                            |                          |                            |   |                                      |                            |                      |                   |                      |                   |  |
| Pyrene                 | /                 | /             | 0.07                | /                  |  |                |                          |                            |                          |                            |   |                                      |                            |                      |                   |                      |                   |  |
| 100-D-28:2             | Septic Tank       | 100-DR-2      | 11.5 x 5            | Not Documented     | Site consisted of a septic tank and drain field. The tank capacity was 2,839-liters. It does not appear that the 100-D-28:2 septic tank and tile field could have survived the construction of the 190-DR Annex. Likely a new septic system (100-D-28:1) was installed per drawing H-9923, southwest of the 190-DR as a replacement system. based on the historical documentation, the 100-D-28:2 septic system has not existed or been used in over 50 years. | Rejected       | WSRF 2005-015            | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A                        | N/A                  | N/A               | N/A                  | N/A               |  |
| 100-D-29               | Unplanned Release | 100-DR-1      | 80.7 x 11           | 1951               | This site is an unplanned release of effluent water from the reactor cooling water (effluent line leak No. 2) and is located southeast of the 107-DR basin (116-DR-9).   | Interim Closed | WSRF/RSVP-2009-038       | Mar. 7, 2008               | Mar. 28, 2008            | Jun. 3-4, 2009             | 5,200 bank Cubic meters                         | 4.6                                  | Cesium-137                 | 0.0835               | /                 | 0.0174               | /                 |  |
|                        |                   |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Tritium (H-3)              | 0.0135               | /                 | 0.01                 | /                 |  |
|                        |                   |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Uranium-234                | 0.543                | /                 | 0.253                | /                 |  |
|                        |                   |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Uranium-235                | 0.0285 J             | /                 | 0.0128               | /                 |  |
|                        |                   |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Uranium-238                | 0.612                | /                 | 0.28                 | /                 |  |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code  | Site Type         | Operable Unit | Site Dimensions (m)                     | Dates of Operation | Site History  | Class Status   | Decision/Closeout Report | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration           |   |                   |                      | 95% UCL           |     |     |
|------------|-------------------|---------------|---|--------------------|---|----------------|--------------------------|----------------------------|--------------------------|----------------------------|---|--------------------------------------|---------------------------------|---|-------------------|----------------------|-------------------|-----|-----|
|            |                   |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | COC                             | (pCi/g, mg/kg)  |                   | (pCi/g, mg/kg)       |                   |     |     |
|            |                   |               |   |                    |   |                |                          |                            |                          |                            |   |                                      |                                 | Shallow <sup>a</sup>  | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |     |     |
|            |                   |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Antimony                        | 0.79 B  | /                 | 0.6                  | /                 |     |     |
|            |                   |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Arsenic                         | 3.5   | /                 | 2.8                  | /                 |     |     |
|            |                   |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Barium                          | 78  | /                 | 68                   | /                 |     |     |
|            |                   |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Chromium                        | 9.6   | /                 | 8.2                  | /                 |     |     |
|            |                   |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Cobalt                          | 7.5   | /                 | 7.2                  | /                 |     |     |
|            |                   |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Lead                            | 3.6   | /                 | 3.1                  | /                 |     |     |
|            |                   |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Manganese                       | 320   | /                 | 293                  | /                 |     |     |
|            |                   |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Nickel                          | 11  | /                 | 9.7                  | /                 |     |     |
|            |                   |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Vanadium                        | 67  | /                 | 61                   | /                 |     |     |
|            |                   |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Zinc                            | 45 L  | /                 | 41                   | /                 |     |     |
|            |                   |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Beryllium                       | 0.24 B  | /                 | /                    | /                 |     |     |
|            |                   |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Boron                           | 18 MN   | /                 | /                    | /                 |     |     |
|            |                   |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Cadmium                         | 0.05 B  | /                 | /                    | /                 |     |     |
|            |                   |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Mercury                         | 0.01 B  | /                 | /                    | /                 |     |     |
|            |                   |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Molybdenum                      | 0.29 BM   | /                 | /                    | /                 |     |     |
| 100-D-3    | Burial Ground     | 100-DR-1      | 384.9 m <sup>2</sup>                    | Not Documented     | Small covered trench with concrete marker and brass cap. Disposal of silica gel from the 115-D/DR Drying Towers. Potentially contaminated with radioactive and hazardous materials. | No Action      | WSRF/RSVP-2008-017       | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A                             | There is little historical information available to identify the precise location of the 100-D-3 waste site. Considerable effort was made to identify and investigate possible locations where the silica gel may have been buried. The primary location for the silica gel pit was excavated during remediation of waste site 116-D-2. The alternate locations based on interpretation of geophysical survey data were excavated and sampled. Neither location contained evidence of silica gel. |                   |                      |                   |     |     |
| 100-D-30   | Unplanned Release | 100-DR-1      | 92.7 x 1 x 3, 117 x 11.6                | 1945-1967          | Sodium dichromate contamination was discovered in the soil along the entire length of the 185-D Sodium Dichromate Trench.   | Accepted       | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A                             | N/A   | N/A               | N/A                  | N/A               | N/A | N/A |
| 100-D-31:1 | Process Sewer     | 100-DR-1      | 400 linear m                            | 1944-1994          | The 100-D-31:1, 1607-D2 septic sewer pipeline, transported sanitary sewage from the 100-D-31:2 and 100-D-31:3 feeder sewers to the 1607-D2 septic system.                           | Interim Closed | WSRF/RSVP-2010-005       | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A                             | Samples Exc-2, Exc-4, Exc-6 and Exc-1 1 exceed the soil cleanup value for protection of groundwater for hexavalent chromium (0.2 mg/kg using a Kd of 0 mL/g with WAC 173-340 Equation 747-1 (2007)). This causes the hazard quotient for Cr (VI) and the hazard index for contaminants toxic to the kidney to exceed 1 for these locations. The 95% UCL for the excavation also exceeds 0.2 mg/kg for Cr (VI).  |                   |                      |                   |     |     |
| 100-D-31:2 | Process Sewer     | 100-DR-1      | 7567.2 (includes all 100-D-31 subsites) | 1944-1994          | The 100-D-31:2 sanitary sewers formerly serviced 1700-series facilities, discharging to the 100-D-31:1 main line.   | Interim Closed | WSRF/RSVP-2010-006       | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A                             | Samples Exc-2, Exc-4, Exc-6 and Exc-1 1 exceed the soil cleanup value for protection of groundwater for hexavalent chromium (0.2 mg/kg using a Kd of 0 mL/g with WAC 173-340 Equation 747-1 (2007)). This causes the hazard quotient for Cr (VI) and the hazard index for contaminants toxic to the kidney to exceed 1 for these locations. The 95% UCL for the excavation also exceeds 0.2 mg/kg for Cr (VI).  |                   |                      |                   |     |     |
| 100-D-31:3 | Sewer Pipelines   | 100-DR-1      | 7567.2 (includes all 100-D-31 subsites) | 1944-1994          | The 100-D-31:3 sanitary sewers formerly serviced the 105-D, 108-D, 1700-series facilities, discharging to the 100-D-31:1 main line.   | Interim Closed | WSRF/RSVP-2010-049       | 5/19/2008                  | 12/30/2008               | June 7 to Jan. 21, 20011   | 7,687 BCM                                       | 3.5                                  | Cesium-137                      | /   | /                 | 0.0327               | /                 |     |     |
|            |                   |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Total beta                      | /   | /                 | 0.0744               | /                 |     |     |
|            |                   |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | radiostrontium                  | /   | /                 | /                    | /                 |     |     |
|            |                   |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Uranium-233/234                 | /   | /                 | 0.724                | /                 |     |     |
|            |                   |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Uranium-238                     | /   | /                 | 0.841                | /                 |     |     |
|            |                   |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Arsenic                         | /   | /                 | 2.2                  | /                 |     |     |
|            |                   |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Barium                          | /   | /                 | 66.5                 | /                 |     |     |
|            |                   |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Beryllium                       | /   | /                 | 0.15                 | /                 |     |     |
|            |                   |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Boron                           | 1.3   | /                 | /                    | /                 |     |     |
|            |                   |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Cadmium                         | /   | /                 | 0.072                | /                 |     |     |
|            |                   |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Chromium Total                  | /   | /                 | 7.8                  | /                 |     |     |
|            |                   |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Cobalt                          | /   | /                 | 9.4                  | /                 |     |     |
|            |                   |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Copper                          | /   | /                 | 18.5                 | /                 |     |     |
|            |                   |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Hexavalent Chromium             | 0.181   | /                 | 0.177                | /                 |     |     |
|            |                   |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Lead                            | /   | /                 | 3.4                  | /                 |     |     |
|            |                   |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Manganese                       | /   | /                 | 317                  | /                 |     |     |
|            |                   |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Mercury                         | /   | /                 | 0.021                | /                 |     |     |
|            |                   |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Molybdenum                      | 0.48  | /                 | /                    | /                 |     |     |
|            |                   |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Nickel                          | /   | /                 | 9.7                  | /                 |     |     |
|            |                   |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Selenium                        | 1.2   | /                 | /                    | /                 |     |     |
|            |                   |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Sulfate                         | /   | /                 | /                    | /                 |     |     |
|            |                   |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Vanadium                        | /   | /                 | 70.9                 | /                 |     |     |
|            |                   |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Zinc                            | /   | /                 | 47.8                 | /                 |     |     |
|            |                   |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Chloride                        | 4.8   | /                 | /                    | /                 |     |     |
|            |                   |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Fluoride                        | 1   | /                 | /                    | /                 |     |     |
|            |                   |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Nitrogen in Nitrate             | 2   | /                 | /                    | /                 |     |     |
|            |                   |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Nitrogen in Nitrite             | 0.41  | /                 | /                    | /                 |     |     |
|            |                   |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Nitrogen in Nitrate and Nitrite | /   | /                 | 1.1                  | /                 |     |     |
|            |                   |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Sulfate                         | /   | /                 | 14                   | /                 |     |     |
|            |                   |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | TPH-diesel range                | 6.1   | /                 | /                    | /                 |     |     |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code  | Site Type     | Operable Unit | Site Dimensions (m)                     | Dates of Operation | Site History  | Class Status   | Decision/Closeout Report | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration           |                      |                   |                      | 95% UCL           |  |
|------------|---------------|---------------|---|--------------------|---|----------------|--------------------------|----------------------------|--------------------------|----------------------------|---|--------------------------------------|---------------------------------|----------------------|-------------------|----------------------|-------------------|--|
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | (pCi/g, mg/kg)                  |                      |                   |                      | (pCi/g, mg/kg)    |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | COC                             | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | TPH-diesel range extend         | /                    | /                 | 14                   | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Methylene chloride              | /                    | /                 | 2                    | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Acenaphthene                    | 0.1                  | /                 | /                    | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Anthracene                      | 0.2                  | /                 | /                    | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Benzo(a)anthracene              | 0.042                | /                 | 0.0621               | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Benzo(a)pyrene                  | 0.31                 | /                 | /                    | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Benzo(b)fluoranthene            | 0.27                 | /                 | /                    | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Benzo(ghi)perylene              | 0.28                 | /                 | /                    | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Benzo(k)fluoranthene            | 0.16                 | /                 | /                    | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Chrysene                        | 0.3                  | /                 | /                    | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Fluoranthene                    | 0.6                  | /                 | /                    | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Fluorene                        | 0.059                | /                 | /                    | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Indeno(1,2,3-cd) pyrene         | 0.25                 | /                 | /                    | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Bis(2-ethylhexyl)phthalate      | 4.3                  | /                 | /                    | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Naphthalene                     | 0.047                | /                 | /                    | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Phenanthrene                    | 0.41                 | /                 | /                    | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Pyrene                          | 0.63                 | /                 | /                    | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Bis(2-ethylhexyl)phthalate      | 0.0043               | /                 | /                    | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Dimethyl phthalate              | 0.12                 | /                 | /                    | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | 4,4'DDE                         | 0.029                | /                 | /                    | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | 4,4'DDT                         | 0.0056               | /                 | /                    | /                 |  |
| 100-D-31:4 | Process Sewer | 100-DR-1      | 7567.2 (includes all 100-D-31 subsites) | 1944-1994          | The 100-D-31:4 subsite includes two functionally separate pipeline networks: 1) sanitary sewers formerly servicing the 186-D and 190-D facilities, discharging to the 100-D-31:3 sanitary sewers; 2) continuation of process sewers from 100-D-31:8, including direct connections from the 186-D and 190-D facilities, discharging to the 100-D-31:7 main line. | Interim Closed | WSRF/RSVP-2010-050       | 9/26/2008                  | 12/10/2009               | June 7 to Jan. 21, 20011   | 9,883 BCM                                       | 4.8                                  | Cesium-137                      | /                    | /                 | 0.0327               | N/A               |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Total beta radiostrontium       | /                    | /                 | 0.0744               | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Uranium-233/234                 | /                    | /                 | 0.572                | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Uranium-238                     | /                    | /                 | 0.657                | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Arsenic                         | /                    | /                 | 2.1                  | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Beryllium                       | /                    | /                 | 0.13                 | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Boron                           | 1.3                  | /                 | /                    | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Cadmium                         | /                    | /                 | 0.085                | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Chromium Total                  | /                    | /                 | 7.5                  | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Cobalt                          | /                    | /                 | 11.1                 | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Copper                          | /                    | /                 | 18.5                 | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Hexavalent Chromium             | 0.177                | /                 | 0.396                | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Lead                            | /                    | /                 | 4.6                  | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Manganese                       | /                    | /                 | 318                  | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Mercury                         | /                    | /                 | 0.036                | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Molybdenum                      | 0.48                 | /                 | /                    | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Nickel                          | /                    | /                 | 10                   | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Selenium                        | 1.2                  | /                 | /                    | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Sulfate                         | /                    | /                 | 4.3                  | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Vanadium                        | /                    | /                 | 84.6                 | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Zinc                            | /                    | /                 | 48.6                 | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Chloride                        | 3.5                  | /                 | /                    | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Fluoride                        | 1                    | /                 | /                    | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Nitrogen in Nitrate             | -0.73                | /                 | /                    | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Nitrogen in Nitrite             | 0.41                 | /                 | /                    | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Nitrogen in Nitrate and Nitrite | 0.59                 | /                 | 0.38                 | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Sulfate                         | /                    | /                 | 14                   | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | TPH-diesel range                | 25                   | /                 | 2.4                  | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | TPH-diesel range extend         | /                    | /                 | 103.29               | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Acetone                         | 0.0074               | /                 | /                    | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Methylene chloride              | /                    | /                 | 0.0013               | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Acenaphthene                    | 0.1                  | /                 | /                    | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Anthracene                      | 0.7                  | /                 | /                    | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Benzo(a)anthracene              | 2.4                  | /                 | 0.0621               | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Benzo(a)pyrene                  | 1.9                  | /                 | /                    | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Benzo(b)fluoranthene            | 1.6                  | /                 | /                    | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Benzo(ghi)perylene              | 0.4                  | /                 | /                    | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Benzo(k)fluoranthene            | 0.92                 | /                 | /                    | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Chrysene                        | 1.9                  | /                 | /                    | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Dibenz(a,h)anthracene           | 0.22                 | /                 | /                    | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Fluoranthene                    | 4.2                  | /                 | /                    | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Fluorene                        | 0.059                | /                 | /                    | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Indeno(1,2,3-cd) pyrene         | 1.2                  | /                 | /                    | /                 |  |
|            |               |               |   |                    |   |                |                          |                            |                          |                            |   |                                      | Bis(2-ethylhexyl)phthalate      | 0.3                  | /                 | /                    | /                 |  |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code  | Site Type     | Operable Unit | Site Dimensions (m)                     | Dates of Operation | Site History   | Class Status   | Decision/Closeout Report | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date        | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration      |                      |                   |                      | 95% UCL           |   |
|------------|---------------|---------------|---|--------------------|--|----------------|--------------------------|----------------------------|--------------------------|-----------------------------------|---|--------------------------------------|----------------------------|----------------------|-------------------|----------------------|-------------------|---|
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | (pCi/g, mg/kg)             |                      |                   |                      | (pCi/g, mg/kg)    |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | COC                        | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Naphthalene                | 0.047                | /                 | /                    | /                 | / |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Phenanthrene               | 1.7                  | /                 | /                    | /                 | / |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Pyrene                     | 4.9                  | /                 | /                    | /                 | / |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | 2-methylnaphthalene        | 0.0023               | /                 | /                    | /                 | / |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Bis(2-ethylhexyl)phthalate | 0.003                | /                 | /                    | /                 | / |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Dimethyl phthalate         | 0.024                | /                 | /                    | /                 | / |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Carbazole                  | 0.23                 | /                 | /                    | /                 | / |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Di-n-butylphthalate        | 0.24                 | /                 | /                    | /                 | / |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Di-n-octylphthalate        | 0.092                | /                 | /                    | /                 | / |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | 4,4'DDE                    | 0.029                | /                 | /                    | /                 | / |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | 4,4'DDT                    | 0.0056               | /                 | /                    | /                 | / |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | gamma-Chlordane            | 0.0037               | /                 | /                    | /                 | / |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Aroclor-1254               | 0.019                | /                 | /                    | /                 | / |
| 100-D-31:5 | Process Sewer | 100-DR-1      | 135 linear m                            | 1950-1960          | These pipelines ran from the 184-D powerhouse and carried a slurry of coal ash and raw river water. The slurry was transported to the 188-D ash disposal basin (126-D-1 waste site).   | Interim Closed | WSRF/RSVP-2008-058       | Oct. 29, 2007              | Jan. 9, 2008             | Aug. 26; Oct. 13; & Dec. 30, 2008 | 852 BCM   | 1.7                                  | Antimony                   | 0.74 UJ              | /                 | /                    | /                 | / |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Arsenic                    | 3.8                  | /                 | 3.2                  | /                 |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Barium                     | 214 J                | /                 | 139                  | /                 |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Beryllium                  | 0.39                 | /                 | 0.20(<BG)            | /                 |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Boron                      | 14.4 J               | /                 | 13.1                 | /                 |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Cadmium                    | 0.26                 | /                 | 0.24(<BG)            | /                 |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Chloride                   | 9.8                  | /                 | /                    | /                 |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Chromium Total             | 13.3                 | /                 | 12.3(<BG)            | /                 |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Cobalt                     | 9.1                  | /                 | 8.1(<BG)             | /                 |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Copper                     | 16.9                 | /                 | 15.6(<BG)            | /                 |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Lead                       | 14                   | /                 | 7.3(<BG)             | /                 |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Manganese                  | 351                  | /                 | 332(<BG)             | /                 |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Mercury                    | 0.24                 | /                 | /                    | /                 |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Molybdenum                 | 0.7                  | /                 | /                    | /                 |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Nickel                     | 14                   | /                 | 12.6                 | /                 |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Nitrate                    | 60.0 J               | /                 | 23.7                 | /                 |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Selenium                   | 1.5 U                | /                 | /                    | /                 |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Sulfate                    | 577 D                | /                 | 547                  | /                 |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Vanadium                   | 63.7                 | /                 | 54.3(<BG)            | /                 |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Zinc                       | 182                  | /                 | 85                   | /                 |   |
| 100-D-31:6 | Process Sewer | 100-DR-1      | 7567.2 (includes all 100-D-31 subsites) | 1944-1994          | This subsite includes a total of 4 pipeline segments. 3 of these were process sewer pipelines and the 4th was a sanitary sewer pipeline, all of which exited the 184-D building.   | Interim Closed | WSRF/RSVP-2008-054       | Nov. 1, 2007               | Mar. 5, 2008             | Oct. 7, 2008                      | 371 bank Cubic Meters                           | between 1.5 and 3.3                  | Antimony                   | 0.8                  | /                 | /                    | /                 |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Arsenic                    | 6.7                  | /                 | 3.8                  | /                 |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Barium                     | 160                  | /                 | 102                  | /                 |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Beryllium                  | 1.4                  | /                 | 1.3                  | /                 |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Boron                      | 12                   | /                 | 6.9                  | /                 |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Cadmium                    | 0.16B                | /                 | 0.08                 | /                 |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Chromium Total             | 14                   | /                 | 11                   | /                 |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Cobalt                     | 9.3                  | /                 | 9                    | /                 |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Copper                     | 33                   | /                 | 27                   | /                 |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Hexavalent Chromium        | 0.364                | /                 | /                    | /                 |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Lead                       | 15                   | /                 | 7.9                  | /                 |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Manganese                  | 360                  | /                 | 330                  | /                 |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Mercury                    | 0.81                 | /                 | 11                   | /                 |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Molybdenum                 | 0.46                 | /                 | /                    | /                 |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Nickel                     | 16                   | /                 | 12                   | /                 |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Vanadium                   | 71                   | /                 | 66                   | /                 |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Zinc                       | 97                   | /                 | 63                   | /                 |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Chloride                   | 17                   | /                 | 13                   | /                 |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Fluoride                   | 1.7                  | /                 | 1.1                  | /                 |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Nitrate (as Nitrogen)      | /                    | /                 | 12                   | /                 |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Sulfate                    | 230                  | /                 | 79                   | /                 |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | benzo(a)anthracene         | 0.008                | /                 | /                    | /                 |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Chrysene                   | 0.0093               | /                 | /                    | /                 |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Phenanthrene               | 0.02                 | /                 | /                    | /                 |   |
| 100-D-31:7 | Process Sewer | 100-DR-1      | 7567.2 (includes all 100-D-31 subsites) | 1944-1994          | The 100-D-31:7, 116-D-5 and D-Pond Sewer Pipeline subsite includes functionally separate process and sanitary sewers. During reactor operations, the nonradioactive overflows, process cooling waste streams, filter backwashes, and floor drains in nonradioactive areas became process sewer wastes. The 100-D-31:7 main pipeline carried water treatment waste and rainwater runoff to the 116-D-5 Outfall until 1977, when the | Interim Closed | RSVP-2010-046            | Nov. 5, 2007               | Dec. 9, 2009             | Apr. 27 & 29, 2010                | 17,684 BCM                                      | 12 to 16                             | Excavation                 |                      | Overburden        |                      |                   |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Maximum                    | 95% UCL              | Maximum           | 95% UCL              |                   |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Strontium-90               | /                    | /                 | 0.105                | 0.041             |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Uranium-233/234            | 0.14                 | 0.091             | 0.206                | 0.157             |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Uranium-238                | 0.14                 | 0.1               | 0.251                | 0.156             |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Arsenic                    | 1.9                  | 1.1               | 2.8                  | 2                 |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Barium                     | 80.3 J               | 66.3              | 88.0 L               | 65.1              |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Chromium                   | 14.1 J               | 7                 | 7.8                  | 6                 |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Cobalt                     | 11.2 L               | 10.4              | 9.3 L                | 8.7               |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Copper                     | 19.0 J               | 17.9              | 20.4                 | 19.3              |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Lead                       | 2.4                  | 1.8               | 3.4                  | 2.7               |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Manganese                  | 378 L                | 333               | 325                  | 301               |   |
|            |               |               |   |                    |  |                |                          |                            |                          |                                   |   |                                      | Nickel                     | 11.6 L               | 9.8               | 10.5                 | 9.1               |   |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code  | Site Type     | Operable Unit | Site Dimensions (m)                     | Dates of Operation | Site History   | Class Status   | Decision/Closeout Report | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration   |                      |                   |                      | 95% UCL           |  |
|------------|---------------|---------------|---|--------------------|--|----------------|--------------------------|----------------------------|--------------------------|----------------------------|---|--------------------------------------|---|----------------------|-------------------|----------------------|-------------------|--|
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | COC   | (pCi/g, mg/kg)       |                   | (pCi/g, mg/kg)       |                   |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      |   | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |  |
|            |               |               |   |                    | process sewer drainage was diverted solely to the 100-D Ponds (120-D-1) from 1977 to 1994. The 100-D-31:7 process sewer received effluent from the following facilities: 105-D, 182-D, 183-D, 184-D, 185-D, 186-D, 189-D, and 190-D. The 100-D-31:7 sanitary sewer is a connection between the 100-D-31:6 and 100-D-31:2 sewers. |                |                          |                            |                          |                            |   |                                      |   |                      |                   |                      |                   |  |
| 100-D-31:8 | Process Sewer | 100-DR-1      | 7567.2 (includes all 100-D-31 subsites) | 1944-1994          | The 100-D-31:8 pipeline includes functionally separate process and sanitary sewers that received waste from the 100-D-31:9, 100-D-31:10, 100-D-31:11, and 100-D-31:12 sewer pipelines, ultimately discharging to the 100-D-31:4 and 100-D-31:7 sewer pipelines.  | Interim Closed | RSVP-2010-032            | 27-Aug-09                  | 19-May-10                | 3-Mar-11                   | 5,732 BCM                                       | 9                                    | Vanadium  | 85.4 J               | 80.5              | 70.0 L               | 66.8              |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Zinc  | 50.3 J               | 48.3              | 46.0 L               | 42.7              |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Sulfate   | 44.7 J               | 12.8              | 17.8                 | 11.3              |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Beryllium   | 1.5                  | /                 | 1.7                  | /                 |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Mercury   | 0.13                 | /                 | /                    | /                 |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Molybdenum  | 0.29 B               | /                 | 0.65 B               | /                 |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | 2-butanone  | 0.002 JB             | /                 | 0.0021 J             | /                 |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Acetone   | 0.011 J              | /                 | 0.013 JB             | /                 |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Chloride  | 8.4                  | /                 | 4.1                  | /                 |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Nitrogen in nitrite and nitrate   | 1.8                  | /                 | 1                    | 0.85              |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | TPH - diesel range  | 0.97                 | /                 | 2.7 J                | 1.7               |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | TPH - diesel range Extended   | 1.1                  | /                 | 4.6                  | 2.8               |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Antimony  | /                    | /                 | 0.47 B               | /                 |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Cadmium   | /                    | /                 | 0.046 B              | /                 |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | benzo(a)anthracene  | /                    | /                 | 0.004 JX             | /                 |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Aroclor-1260  | /                    | /                 | 0.0082 JP            | /                 |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | DDE, 4, 4'  | /                    | /                 | 0.00067 J            | /                 |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Fluoride  | /                    | /                 | 1.3 B                | /                 |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Strontium-90  | /                    | /                 | /                    | 0.219             |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Uranium-234   | /                    | /                 | /                    | 0.248             |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Uranium-238   | /                    | /                 | /                    | 0.266             |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Arsenic   | /                    | /                 | /                    | 2.5               |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Barium  | /                    | /                 | /                    | 73.7              |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Boron   | /                    | 1.2               | /                    | /                 |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Cadmium   | /                    | /                 | /                    | 0.069             |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Chromium  | /                    | /                 | /                    | 7.2               |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Cobalt  | /                    | /                 | /                    | 8.5               |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Copper  | /                    | /                 | /                    | 15.3              |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Hexavalent Chromium   | /                    | 0.332             | /                    | /                 |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Lead  | /                    | /                 | /                    | 3.5               |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Mercury   | /                    | 0.018             | /                    | 0.0072            |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Molybdenum  | /                    | 0.63              | /                    | /                 |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Manganese   | /                    | /                 | /                    | 399               |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Nickel  | /                    | /                 | /                    | 10.2              |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Vanadium  | /                    | /                 | /                    | 64.8              |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Zinc  | /                    | /                 | /                    | 44.8              |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Sulfate   | /                    | /                 | /                    | 3.4               |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Chloride  | /                    | 27.5              | /                    | /                 |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Fluoride  | /                    | 3.6               | /                    | 1.1               |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Nitrogen in nitrate   | /                    | /                 | /                    | 1                 |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Nitrogen in nitrate and nitrite   | /                    | 1.4               | /                    | /                 |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | 1,1-Dichloroethene  | /                    | 0.0015            | /                    | /                 |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | 4,4'-DDT  | /                    | 0.63              | /                    | /                 |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Acetone   | /                    | 0.008             | /                    | /                 |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Benzo(a)anthracene  | /                    | 0.0065            | /                    | /                 |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Benzo(a)pyrene  | /                    | 0.012             | /                    | /                 |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Benzo(b)fluoranthene  | /                    | 0.012             | /                    | /                 |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Benzo(k) fluoranthene   | /                    | 0.0069            | /                    | /                 |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Bis(2-ethylhexyl)phthalate  | /                    | 0.11              | /                    | /                 |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Chrysene  | /                    | 0.013             | /                    | /                 |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Fluoranthene  | /                    | .0017             | /                    | /                 |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Methylene chloride  | /                    | /                 | /                    | 0.0012            |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Pyrene  | /                    | 0.0027            | /                    | /                 |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Toluene   | /                    | 0.0012            | /                    | /                 |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | TPH-diesel range  | /                    | 1.7               | /                    | /                 |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | TPH-diesel range EXT  | /                    | 2.1               | /                    | /                 |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Note: Although the excavation extends into the deep zone, the most restrictive interim cleanup criteria is applied. |                      |                   |                      |                   |  |
| 100-D-31:9 | Process Sewer | 100-DR-1      | 7567.2 (includes all 100-D-31 subsites) | 1944-1994          | The 100-D-31:9 pipelines consist of the 183-D and 186-D Buildings process sewer pipelines and the continuation of a process sewer main from 183-DR (100-D-50:7 subsite). The pipelines formerly discharged to  | Interim Closed | RSVP-2010-032            |                            |                          |                            |   |                                      | Uranium-234   | /                    | /                 | /                    | 0.229             |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Uranium-238   | /                    | /                 | /                    | 0.266             |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Arsenic   | /                    | /                 | /                    | 2.5               |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Barium  | /                    | /                 | /                    | 61.1              |  |
|            |               |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Boron   | /                    | 1.1               | /                    | /                 |  |



Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code   | Site Type         | Operable Unit | Site Dimensions (m)                         | Dates of Operation | Site History   | Class Status   | Decision/Closeout Report  | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration      |              |        |             | 95% UCL              |                   |
|-------------|-------------------|---------------|---|--------------------|--|----------------|---|----------------------------|--------------------------|----------------------------|---|--------------------------------------|----------------------------|--------------|--------|-------------|----------------------|-------------------|
|             |                   |               |   |                    |  |                |   |                            |                          |                            |   |                                      | (pCi/g, mg/kg)             |              |        |             | (pCi/g, mg/kg)       |                   |
|             |                   |               |   |                    |  |                |   |                            |                          |                            |   |                                      | COC                        |              |        |             | Shallow <sup>a</sup> | Deep <sup>b</sup> |
|             |                   |               |   |                    |  |                |   |                            |                          |                            |   |                                      | Bis(2-ethylhexyl)phthalate | /            | /      | /           | /                    |                   |
|             |                   |               |   |                    |  |                |   |                            |                          |                            |   |                                      | TPH-diesel range           | 1            | /      | 1.804       | /                    |                   |
|             |                   |               |   |                    |  |                |   |                            |                          |                            |   |                                      | TPH-diesel range EXT       | 5.7          | /      | 5.506       | /                    |                   |
| 100-D-31:11 | Process Sewer     | 100-DR-1      | 7567.2 (includes all 100-D-31 subsites)     | 1944-1994          | The 100-D-31:11, 182-D and 183-D process and sanitary sewer pipelines, transported effluents from the east side of the 182-D building and the west side of the 183-D Building. The 100-D-31:11 pipelines transported the waste water to the 100-D-31:8 pipelines.          | Accepted       | Not Documented  | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | NA                         | NA           | NA     | NA          | NA                   |                   |
| 100-D-31:12 | Process Sewer     | 100-DR-1      | 7567.2 (includes all 100-D-31 subsites)     | 1944-1994          | The 100-D-31:12 process sewer pipelines serviced the west side of the 183-D Building and discharged to the 100-D-31:11 process sewer pipelines.  | Accepted       | Not Documented  | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | NA                         | NA           | NA     | NA          | NA                   |                   |
| 100-D-32    | Burial Ground     | 100-DR-1      | 15.2 x 15.2                                 | 1956               | This site was planned for the disposal of contaminated equipment from the 105-D and 105-DR Reactor building and effluent system equipment. There was no documentation that the site was ever used. Some inert construction/demolition debris was found during remediation. | Interim Closed | WSRF 2009-008<br>CVP-2009-00003   | Aug. 28, 2007              | Jul. 31, 2008            | Not documented             | 600 BCM   | 3 (exploratory down to 6)            | Cesium-137                 | 0.188        | /      | 0.069       | /                    |                   |
|             |                   |               |   |                    |  |                |   |                            |                          |                            |   |                                      | Nickel-63                  | /            | /      | 1.86        | /                    |                   |
|             |                   |               |   |                    |  |                |   |                            |                          |                            |   |                                      | Uranium-233/234            | 0.822        | /      | 0.492 (<BG) | /                    |                   |
|             |                   |               |   |                    |  |                |   |                            |                          |                            |   |                                      | Uranium-235                | 0.164 U(GEA) | /      | /           | /                    |                   |
|             |                   |               |   |                    |  |                |   |                            |                          |                            |   |                                      | Uranium-238                | 4.47 U(GEA)  | /      | 0.499(<BG)  | /                    |                   |
|             |                   |               |   |                    |  |                |   |                            |                          |                            |   |                                      | Antimony                   | 1            | /      | 0.8(<BG)    | /                    |                   |
|             |                   |               |   |                    |  |                |   |                            |                          |                            |   |                                      | Arsenic                    | 4.4          | /      | 2.7(<BG)    | /                    |                   |
|             |                   |               |   |                    |  |                |   |                            |                          |                            |   |                                      | Barium                     | 79.7         | /      | 70.1(<BG)   | /                    |                   |
|             |                   |               |   |                    |  |                |   |                            |                          |                            |   |                                      | Beryllium                  | 1.4          | /      | 0.2(<BG)    | /                    |                   |
|             |                   |               |   |                    |  |                |   |                            |                          |                            |   |                                      | Boron                      | 2.8          | /      | 1.9         | /                    |                   |
|             |                   |               |   |                    |  |                |   |                            |                          |                            |   |                                      | Cadmium                    | 0.2          | /      | 0.2(<BG)    | /                    |                   |
|             |                   |               |   |                    |  |                |   |                            |                          |                            |   |                                      | Chromium Total             | 14.4 B       | /      | 11.4(<BG)   | /                    |                   |
|             |                   |               |   |                    |  |                |   |                            |                          |                            |   |                                      | Cobalt                     | 9.7          | /      | 7.9(<BG)    | /                    |                   |
|             |                   |               |   |                    |  |                |   |                            |                          |                            |   |                                      | Copper                     | 26.3         | /      | 14.9(<BG)   | /                    |                   |
|             |                   |               |   |                    |  |                |   |                            |                          |                            |   |                                      | Lead                       | 8.8          | /      | 6.7(<BG)    | /                    |                   |
|             |                   |               |   |                    |  |                |   |                            |                          |                            |   |                                      | Manganese                  | 455          | /      | 364(<BG)    | /                    |                   |
|             |                   |               |   |                    |  |                |   |                            |                          |                            |   |                                      | Molybdenum                 | 0.6 B        | /      | 0.5         | /                    |                   |
|             |                   |               |   |                    |  |                |   |                            |                          |                            |   |                                      | Nickel                     | 16.1         | /      | 12.3(<BG)   | /                    |                   |
|             |                   |               |   |                    |  |                |   |                            |                          |                            |   |                                      | Vanadium                   | 94.7         | /      | 77.2(<BG)   | /                    |                   |
|             |                   |               |   |                    |  |                |   |                            |                          |                            |   |                                      | Zinc                       | 80.7         | /      | 62.5(<BG)   | /                    |                   |
| 100-D-33    | Burial Ground     | 100-DR-1      | 30.48 x 15.24                               | 1954               | This site originally was considered to be a low-level waste burial ground for reactor waste. After performance of geophysical surveys and trenching, the site could not be located. 100-D-33 has been rejected as a waste site.  | Rejected       | WSRF 2007-023 plus attachments  | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | 4,4'-DDT                   | /            | 0.63   | /           | /                    |                   |
| 100-D-34    | Unplanned Release | 100-DR-1      | Not Documented                              | Not Documented     | This unaccepted waste site was originally proposed to address those areas not within other waste sites.  | Not Accepted   | Not Documented  | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | Acetone                    | /            | 0.008  | /           | /                    |                   |
| 100-D-35    | Burial Ground     | 100-DR-1      | 30.5 x 15.2 x 7.6                           | 1954               | This site originally was considered to be a low-level waste burial ground for reactor waste. After performance of geophysical surveys and trenching, the site could not be located. 100-D-35 has been rejected as a waste site.  | Rejected       | WSRF 2007-024 plus attachments  | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | Benzo(a)anthracene         | /            | 0.0065 | /           | /                    |                   |
| 100-D-36    | Foundation        | 100-DR-2      | 2.06 x 2.06; also documented as 1.8 x 1.8 m | Not Documented     | This site is the concrete pad of an environmental monitoring station.  | Not Accepted   | TPA-MP-14<br>WIDS Discovery Site<br>Evaluation checklist<br>approved by the<br>Regulators | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | Benzo(a)pyrene             | /            | 0.012  | /           | /                    |                   |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code    | Site Type     | Operable Unit | Site Dimensions (m)  | Dates of Operation | Site History  | Class Status   | Decision/Closeout Report  | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration      |   |                   |                      | 95% UCL            |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--------------|---------------|---------------|--|--------------------|---|----------------|---|----------------------------|--------------------------|----------------------------|---|--------------------------------------|----------------------------|---|-------------------|----------------------|--------------------|--------|--|--|--|--|--|--|--|--|--|--|--|--|--|
|              |               |               |  |                    |   |                |   |                            |                          |                            |   |                                      | COC                        | (pCi/g, mg/kg)  |                   | (pCi/g, mg/kg)       |                    |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
|              |               |               |  |                    |   |                |   |                            |                          |                            |   |                                      |                            | Shallow <sup>a</sup>  | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup>  |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 100-D-37     | Foundation    | 100-DR-2      | 2.06 x 2.06  | Not Documented     | This site is the concrete pad of an environmental monitoring station.   | Not Accepted   | TPA-MP-14 WIDS Discovery Site Evaluation checklist approved by the Regulators | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | Benzo(b)fluoranthene       | /   | 0.012             | /                    | /                  |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 100-D-38     | Septic Tank   | 100-DR-1      | Not Documented   | Not Documented     | This site originally was believed to be an independent septic system, but was determined to actually be a junction box and manhole associated with the 1607-D2 Septic System. The site was not accepted as a waste site because it is not a separate septic tank as identified. This manhole is included within the 100-D-31 sewer pipelines (at the juncture of the 1, 2, and 3 subsites). | Not Accepted   | TPA-MP-14 WIDS Discovery Site Evaluation checklist approved by the Regulators | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | Benzo(k) fluoranthene      | /   | 0.0069            | /                    | /                  |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 100-D-4      | Trench        | 100-DR-1      | 630 m <sup>2</sup> x 3.0, Other sources suggest dimension is 244 x 2.44 x undocumented depth | 1953               | Received sludge and effluent containing radioactive and hazardous materials from the 116-DR-9 (107-DR) Retention basins. This site is not documented as a high-volume liquid waste site.  | Interim Closed | WSRF 98-034 CVP-98-00004  | Mar. 18, 1997              | Mar. 27, 1997            | Sept. 24, 1997             | 1,678   | 2.9                                  | Bis(2-ethylhexyl)phthalate | /   | 0.11              | /                    | /                  |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
|              |               |               |  |                    |   |                |   |                            |                          |                            |   |                                      |                            | Chrysene  | /                 | 0.013                | /                  | /      |  |  |  |  |  |  |  |  |  |  |  |  |  |
|              |               |               |  |                    |   |                |   |                            |                          |                            |   |                                      |                            | Fluoranthene  | /                 | .0017                | /                  | /      |  |  |  |  |  |  |  |  |  |  |  |  |  |
|              |               |               |  |                    |   |                |   |                            |                          |                            |   |                                      |                            | Methylene chloride  | /                 | /                    | /                  | 0.0012 |  |  |  |  |  |  |  |  |  |  |  |  |  |
|              |               |               |  |                    |   |                |   |                            |                          |                            |   |                                      |                            | Pyrene  | /                 | 0.0027               | /                  | /      |  |  |  |  |  |  |  |  |  |  |  |  |  |
|              |               |               |  |                    |   |                |   |                            |                          |                            |   |                                      |                            | Toluene   | /                 | 0.0012               | /                  | /      |  |  |  |  |  |  |  |  |  |  |  |  |  |
|              |               |               |  |                    |   |                |   |                            |                          |                            |   |                                      |                            | TPH-diesel range  | /                 | 1.7                  | /                  | /      |  |  |  |  |  |  |  |  |  |  |  |  |  |
|              |               |               |  |                    |   |                |   |                            |                          |                            |   |                                      |                            | TPH-diesel range EXT  | /                 | 2.1                  | /                  | /      |  |  |  |  |  |  |  |  |  |  |  |  |  |
|              |               |               |  |                    |   |                |   |                            |                          |                            |   |                                      |                            | Note: Although the excavation extends into the deep zone, the most restrictive interim cleanup criteria is applied. |                   |                      |                    |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
|              |               |               |  |                    |   |                |   |                            |                          |                            |   |                                      |                            | Uranium-238   | 1.16              | /                    | /                  | /      |  |  |  |  |  |  |  |  |  |  |  |  |  |
|              |               |               |  |                    |   |                |   |                            |                          |                            |   |                                      |                            | Hexavalent Chromium   | 0.179 J           | /                    | 0.179 <sup>d</sup> | /      |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Aroclor-1260 | 0.12          | /             | 0.071 <sup>d</sup>   | /                  |   |                |   |                            |                          |                            |   |                                      |                            |   |                   |                      |                    |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Aroclor-1254 | 0.071         | /             | 0.12 <sup>d</sup>  | /                  |   |                |   |                            |                          |                            |   |                                      |                            |   |                   |                      |                    |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 100-D-40     | Burial Ground | 100-DR-2      | 6.1 (depth) x 12.19 (dia.)   | N/A                | This site originally was considered to be a low-level waste burial ground for reactor waste. After performance of geophysical surveys and trenching, the site could not be located. 100-D-40 has been rejected as a waste site.   | Rejected       | WSRF 2007-025   | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A                        | N/A   | N/A               | N/A                  | N/A                | N/A    |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 100-D-41     | Burial Ground | 100-DR-1      | 22.86 x 12.19  | N/A                | This site originally was considered to be a low-level waste burial ground for reactor waste. After performance of geophysical surveys and trenching, the site could not be located. 100-D-41 has been rejected as a waste site.   | Rejected       | WSRF 2007-026   | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A                        | N/A   | N/A               | N/A                  | N/A                | N/A    |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 100-D-42     | Burial Ground | 100-DR-1      | 276.6 m <sup>2</sup>   | 1955               | consists of a former solid waste burial ground believed to contain vertical safety rod thimbles.  | Interim Closed | WSRF 2009-012 CVP-2009-00004  | Apr. 22, 2008              | May. 13, 2008            | Nov. 18, 2008              | 530 BCM   | 5                                    | Excavation                 |   |                   |                      | Overburden         |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
|              |               |               |  |                    |   |                |   |                            |                          |                            |   |                                      | Maximum                    | 95% UCL   | Maximum           | 95% UCL              |                    |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
|              |               |               |  |                    |   |                |   |                            |                          |                            |   |                                      | Cesium-137                 | 0.159   | 0.066             | /                    | /                  |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
|              |               |               |  |                    |   |                |   |                            |                          |                            |   |                                      | Cobalt-60                  | 0.062   | 0.034             | /                    | /                  |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
|              |               |               |  |                    |   |                |   |                            |                          |                            |   |                                      | Antimony                   | 0.59  | 0.43              | 0.55                 | 0.55               |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
|              |               |               |  |                    |   |                |   |                            |                          |                            |   |                                      | Arsenic                    | 2.1   | 1.7               | 2.8                  | 2.4                |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
|              |               |               |  |                    |   |                |   |                            |                          |                            |   |                                      | Barium                     | 69.9  | 61                | 70                   | 61                 |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
|              |               |               |  |                    |   |                |   |                            |                          |                            |   |                                      | Beryllium                  | 0.29  | 0.25              | 0.27                 | 0.23               |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
|              |               |               |  |                    |   |                |   |                            |                          |                            |   |                                      | Boron                      | 2.6   | 1.4               | 1.2                  | 0.96               |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
|              |               |               |  |                    |   |                |   |                            |                          |                            |   |                                      | Cadmium                    | 0.13  | 0.14              | 0.11                 | 0.1                |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
|              |               |               |  |                    |   |                |   |                            |                          |                            |   |                                      | Chromium Total             | 9.9   | 8                 | 10.7                 | 9.1                |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
|              |               |               |  |                    |   |                |   |                            |                          |                            |   |                                      | Cobalt                     | 9.5   | 8.7               | 8.9                  | 8.4                |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
|              |               |               |  |                    |   |                |   |                            |                          |                            |   |                                      | Copper                     | 146 (C.)  | 51.3              | 51.3 (C.)            | 25.4               |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
|              |               |               |  |                    |   |                |   |                            |                          |                            |   |                                      | Lead                       | 8.5   | 4.8               | 4.6                  | 3.6                |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
|              |               |               |  |                    |   |                |   |                            |                          |                            |   |                                      | Manganese                  | 347 (C.)  | 313               | 338 (C.)             | 316                |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
|              |               |               |  |                    |   |                |   |                            |                          |                            |   |                                      | Molybdenum                 | 0.66  | 0.51              | 0.61                 | 0.52               |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
|              |               |               |  |                    |   |                |   |                            |                          |                            |   |                                      | Nickel                     | 11.3  | 9.6               | 10.8                 | 10.1               |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
|              |               |               |  |                    |   |                |   |                            |                          |                            |   |                                      | Vanadium                   | 77.3  | 69.4              | 68.7                 | 64                 |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
|              |               |               |  |                    |   |                |   |                            |                          |                            |   |                                      | Zinc                       | 99.7  | 57.8              | 45.7                 | 43.9               |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Mercury      | 0.02          | 0.02          | 0.02   | 0.02               |   |                |   |                            |                          |                            |   |                                      |                            |   |                   |                      |                    |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Selenium     | /             | /             | 0.7  | 0.7                |   |                |   |                            |                          |                            |   |                                      |                            |   |                   |                      |                    |        |  |  |  |  |  |  |  |  |  |  |  |  |  |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code  | Site Type                 | Operable Unit | Site Dimensions (m) | Dates of Operation | Site History  | Class Status   | Decision/Closeout Report        | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date     | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m)                         | Maximum Concentration |                      |                   |                      | 95% UCL            |  |
|------------|---------------------------|---------------|---------------------|--------------------|---|----------------|---------------------------------|----------------------------|--------------------------|--------------------------------|---|--|-----------------------|----------------------|-------------------|----------------------|--------------------|--|
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | COC                   | (pCi/g, mg/kg)       |                   | (pCi/g, mg/kg)       |                    |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  |                       | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup>  |  |
| 100-D-43   | Burial Ground             | 100-DR-2      | 21.3 x 7.6 x 4.6    | 1953-1967          | This site received irradiated reactor components (vertical safety rods) and hardware from modification made to the 105-D Reactor.                                 | Interim Closed | WSRF 2009-013<br>CVP-2009-00004 | Sept. 10, 2007             | Oct. 10, 2007            | Nov. 18, 2008                  | 803 BCM   | 5  | Refer to 100-D-42     |                      |                   |                      |                    |  |
| 100-D-45   | Burial Ground             | 100-DR-1      | 24.7 x 7.3 x 5.2    | Not Documented     | This site received irradiated reactor components (vertical safety rods).  | Interim Closed | WSRF 2009-014<br>CVP-2009-00004 | Sept. 6, 2007              | Jul. 23, 2008            | Nov. 18, 2008                  | 2,605 BCM                                       | 7  | Refer to 100-D-42     |                      |                   |                      |                    |  |
| 100-D-46   | Burial Ground             | 100-DR-2      | 45.7 x 6.1 x 7.6    | 1967               | This site received radioactive and nonradioactive solid wastes and construction debris from various reactor modifications in the 105-D Reactor.                   | Interim Closed | WSRF 2000-115<br>CVP-2000-00010 | Oct. 21, 1999              | Jul. 11, 2000            | Jul. 26, 2000 to Aug. 2, 2000  | 10,987  | 4.6  | Americium-241         | 0.150 U              | 4.32              | 0.173                | 1.12               |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Cobalt-60             | 0.043 U              | 7.81              | 0.0351               | 6.3                |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Cesium-137            | 1.28                 | 409               | 0.724                | 324                |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Europium-152          | 0.348                | 193               | 0.248                | 157                |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Europium-154          | 0.15 U               | 15.8              | 0.109                | 12.8               |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Plutonium-239/240     | 0.02 U               | 19                | 0.0797               | 8.76               |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Strontium-90          | 0.315 J              | 36.8              | 0.202                | 19.1               |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Uranium-238           | 0.607 J              | 0.56              | 0.476                | 0.437              |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Hexavalent Chromium   | 0.61                 | 4.7               | 0.61                 | 2.6                |  |
| 100-D-47   | Burial Ground             | 100-DR-2      | 69.5 x 57.0         | Not Documented     | The site is a burial ground used to dispose of waste during Project CG-558 rod burial.  | Interim Closed | WSRF 2009-002<br>CVP-2009-00002 | Jan. 16, 2008              | Mar. 20, 2008            | Nov. 25, 2008                  | 2,800 bank cubic meters                         | could not find in CVP, but only lists data for shallow zone. | Americium-241         | .277 U               | /                 | /                    | /                  |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Carbon-14             | .792 U               | /                 | /                    | /                  |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Cesium-137            | 0.687                | /                 | 0.032                | /                  |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Cobalt-60             | 0.604                | /                 | 0.144                | /                  |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Europium-152          | 1.52                 | /                 | 0.065                | /                  |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Europium-155          | 0.125 U              | /                 | /                    | /                  |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Nickel-63             | 36.2                 | /                 | 1.24                 | /                  |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Plutonium-238         | .06 U                | /                 | /                    | /                  |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Plutonium-239/240     | .18 U                | /                 | /                    | /                  |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Strontium-90          | 1.18                 | /                 | 0.233                | /                  |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Uranium-233/234       | 0.653                | /                 | .599(<BG)            | /                  |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Uranium-235           | .087 U               | /                 | .046(<BG)            | /                  |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Uranium-238           | 0.664                | /                 | .554(<BG)            | /                  |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Antimony              | 1.3 UJ               | /                 | /                    | /                  |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Arsenic               | 4.6                  | /                 | 3(<BG)               | /                  |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Barium                | 87.6                 | /                 | 75.2(<BG)            | /                  |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Beryllium             | 0.6                  | /                 | .5(<BG)              | /                  |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Boron                 | 1.9                  | /                 | 1.4                  | /                  |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Cadmium               | 0.3                  | /                 | .2(<BG)              | /                  |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Chromium Total        | 16.1                 | /                 | 12.2(<BG)            | /                  |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Hexavalent Chromium   | 0.32                 | /                 | /                    | /                  |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Cobalt                | 9.5                  | /                 | 8.0(<BG)             | /                  |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Copper                | 19.6                 | /                 | 15.1(<BG)            | /                  |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Lead                  | 5.1                  | /                 | 4.1(<BG)             | /                  |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Manganese             | 374                  | /                 | 339(<BG)             | /                  |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Molybdenum            | .6 B                 | /                 | 0.5                  | /                  |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Nickel                | 12.4                 | /                 | 11.3(<BG)            | /                  |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Selenium              | 1                    | /                 | /                    | /                  |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Silver                | 0.4 U                | /                 | /                    | /                  |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Vanadium              | 85.7                 | /                 | 70.7(<BG)            | /                  |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Zinc                  | 58                   | /                 | 49.4(<BG)            | /                  |  |
| 100-D-48:1 | Radioactive Process Sewer | 100-DR-1      | Varies              | 1944-1967          | This subsite is the section of the pipelines that transported radioactive treated and untreated wastewater runs from the 116-D-7 Retention basin to the Outfalls. | Interim Closed | WSRF 2000-126<br>CVP-2000-00003 | Dec. 28, 1998              | Jul. 24, 2000            | Apr. 3, 2000 to Aug. 8, 2000   | 107,266   | 6  | Cobalt-60             | 0.061 U              | 7.33              | 0.05                 | 5.29               |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Cesium-137            | 0.809                | 39.5              | 0.251                | 28.2               |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Europium-152          | 0.402                | 64.2              | 0.3                  | 34.2               |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Europium-154          | 0.15 U               | 8.01              | 0.12                 | 4.25               |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Plutonium-239/240     | 0.24 U               | 1.31              | 0.13                 | 0.449              |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Strontium-90          | 0.196 J              | 1.14              | 0.15                 | 0.607              |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Uranium-233/234       | 0.713 J              | 0.933 J           | 0.5                  | 0.57               |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Uranium-238           | 0.676 J              | 0.873 J           | 0.42                 | 0.554              |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Hexavalent Chromium   | 0.64 U               | 5                 | 0.64                 | 5                  |  |
| 100-D-48:2 | Radioactive Process Sewer | 100-DR-1      | Varies              | 1944-1967          | This section of two parallel pipelines that transported radioactive treated and untreated wastewater and runs from D Avenue to the 116-D-7 Retention basin.       | Interim Closed | WSRF 2000-064<br>CVP-2000-00005 | Jul. 1997                  | Aug. 1999                | Aug. 23, 1999 to Oct. 20, 1999 | 57,106  | 6  | Cobalt-60             | 0.154                | 7.58              | 0.0437 <sup>c</sup>  | 1.72 <sup>c</sup>  |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Cesium-137            | 40.6                 | 61.6              | 0.499 <sup>c</sup>   | 7.530 <sup>c</sup> |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Europium-152          | 2.21                 | 24.4              | 0.4 <sup>c</sup>     | 327 <sup>c</sup>   |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Europium-154          | 0.894                | 2.93              | 0.11 <sup>c</sup>    | 1.44 <sup>c</sup>  |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Plutonium-239/240     | 0.046                | 0.63 J            | 0.04 <sup>c</sup>    | 0.103 <sup>c</sup> |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Strontium-90          | 0.42                 | 1.77 J            | 0.21 <sup>c</sup>    | 0.692 <sup>c</sup> |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Uranium-233/234       | 0.748                | 0.854 J           | 0.47 <sup>c</sup>    | 0.49 <sup>c</sup>  |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Uranium-238           | 0.783                | 8.06 J            | 0.45 <sup>c</sup>    | 0.52 <sup>c</sup>  |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Hexavalent Chromium   | 0.42                 | 3.65              | 0.42 <sup>c</sup>    | 1.3 <sup>c</sup>   |  |
| 100-D-48:3 | Radioactive Process Sewer | 100-DR-1      | Varies              | 1944-1967          | This subsite is the last section of the 105-D Reactor effluent pipelines, extending south from D Avenue to about 1.5 meters (5 feet) from the wall                | Interim Closed | WSRF 2001-004<br>CVP-2000-00034 | Oct. 28, 1999              | Jul. 24, 2000            | June 7 to Oct. 4, 2000         | 55,561  | 5.7  | Cobalt-60             | 0.053 U              | 0.059 U           | 0.4                  | 0.05               |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Cesium-137            | 4.31                 | 2.82              | 0.632                | 1                  |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Europium-152          | 0.261                | 0.848             | 0.12                 | 0.604              |  |
|            |                           |               |                     |                    |   |                |                                 |                            |                          |                                |   |  | Europium-154          | 0.180 U              | 0.18 U            | 0.13                 | 0.161              |  |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code  | Site Type                 | Operable Unit | Site Dimensions (m) | Dates of Operation | Site History   | Class Status   | Decision/Closeout Report                    | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date     | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration |                      |                   |                      | 95% UCL           |  |
|------------|---------------------------|---------------|---------------------|--------------------|--|----------------|---|----------------------------|--------------------------|--------------------------------|---|--------------------------------------|-----------------------|----------------------|-------------------|----------------------|-------------------|--|
|            |                           |               |                     |                    |  |                |   |                            |                          |                                |   |                                      | COC                   | (pCi/g, mg/kg)       |                   | (pCi/g, mg/kg)       |                   |  |
|            |                           |               |                     |                    |  |                |   |                            |                          |                                |   |                                      |                       | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |  |
|            |                           |               |                     |                    | of the reactor foundation. The Decontamination and Decommissioning project is responsible for the remaining stub as part of the foundation removal.  |                |   |                            |                          |                                |   |                                      | Plutonium-239/240     | 0.078 J              | 0.697 J           | 0.06                 | 0.126             |  |
|            |                           |               |                     |                    |  |                |   |                            |                          |                                |   |                                      | Strontium-90          | 2.7                  | 4.59              | 0.491                | 0.121             |  |
|            |                           |               |                     |                    |  |                |   |                            |                          |                                |   |                                      | Uranium-233/234       | 0.782 J              | 0.711 J           | 0.52                 | 0.411             |  |
|            |                           |               |                     |                    |  |                |   |                            |                          |                                |   |                                      | Uranium-238           | 0.669 J              | 0.473 J           | 0.51                 | 0.382             |  |
|            |                           |               |                     |                    |  |                |   |                            |                          |                                |   |                                      | Hexavalent Chromium   | 0.94                 | 0.93              | 0.94                 | 0.53              |  |
| 100-D-48:4 | Radioactive Process Sewer | 100-DR-1      | Varies              | 1944-1967          | This subsite includes many small drain pipelines that were used to dispose of radioactive cooling water from the 105-D Reactor Building and terminate at the 132-D-3 (1608-D) Building site. The pipelines that run from the 105-D Reactor and the 132-D-3 (1608-D) Building, to either the 116-D-1A/1B Trenches or connect to the main cooling water effluent pipelines, are also part of this subsite. | Interim Closed | WSRF 2000-133 CVP-2000-00033                | Oct. 28, 1999              | Oct. 18, 2000            | Sept. 11 to Oct. 18, 2000      | 27,738  | 7                                    | Cesium-137            | 1.75                 | /                 | 0.419                | /                 |  |
|            |                           |               |                     |                    |  |                |   |                            |                          |                                |   |                                      | Cobalt-60             | 0.051                | /                 | 0.04                 | /                 |  |
|            |                           |               |                     |                    |  |                |   |                            |                          |                                |   |                                      | Europium-152          | 0.756                | /                 | 0.21                 | /                 |  |
|            |                           |               |                     |                    |  |                |   |                            |                          |                                |   |                                      | Europium-154          | 0.16                 | /                 | 0.12                 | /                 |  |
|            |                           |               |                     |                    |  |                |   |                            |                          |                                |   |                                      | Plutonium-239/240     | 0.028                | /                 | 0.04                 | /                 |  |
|            |                           |               |                     |                    |  |                |   |                            |                          |                                |   |                                      | Strontium-90          | 0.52                 | /                 | 0.257                | /                 |  |
|            |                           |               |                     |                    |  |                |   |                            |                          |                                |   |                                      | Uranium-238           | 0.684                | /                 | 0.54                 | /                 |  |
|            |                           |               |                     |                    |  |                |   |                            |                          |                                |   |                                      | Hexavalent Chromium   | 1.9                  | /                 | 1.9                  | /                 |  |
| 100-D-49:1 | Radioactive Process Sewer | 100-DR-1      | Varies              | 1950-1967          | Subsite consisted of underground pipelines that transported radioactive treated and untreated wastewater from 116-DR-9 to Outfalls.  | Interim Closed | WSRF 2000-127 CVP-2000-00003                | Dec. 28, 1998              | Jul. 24, 2000            | Apr. 3, 2000 to Aug. 8, 2000   | 107,266   | 6                                    | Cobalt-60             | 0.061 U              | 7.33              | 0.05                 | 5.29              |  |
|            |                           |               |                     |                    |  |                |   |                            |                          |                                |   |                                      | Cesium-137            | 0.809                | 39.5              | 0.251                | 28.2              |  |
|            |                           |               |                     |                    |  |                |   |                            |                          |                                |   |                                      | Europium-152          | 0.402                | 64.2              | 0.3                  | 34.2              |  |
|            |                           |               |                     |                    |  |                |   |                            |                          |                                |   |                                      | Europium-154          | 0.15 U               | 8.01              | 0.12                 | 4.25              |  |
|            |                           |               |                     |                    |  |                |   |                            |                          |                                |   |                                      | Plutonium-239/240     | 0.24 U               | 1.31              | 0.13                 | 0.449             |  |
|            |                           |               |                     |                    |  |                |   |                            |                          |                                |   |                                      | Strontium-90          | 0.196 J              | 1.14              | 0.15                 | 0.607             |  |
|            |                           |               |                     |                    |  |                |   |                            |                          |                                |   |                                      | Uranium-233/234       | 0.713 J              | 0.933 J           | 0.5                  | 0.57              |  |
|            |                           |               |                     |                    |  |                |   |                            |                          |                                |   |                                      | Uranium-238           | 0.676 J              | 0.873 J           | 0.42                 | 0.554             |  |
|            |                           |               |                     |                    |  |                |   |                            |                          |                                |   |                                      | Hexavalent Chromium   | 0.64 U               | 5                 | 0.64                 | 5                 |  |
| 100-D-49:2 | Radioactive Process Sewer | 100-DR-1      | Varies              | 1950-1967          | Subsite consisted of underground pipelines that transported radioactive treated and untreated wastewater from D Avenue to 116-DR-9.  | Interim Closed | WSRF 2000-065 CVP-2000-00005                | Jul. 1997                  | Aug. 1999                | Aug. 23, 1999 to Oct. 20, 1999 | 57,106  | 6                                    | Refer to 100-D-48:2   |                      |                   |                      |                   |  |
| 100-D-49:3 | Radioactive Process Sewer | 100-DR-1      | Varies              | 1950-1967          | Subsite consisted of underground pipelines that transported radioactive treated and untreated wastewater from D Avenue to near 105-DR Reactor.   | Interim Closed | WSRF 2001-004 CVP-2000-00034                | Oct. 28, 1999              | Jul. 24, 2000            | June 7 to Oct. 4, 2000         | 55,561  | 5.7                                  | Refer to 100-D-48:3   |                      |                   |                      |                   |  |
| 100-D-49:4 | Radioactive Process Sewer | 100-DR-1      | Varies              | 1950-1967          | This section contains the smaller effluent pipelines near the reactor, and the large main effluent pipelines (two adjacent pipes) extending from the reactor. The eastern main effluent pipe section is about 67 meters long; the western section is about 35 meters long  | Interim Closed | WSRF 2003-049 CVP-2003-00016 (Sections 1-3) | Sept. 1998                 | Sept. 19, 2001           | Jul. 6-12, 2000                | 7,220 m3  | 4.6                                  | Americium-241         | 0.0483               | 0.36              | 0.0152               | 0.018             |  |
|            |                           |               |                     |                    |  |                |   |                            |                          |                                |   |                                      | Barium-133            | 0.062 U              | 0.058 U           | 0.0246               | 0.0247            |  |
|            |                           |               |                     |                    |  |                |   |                            |                          |                                |   |                                      | Carbon-14             | 4.84 U               | 4.5 U             | 3.65                 | 3.83              |  |
|            |                           |               |                     |                    |  |                |   |                            |                          |                                |   |                                      | Cesium-137            | 0.542                | 2.54              | 0.444                | 1.92              |  |
|            |                           |               |                     |                    |  |                |   |                            |                          |                                |   |                                      | Cobalt-60             | 0.72 U               | 0.257             | 0.0373               | 0.177             |  |
|            |                           |               |                     |                    |  |                |   |                            |                          |                                |   |                                      | Europium-152          | 2.16                 | 8.3               | 1.36                 | 5.22              |  |
|            |                           |               |                     |                    |  |                |   |                            |                          |                                |   |                                      | Europium-154          | 0.24 U               | 1.06              | 0.155                | 0.682             |  |
|            |                           |               |                     |                    |  |                |   |                            |                          |                                |   |                                      | Europium-155          | 0.16 U               | 0.17 U            | 0.0804               | 0.0621            |  |
|            |                           |               |                     |                    |  |                |   |                            |                          |                                |   |                                      | Nickel-63             | 6.55 U               | 3.02              | 1.06                 | 1.93              |  |
|            |                           |               |                     |                    |  |                |   |                            |                          |                                |   |                                      | Plutonium-238         | 0.022 U              | 0.02 U            | 0.00545              | 0.00646           |  |
|            |                           |               |                     |                    |  |                |   |                            |                          |                                |   |                                      | Plutonium-239/240     | 0.068                | 0.221             | 0.02715              | 0.1218            |  |
|            |                           |               |                     |                    |  |                |   |                            |                          |                                |   |                                      | Strontium-90          | /                    | 0.527             | 0.218                | 0.396             |  |
|            |                           |               |                     |                    |  |                |   |                            |                          |                                |   |                                      | Technetium-99         | 0.271 U              | 0.026 U           | 0.0802               | 0.000681          |  |
|            |                           |               |                     |                    |  |                |   |                            |                          |                                |   |                                      | Uranium-233/234       | 0.548                | 0.627             | <BGc                 | <BGc              |  |
|            |                           |               |                     |                    |  |                |   |                            |                          |                                |   |                                      | Uranium-235           | 0.064 U              | 0.074             | <BGc                 | <BGc              |  |
|            |                           |               |                     |                    |  |                |   |                            |                          |                                |   |                                      | Uranium-238           | 0.577                | 0.673             | <BGc                 | <BGc              |  |
|            |                           |               |                     |                    |  |                |   |                            |                          |                                |   |                                      | Hexavalent Chromium   | 0.41 U               | 0.44 U            | 0.41                 | 0.44              |  |
|            |                           |               |                     |                    |  |                |   |                            |                          |                                |   |                                      | Mercury               | 0.032                | 0.04              | 0.03                 | 0.04              |  |
|            |                           |               |                     |                    |  |                |   |                            |                          |                                |   |                                      | Lead                  | 9.2                  | 6.7               | 10                   | 5.5               |  |
|            |                           |               |                     |                    |  |                |   |                            |                          |                                |   |                                      | Aroclor-1254          | 0.17                 | 0.036 U           | 0.17                 | 0.04              |  |
| 100-D-5    | Burial Ground             | 100-DR-1      | 3 x 3 x 4.3         | 1950               | Site was a former pipeline junction box that was isolated during the tie-in modifications and used to dispose of debris generated during those modifications. construction/demolition debris was found within the former junction box during remediation.  | Interim Closed | WSRF 2001-022 CVP-2000-00034                | Oct. 28, 1999              | Jul. 24, 2000            | June 7 to Oct. 4, 2000         | 55,561  | 5.7                                  | Refer to 100-D-48:3   |                      |                   |                      |                   |  |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code  | Site Type     | Operable Unit | Site Dimensions (m)  | Dates of Operation | Site History   | Class Status | Decision/Closeout Report | Remedial Action Start Date           | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration   |                      |                   |                      | 95% UCL           |     |
|------------|---------------|---------------|--|--------------------|--|--------------|--------------------------|--------------------------------------|--------------------------|----------------------------|---|--------------------------------------|---|----------------------|-------------------|----------------------|-------------------|-----|
|            |               |               |  |                    |  |              |                          |                                      |                          |                            |   |                                      | COC   | (pCi/g, mg/kg)       |                   | (pCi/g, mg/kg)       |                   |     |
|            |               |               |  |                    |  |              |                          |                                      |                          |                            |   |                                      |   | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |     |
| 100-D-50:1 | Process Sewer | 100-DR-1      | 1,550 linear m   | 1950-1965          | This subsite is a reinforced concrete pipeline to receive emergency discharges from the 105-DR Reactor and drainage from the 183-DR treatment basins and clearwells. The pipeline ultimately discharged to the former outfall at the 100-D-8 Site.   | Accepted     | Not Documented           | N/A                                  | N/A                      | N/A                        | N/A   | N/A                                  | N/A   | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 100-D-50:2 | Process Sewer | 100-DR-1      | Approx. 400 linear m of collocated pipelines   | 1944-1967          | This subsite consists of steel piping used to deliver treated cooling water from the 190-DR Pumphouse to the 105-DR Reactor.   | Accepted     | Not Documented           | N/A                                  | N/A                      | N/A                        | N/A   | N/A                                  | N/A   | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 100-D-50:3 | Process Sewer | 100-DR-1      | Approx. 230 linear m of tunnel containing multiple pipelines   | 1950-1964          | This subsite consists of steel piping designed to deliver treated cooling water from the 190-D High bay to the 105-DR Reactor. These lines were designed and constructed under the assumption that the 105-D Reactor would stop operations; with completion of the 100-DR water treatment train, it is not believed that these lines were ever used operationally.   | Accepted     | Not Documented           | N/A                                  | N/A                      | N/A                        | N/A   | N/A                                  | N/A   | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 100-D-50:4 | Process Sewer | 100-DR-1      | Approx. 135 linear m of tunnel containing multiple pipelines   | 1950-1964          | This subsite consists of steel gas recirculation piping between the 115-D/DR facility and the 105-DR Reactor. The piping was located in tunnels that have since been demolished, but the disposition of the piping was not well-documented.  | Accepted     | Not Documented           | N/A                                  | N/A                      | N/A                        | N/A   | N/A                                  | N/A   | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 100-D-50:5 | Process Sewer | 100-DR-1      | 200 m of pipeline<br><br>Three - 0.15 m drain lines, a .3 m collection line, and a .3 m feeder line. | 1950-1964          | 100-D-50:5 process sewer was located to the south of 183-DR and provided drainage of the 183-DR coagulation and sedimentation basins, and possibly overflow drainage. CrVI was added to cooling water downstream of the coagulation and sedimentation basins. Several surface runoff collection drains also discharged to the subsite.   | No Action    | WSRF/RSVP-2006-025       | Sampling on Nov. 7 and Dec. 28, 2005 | N/A                      | N/A                        | N/A   | <4.6                                 | Cesium-137  | U                    | /                 | /                    | /                 | /   |
|            |               |               |  |                    |  |              |                          |                                      |                          |                            |   |                                      | Antimony  | U                    | /                 | /                    | /                 | /   |
|            |               |               |  |                    |  |              |                          |                                      |                          |                            |   |                                      | Arsenic   | 2.5(<BG)             | /                 | /                    | /                 | /   |
|            |               |               |  |                    |  |              |                          |                                      |                          |                            |   |                                      | Barium  | 69.6(<BG)            | /                 | /                    | /                 | /   |
|            |               |               |  |                    |  |              |                          |                                      |                          |                            |   |                                      | Beryllium   | 0.42(<BG)            | /                 | /                    | /                 | /   |
|            |               |               |  |                    |  |              |                          |                                      |                          |                            |   |                                      | Boron   | 10.9                 | /                 | /                    | /                 | /   |
|            |               |               |  |                    |  |              |                          |                                      |                          |                            |   |                                      | Cadmium   | 0.09(<BG)            | /                 | /                    | /                 | /   |
|            |               |               |  |                    |  |              |                          |                                      |                          |                            |   |                                      | Chromium  | 7.4(<BG)             | /                 | /                    | /                 | /   |
|            |               |               |  |                    |  |              |                          |                                      |                          |                            |   |                                      | Cobalt  | 6.4(<BG)             | /                 | /                    | /                 | /   |
|            |               |               |  |                    |  |              |                          |                                      |                          |                            |   |                                      | Copper  | 14.5(<BG)            | /                 | /                    | /                 | /   |
|            |               |               |  |                    |  |              |                          |                                      |                          |                            |   |                                      | Lead  | 3.5(<BG)             | /                 | /                    | /                 | /   |
|            |               |               |  |                    |  |              |                          |                                      |                          |                            |   |                                      | Mercury   | U                    | /                 | /                    | /                 | /   |
|            |               |               |  |                    |  |              |                          |                                      |                          |                            |   |                                      | Manganese   | 271(<BG)             | /                 | /                    | /                 | /   |
|            |               |               |  |                    |  |              |                          |                                      |                          |                            |   |                                      | Molybdenum  | 0.24                 | /                 | /                    | /                 | /   |
|            |               |               |  |                    |  |              |                          |                                      |                          |                            |   |                                      | Nickel  | 9.2(<BG)             | /                 | /                    | /                 | /   |
|            |               |               |  |                    |  |              |                          |                                      |                          |                            |   |                                      | Selenium  | U                    | /                 | /                    | /                 | /   |
|            |               |               |  |                    |  |              |                          |                                      |                          |                            |   |                                      | Uranium   | 1.54(<BG)            | /                 | /                    | /                 | /   |
|            |               |               |  |                    |  |              |                          |                                      |                          |                            |   |                                      | Vanadium  | 34.9(<BG)            | /                 | /                    | /                 | /   |
|            |               |               |  |                    |  |              |                          |                                      |                          |                            |   |                                      | Zinc  | 32.9(<BG)            | /                 | /                    | /                 | /   |
|            |               |               |  |                    |  |              |                          |                                      |                          |                            |   |                                      | Aroclor-1242  | U                    | /                 | /                    | /                 | /   |
|            |               |               |  |                    |  |              |                          |                                      |                          |                            |   |                                      | Aroclor-1260  | U                    | /                 | /                    | /                 | /   |
|            |               |               |  |                    |  |              |                          |                                      |                          |                            |   |                                      | DDT, 4, 4'  | U                    | /                 | /                    | /                 | /   |
| 100-D-50:6 | Process Sewer | 100-DR-1      | 120 m x 120 m (Clearwell pad area)   | 1950-1964          | This subsite includes the 183-DR clearwell pads and three functional groups of piping at the 183-DR Clearwells: 1) process piping used to deliver water from the filter building to the clearwells, 2) process piping used to deliver water from the clearwells to 190-DR Pumphouse, and 3) drain piping servicing the clearwells and pumphouse floor drains and discharging to the 100-D-50:1 Emergency Discharge Pipeline. | Accepted     | Not Documented           | N/A                                  | N/A                      | N/A                        | N/A   | N/A                                  | CVP-2008-046, Pg. 8 under IN-PROCESS SAMPLING states:<br>"Verification sampling was not conducted at the 126-DR- I Waste Site because it is located entirely above areas planned for remediation (Figure 9). Underlying pipelines are planned for remediation as the 100-D-50:6 waste site. Samples were collected from the 190-DR Clearwell concrete pads and surrounding soils and analyzed for hexavalent chromium (Table 1, Figure 10). The concrete samples were also analyzed by inductively coupled metal analysis. The results show that the surface of the concrete for all four pads is contaminated with hexavalent chromium above direct exposure remedial action goals (RAGs) (Appendix A)."<br><br>Hex Chrom sample taken on 10/22/2007, results:<br>NE Pad - 2.6 mg/kg<br>SE Pad - 2.9 mg/kg<br>SW Pad - 2.3 mg/kg<br>NW Pad - 3.6 mg/kg |                      |                   |                      |                   |     |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code       | Site Type                    | Operable Unit   | Site Dimensions (m)                                  | Dates of Operation                         | Site History  | Class Status   | Decision/Closeout Report  | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration   |                      |                   |                      | 95% UCL             |     |              |                 |                 |                    |                 |                 |          |   |                    |   |             |         |          |                    |          |                |       |           |                  |           |           |       |           |                  |           |       |          |   |      |   |         |           |           |   |           |                 |   |           |   |           |        |   |          |   |          |        |   |           |   |           |  |      |   |      |   |
|-----------------|------------------------------|-----------------|--|--|---|----------------|---|----------------------------|--------------------------|----------------------------|---|--------------------------------------|---|----------------------|-------------------|----------------------|---------------------|-----|--------------|-----------------|-----------------|--------------------|-----------------|-----------------|----------|---|--------------------|---|-------------|---------|----------|--------------------|----------|----------------|-------|-----------|------------------|-----------|-----------|-------|-----------|------------------|-----------|-------|----------|---|------|---|---------|-----------|-----------|---|-----------|-----------------|---|-----------|---|-----------|--------|---|----------|---|----------|--------|---|-----------|---|-----------|--|------|---|------|---|
|                 |                              |                 |  |  |   |                |   |                            |                          |                            |   |                                      | COC   | (pCi/g, mg/kg)       |                   | (pCi/g, mg/kg)       |                     |     |              |                 |                 |                    |                 |                 |          |   |                    |   |             |         |          |                    |          |                |       |           |                  |           |           |       |           |                  |           |       |          |   |      |   |         |           |           |   |           |                 |   |           |   |           |        |   |          |   |          |        |   |           |   |           |  |      |   |      |   |
|                 |                              |                 |  |  |   |                |   |                            |                          |                            |   |                                      |   | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup>   |     |              |                 |                 |                    |                 |                 |          |   |                    |   |             |         |          |                    |          |                |       |           |                  |           |           |       |           |                  |           |       |          |   |      |   |         |           |           |   |           |                 |   |           |   |           |        |   |          |   |          |        |   |           |   |           |  |      |   |      |   |
| 100-D-50:7      | Process Sewer                | 100-DR-1        | Approximately 500 m total pipeline length            | 1950-1964                                  | This subsite includes the pipelines that provided drainage for the 183-DR coagulation basins, floor drains and catch basins at the 183-DR Head House, and mixing tanks in the vicinity of the 186-D Waste Acid Reservoir. These pipelines ultimately discharged to the 100-D Area process sewer systems.  | Accepted       | Not Documented  | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A   | N/A                  | N/A               | N/A                  | N/A                 | N/A |              |                 |                 |                    |                 |                 |          |   |                    |   |             |         |          |                    |          |                |       |           |                  |           |           |       |           |                  |           |       |          |   |      |   |         |           |           |   |           |                 |   |           |   |           |        |   |          |   |          |        |   |           |   |           |  |      |   |      |   |
| 100-D-50:8      | Process Sewer                | 100-DR-1        | 110 linear m   | 1960-1964                                  | This subsite is an asbestos cement pipeline that connected the 117-DR HEPA Filter Building to the 116-DR-8 Seal Pit Crib.   | Accepted       | Not Documented  | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A   | N/A                  | N/A               | N/A                  | N/A                 | N/A |              |                 |                 |                    |                 |                 |          |   |                    |   |             |         |          |                    |          |                |       |           |                  |           |           |       |           |                  |           |       |          |   |      |   |         |           |           |   |           |                 |   |           |   |           |        |   |          |   |          |        |   |           |   |           |  |      |   |      |   |
| 100-D-50:9      | Process Sewer                | 100-DR-1        | 710 linear m   | 1950-1964                                  | The 100-D-50:9 site encompasses two functional pipeline groups: (1) the overflow drain line and (2) the residual sanitary sewer lines. Both pipeline functional groups discharged into the 100-D-13 septic tank.  | Accepted       | Mentioned in CVP-2009-00008 (section 3.1.1)   | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | From CVP-2009-00008 section 3.1.1: "A concrete junction vault located in the southern portion of the burial ground was opened prior to the start of the burial ground excavation and found to contain a breached 15-cm (6-in.) vitrified clay pipe. The pipeline is part of the 1 00-D-50:9, 1607-DR-3 Sanitary Sewer. The concrete junction vault and pipe located within the excavation were removed for disposal to ERDF."   |                      |                   |                      |                     |     |              |                 |                 |                    |                 |                 |          |   |                    |   |             |         |          |                    |          |                |       |           |                  |           |           |       |           |                  |           |       |          |   |      |   |         |           |           |   |           |                 |   |           |   |           |        |   |          |   |          |        |   |           |   |           |  |      |   |      |   |
| 100-D-50:10     | Process Sewer                | 100-DR-1        | 680m of pipe   | Uncertain, but is limited to 1947 to 1949. | This subsite consists of the residual cast iron pipelines used to supply potable water to the temporary construction camp southeast of the 105-DR Reactor. The exact operational period of the subsite is uncertain, but is believed to be limited to 1947 to 1949 when the construction camp was in use. The system was supplied with water via the fire protection loop piping, which in turn was supplied by | No Action      | WSRF/RSVP-2005-016<br><br>Mentioned in CVP 2009-00008 (section 3.1.1)                     | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | "The evaluation shows that there are no hazardous/dangerous materials present at the subsite and, accordingly, no residual contamination in the soil. Therefore, the current status of the subsite is protective of human health, groundwater, and the Columbia River, and no institutional controls are required."<br><br>From CVP-2009-00008 section 3.1.1: "A section of the 1 00-D-50:1 0, Potable Water Supply Lines subsite, running east-west crosses the north end of the burial ground. The section of pipe within the excavation was removed and disposed. Another 15-cm (6-in.) pipe, part of the 1 00-D-50:1 0, Potable Water Supply Lines subsite, was found in the east sidewall of the easternmost excavation. The pipeline remains in place."   |                      |                   |                      |                     |     |              |                 |                 |                    |                 |                 |          |   |                    |   |             |         |          |                    |          |                |       |           |                  |           |           |       |           |                  |           |       |          |   |      |   |         |           |           |   |           |                 |   |           |   |           |        |   |          |   |          |        |   |           |   |           |  |      |   |      |   |
| 100-D-52        | French Drain                 | 100-DR-1        | 1 x 6.71   | constructed in 1955                        | Designed to receive condensate or cooling water leakage from the concrete enclosure for the 105-D Downcomer. Volume and inventory are not documented.   | Interim Closed | WSRF 2000-107<br>CVP-2000-00018   | Jan-00                     | Mar-00                   | Mar. 21, 2000              | 199   | 7.6                                  | <table border="1"> <tr> <td>Cesium-137</td> <td>0.065 J</td> <td>/</td> <td>0.0472<sup>c</sup></td> <td>/</td> </tr> <tr> <td>Europium-152</td> <td>0.099 U</td> <td>/</td> <td>0.181<sup>c</sup></td> <td>/</td> </tr> <tr> <td>Uranium-233/234</td> <td>0.576 J</td> <td>/</td> <td>0.461<sup>c</sup></td> <td>/</td> </tr> <tr> <td>Uranium-238</td> <td>0.588 J</td> <td>/</td> <td>0.451<sup>c</sup></td> <td>/</td> </tr> <tr> <td>Chromium Total</td> <td>7.4 U</td> <td>/</td> <td>5.6<sup>c</sup></td> <td>/</td> </tr> <tr> <td>Lead</td> <td>4.3 U</td> <td>/</td> <td>3.1<sup>c</sup></td> <td>/</td> </tr> </table>  | Cesium-137           | 0.065 J           | /                    | 0.0472 <sup>c</sup> | /   | Europium-152 | 0.099 U         | /               | 0.181 <sup>c</sup> | /               | Uranium-233/234 | 0.576 J  | / | 0.461 <sup>c</sup> | / | Uranium-238 | 0.588 J | /        | 0.451 <sup>c</sup> | /        | Chromium Total | 7.4 U | /         | 5.6 <sup>c</sup> | /         | Lead      | 4.3 U | /         | 3.1 <sup>c</sup> | /         |       |          |   |      |   |         |           |           |   |           |                 |   |           |   |           |        |   |          |   |          |        |   |           |   |           |  |      |   |      |   |
| Cesium-137      | 0.065 J                      | /               | 0.0472 <sup>c</sup>                                  | /  |   |                |   |                            |                          |                            |   |                                      |   |                      |                   |                      |                     |     |              |                 |                 |                    |                 |                 |          |   |                    |   |             |         |          |                    |          |                |       |           |                  |           |           |       |           |                  |           |       |          |   |      |   |         |           |           |   |           |                 |   |           |   |           |        |   |          |   |          |        |   |           |   |           |  |      |   |      |   |
| Europium-152    | 0.099 U                      | /               | 0.181 <sup>c</sup>                                   | /  |   |                |   |                            |                          |                            |   |                                      |   |                      |                   |                      |                     |     |              |                 |                 |                    |                 |                 |          |   |                    |   |             |         |          |                    |          |                |       |           |                  |           |           |       |           |                  |           |       |          |   |      |   |         |           |           |   |           |                 |   |           |   |           |        |   |          |   |          |        |   |           |   |           |  |      |   |      |   |
| Uranium-233/234 | 0.576 J                      | /               | 0.461 <sup>c</sup>                                   | /  |   |                |   |                            |                          |                            |   |                                      |   |                      |                   |                      |                     |     |              |                 |                 |                    |                 |                 |          |   |                    |   |             |         |          |                    |          |                |       |           |                  |           |           |       |           |                  |           |       |          |   |      |   |         |           |           |   |           |                 |   |           |   |           |        |   |          |   |          |        |   |           |   |           |  |      |   |      |   |
| Uranium-238     | 0.588 J                      | /               | 0.451 <sup>c</sup>                                   | /  |   |                |   |                            |                          |                            |   |                                      |   |                      |                   |                      |                     |     |              |                 |                 |                    |                 |                 |          |   |                    |   |             |         |          |                    |          |                |       |           |                  |           |           |       |           |                  |           |       |          |   |      |   |         |           |           |   |           |                 |   |           |   |           |        |   |          |   |          |        |   |           |   |           |  |      |   |      |   |
| Chromium Total  | 7.4 U                        | /               | 5.6 <sup>c</sup>                                     | /  |   |                |   |                            |                          |                            |   |                                      |   |                      |                   |                      |                     |     |              |                 |                 |                    |                 |                 |          |   |                    |   |             |         |          |                    |          |                |       |           |                  |           |           |       |           |                  |           |       |          |   |      |   |         |           |           |   |           |                 |   |           |   |           |        |   |          |   |          |        |   |           |   |           |  |      |   |      |   |
| Lead            | 4.3 U                        | /               | 3.1 <sup>c</sup>                                     | /  |   |                |   |                            |                          |                            |   |                                      |   |                      |                   |                      |                     |     |              |                 |                 |                    |                 |                 |          |   |                    |   |             |         |          |                    |          |                |       |           |                  |           |           |       |           |                  |           |       |          |   |      |   |         |           |           |   |           |                 |   |           |   |           |        |   |          |   |          |        |   |           |   |           |  |      |   |      |   |
| 100-D-53        | Process Unit/Plant           | 100-DR-2        | 20.7 x 11.9 x 10.4 high with 2.4 meters above grade. | 1960-1964                                  | The ventilation exhaust filter building housed blowers and particulate filters used to treat the ventilation exhaust from the 105-DR Reactor.   | Interim Closed | WSRF 2003-053<br>CVP-2003-00018   | Jul. 2003                  | Jul. 2003                | Aug. 8, 2003               | 14,011  | 4.6                                  | Refer to 122-DR-1:2   |                      |                   |                      |                     |     |              |                 |                 |                    |                 |                 |          |   |                    |   |             |         |          |                    |          |                |       |           |                  |           |           |       |           |                  |           |       |          |   |      |   |         |           |           |   |           |                 |   |           |   |           |        |   |          |   |          |        |   |           |   |           |  |      |   |      |   |
| 100-D-54        | French Drain                 | 100-DR-2        | 56 cm x 1.5 m  | 1982-1986                                  | Drywell near sodium fire facility gravel scrubber, consisted of a 56 cm (28in.) drywell constructed of concrete pipe with a steel cover. Approximately 1.5 m (4.9 ft) deep with a 5 cm (2-in.) pipe entering near the bottom. This drywell may have been a replacement for the 100-D-23 drywell.  | Interim Closed | WSRF 2003-053<br>CVP-2003-00018   | Jul. 2003                  | Jul. 2003                | Aug. 8, 2003               | 14,011  | 4.6                                  | Refer to 122-DR-1:2   |                      |                   |                      |                     |     |              |                 |                 |                    |                 |                 |          |   |                    |   |             |         |          |                    |          |                |       |           |                  |           |           |       |           |                  |           |       |          |   |      |   |         |           |           |   |           |                 |   |           |   |           |        |   |          |   |          |        |   |           |   |           |  |      |   |      |   |
| 100-D-55        | Depression/Pit (nonspecific) | 100-DR-2        | 50,069.96 m <sup>2</sup>                             | Not Documented                             | This site is not a waste site. It is a gravel pit used to supply clean fill dirt.   | Not Accepted   | TPA-MP-14<br>WIDS Discovery Site<br>Evaluation checklist<br>approved by the<br>Regulators | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A   | N/A                  | N/A               | N/A                  | N/A                 | N/A |              |                 |                 |                    |                 |                 |          |   |                    |   |             |         |          |                    |          |                |       |           |                  |           |           |       |           |                  |           |       |          |   |      |   |         |           |           |   |           |                 |   |           |   |           |        |   |          |   |          |        |   |           |   |           |  |      |   |      |   |
| 100-D-56:1      | Product Piping               | 100-DR-1        | 272  | 1945-1950                                  | The pipelines exiting the north side of the 185-D Building were used during the initial dry material handling operations. The pipeline ran from 190-D to 108-D  | Interim Closed | WSRF/RSVP-2008-044  | 12/18/2006                 | 01/10/07                 | 03/25/08                   | 1,885 BCM                                       | 2.3                                  | <table border="1"> <tr> <td></td> <td>Excavation</td> <td></td> <td>Overburden</td> <td></td> </tr> <tr> <td></td> <td>Maximum Shallow</td> <td>95% UCL Shallow</td> <td>Maximum Shallow</td> <td>95% UCL Shallow</td> </tr> <tr> <td>Antimony</td> <td>1.1(&lt;BG)</td> <td>/</td> <td>2.5 (&lt;BG)</td> <td>/</td> </tr> <tr> <td>Arsenic</td> <td>/</td> <td>2.5(&lt;BG)</td> <td>/</td> <td>3.5(&lt;BG)</td> </tr> <tr> <td>Barium</td> <td>/</td> <td>59.4(&lt;BG)</td> <td>/</td> <td>70.4(&lt;BG)</td> </tr> <tr> <td>Beryllium</td> <td>/</td> <td>0.50(&lt;BG)</td> <td>/</td> <td>0.57(&lt;BG)</td> </tr> <tr> <td>Boron</td> <td>1.6(&lt;BG)</td> <td>/</td> <td>24.2</td> <td>/</td> </tr> <tr> <td>Cadmium</td> <td>0.26(&lt;BG)</td> <td>0.16(&lt;BG)</td> <td>/</td> <td>0.16(&lt;BG)</td> </tr> <tr> <td>Chromium, total</td> <td>/</td> <td>10.5(&lt;BG)</td> <td>/</td> <td>10.2(&lt;BG)</td> </tr> <tr> <td>Cobalt</td> <td>/</td> <td>7.3(&lt;BG)</td> <td>/</td> <td>8.3(&lt;BG)</td> </tr> <tr> <td>Copper</td> <td>/</td> <td>14.1(&lt;BG)</td> <td>/</td> <td>16.4(&lt;BG)</td> </tr> <tr> <td></td> <td>0.28</td> <td>/</td> <td>0.31</td> <td>/</td> </tr> </table> |                      | Excavation        |                      | Overburden          |     |              | Maximum Shallow | 95% UCL Shallow | Maximum Shallow    | 95% UCL Shallow | Antimony        | 1.1(<BG) | / | 2.5 (<BG)          | / | Arsenic     | /       | 2.5(<BG) | /                  | 3.5(<BG) | Barium         | /     | 59.4(<BG) | /                | 70.4(<BG) | Beryllium | /     | 0.50(<BG) | /                | 0.57(<BG) | Boron | 1.6(<BG) | / | 24.2 | / | Cadmium | 0.26(<BG) | 0.16(<BG) | / | 0.16(<BG) | Chromium, total | / | 10.5(<BG) | / | 10.2(<BG) | Cobalt | / | 7.3(<BG) | / | 8.3(<BG) | Copper | / | 14.1(<BG) | / | 16.4(<BG) |  | 0.28 | / | 0.31 | / |
|                 | Excavation                   |                 | Overburden   |  |   |                |   |                            |                          |                            |   |                                      |   |                      |                   |                      |                     |     |              |                 |                 |                    |                 |                 |          |   |                    |   |             |         |          |                    |          |                |       |           |                  |           |           |       |           |                  |           |       |          |   |      |   |         |           |           |   |           |                 |   |           |   |           |        |   |          |   |          |        |   |           |   |           |  |      |   |      |   |
|                 | Maximum Shallow              | 95% UCL Shallow | Maximum Shallow                                      | 95% UCL Shallow                            |   |                |   |                            |                          |                            |   |                                      |   |                      |                   |                      |                     |     |              |                 |                 |                    |                 |                 |          |   |                    |   |             |         |          |                    |          |                |       |           |                  |           |           |       |           |                  |           |       |          |   |      |   |         |           |           |   |           |                 |   |           |   |           |        |   |          |   |          |        |   |           |   |           |  |      |   |      |   |
| Antimony        | 1.1(<BG)                     | /               | 2.5 (<BG)  | /  |   |                |   |                            |                          |                            |   |                                      |   |                      |                   |                      |                     |     |              |                 |                 |                    |                 |                 |          |   |                    |   |             |         |          |                    |          |                |       |           |                  |           |           |       |           |                  |           |       |          |   |      |   |         |           |           |   |           |                 |   |           |   |           |        |   |          |   |          |        |   |           |   |           |  |      |   |      |   |
| Arsenic         | /                            | 2.5(<BG)        | /  | 3.5(<BG)                                   |   |                |   |                            |                          |                            |   |                                      |   |                      |                   |                      |                     |     |              |                 |                 |                    |                 |                 |          |   |                    |   |             |         |          |                    |          |                |       |           |                  |           |           |       |           |                  |           |       |          |   |      |   |         |           |           |   |           |                 |   |           |   |           |        |   |          |   |          |        |   |           |   |           |  |      |   |      |   |
| Barium          | /                            | 59.4(<BG)       | /  | 70.4(<BG)                                  |   |                |   |                            |                          |                            |   |                                      |   |                      |                   |                      |                     |     |              |                 |                 |                    |                 |                 |          |   |                    |   |             |         |          |                    |          |                |       |           |                  |           |           |       |           |                  |           |       |          |   |      |   |         |           |           |   |           |                 |   |           |   |           |        |   |          |   |          |        |   |           |   |           |  |      |   |      |   |
| Beryllium       | /                            | 0.50(<BG)       | /  | 0.57(<BG)                                  |   |                |   |                            |                          |                            |   |                                      |   |                      |                   |                      |                     |     |              |                 |                 |                    |                 |                 |          |   |                    |   |             |         |          |                    |          |                |       |           |                  |           |           |       |           |                  |           |       |          |   |      |   |         |           |           |   |           |                 |   |           |   |           |        |   |          |   |          |        |   |           |   |           |  |      |   |      |   |
| Boron           | 1.6(<BG)                     | /               | 24.2   | /  |   |                |   |                            |                          |                            |   |                                      |   |                      |                   |                      |                     |     |              |                 |                 |                    |                 |                 |          |   |                    |   |             |         |          |                    |          |                |       |           |                  |           |           |       |           |                  |           |       |          |   |      |   |         |           |           |   |           |                 |   |           |   |           |        |   |          |   |          |        |   |           |   |           |  |      |   |      |   |
| Cadmium         | 0.26(<BG)                    | 0.16(<BG)       | /  | 0.16(<BG)                                  |   |                |   |                            |                          |                            |   |                                      |   |                      |                   |                      |                     |     |              |                 |                 |                    |                 |                 |          |   |                    |   |             |         |          |                    |          |                |       |           |                  |           |           |       |           |                  |           |       |          |   |      |   |         |           |           |   |           |                 |   |           |   |           |        |   |          |   |          |        |   |           |   |           |  |      |   |      |   |
| Chromium, total | /                            | 10.5(<BG)       | /  | 10.2(<BG)                                  |   |                |   |                            |                          |                            |   |                                      |   |                      |                   |                      |                     |     |              |                 |                 |                    |                 |                 |          |   |                    |   |             |         |          |                    |          |                |       |           |                  |           |           |       |           |                  |           |       |          |   |      |   |         |           |           |   |           |                 |   |           |   |           |        |   |          |   |          |        |   |           |   |           |  |      |   |      |   |
| Cobalt          | /                            | 7.3(<BG)        | /  | 8.3(<BG)                                   |   |                |   |                            |                          |                            |   |                                      |   |                      |                   |                      |                     |     |              |                 |                 |                    |                 |                 |          |   |                    |   |             |         |          |                    |          |                |       |           |                  |           |           |       |           |                  |           |       |          |   |      |   |         |           |           |   |           |                 |   |           |   |           |        |   |          |   |          |        |   |           |   |           |  |      |   |      |   |
| Copper          | /                            | 14.1(<BG)       | /  | 16.4(<BG)                                  |   |                |   |                            |                          |                            |   |                                      |   |                      |                   |                      |                     |     |              |                 |                 |                    |                 |                 |          |   |                    |   |             |         |          |                    |          |                |       |           |                  |           |           |       |           |                  |           |       |          |   |      |   |         |           |           |   |           |                 |   |           |   |           |        |   |          |   |          |        |   |           |   |           |  |      |   |      |   |
|                 | 0.28                         | /               | 0.31   | /  |   |                |   |                            |                          |                            |   |                                      |   |                      |                   |                      |                     |     |              |                 |                 |                    |                 |                 |          |   |                    |   |             |         |          |                    |          |                |       |           |                  |           |           |       |           |                  |           |       |          |   |      |   |         |           |           |   |           |                 |   |           |   |           |        |   |          |   |          |        |   |           |   |           |  |      |   |      |   |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code  | Site Type      | Operable Unit | Site Dimensions (m) | Dates of Operation | Site History  | Class Status   | Decision/Closeout Report  | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration |                      |                   |                      | 95% UCL           |       |
|------------|----------------|---------------|---------------------|--------------------|---|----------------|---|----------------------------|--------------------------|----------------------------|---|--------------------------------------|-----------------------|----------------------|-------------------|----------------------|-------------------|-------|
|            |                |               |                     |                    |   |                |   |                            |                          |                            |   |                                      | COC                   | (pCi/g, mg/kg)       |                   | (pCi/g, mg/kg)       |                   |       |
|            |                |               |                     |                    |   |                |   |                            |                          |                            |   |                                      |                       | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |       |
|            |                |               |                     |                    |   |                |   |                            |                          |                            |   |                                      | Lead                  | /                    | 4.2(<BG)          | /                    | 10.2(<BG)         |       |
|            |                |               |                     |                    |   |                |   |                            |                          |                            |   |                                      | Manganese             | /                    | 289(<BG)          | /                    | 327(<BG)          |       |
|            |                |               |                     |                    |   |                |   |                            |                          |                            |   |                                      | Mercury               | 0.02(<BG)            | /                 | 0.33                 | /                 |       |
|            |                |               |                     |                    |   |                |   |                            |                          |                            |   |                                      | Molybdenum            | /                    | /                 | /                    | 0.95(<BG)         |       |
|            |                |               |                     |                    |   |                |   |                            |                          |                            |   |                                      | Nickel                | /                    | 10.8(<BG)         | /                    | 11.1(<BG)         |       |
|            |                |               |                     |                    |   |                |   |                            |                          |                            |   |                                      | Selenium              | 1.5                  | /                 | 2.1                  | 70.4(<BG)         |       |
|            |                |               |                     |                    |   |                |   |                            |                          |                            |   |                                      | Vanadium              | /                    | 49.3(<BG)         | /                    | 58.9(<BG)         |       |
|            |                |               |                     |                    |   |                |   |                            |                          |                            |   |                                      | Zinc                  | /                    | 51.3(<BG)         | /                    | 65.8(<BG)         |       |
|            |                |               |                     |                    |   |                |   |                            |                          |                            |   |                                      | Chloride              | 8.5 (<BG)            | /                 | 8.5 (<BG)            | /                 |       |
|            |                |               |                     |                    |   |                |   |                            |                          |                            |   |                                      | Fluoride              | 3.3 (<BG)            | /                 | 3.3 (<BG)            | /                 |       |
|            |                |               |                     |                    |   |                |   |                            |                          |                            |   |                                      | Nitrate (as Nitrogen) | 6.6                  | /                 | 16.2                 | /                 |       |
|            |                |               |                     |                    |   |                |   |                            |                          |                            |   |                                      | Nitrite (as Nitrogen) | /                    | /                 | 1.2                  | /                 |       |
|            |                |               |                     |                    |   |                |   |                            |                          |                            |   |                                      | Sulfate               | 19.3(<BG)            | 95.5 (<BG)        | /                    | 95.5 (<BG)        |       |
| 100-D-56:2 | Product Piping | 100-DR-1      | 788                 | 1959-1967          | The pipelines exited the south side of the 185-D Building to 100-D-12 and continued to the 183-DR building. This pipeline continued to be used after the transition to concentrated liquid sodium dichromate.   | Interim Closed | WSRF 2009-016   | Jun-06                     | Feb-07                   | Jun-11                     | Not documented                                  | 0.3 m below the pipe.                |                       |                      |                   |                      |                   |       |
|            |                |               |                     |                    |   |                |   |                            |                          |                            |   |                                      |                       | Excavation           |                   | Overburden           |                   |       |
|            |                |               |                     |                    |   |                |   |                            |                          |                            |   |                                      |                       | Maximum              | 95% UCL           | Maximum              | 95% UCL           |       |
|            |                |               |                     |                    |   |                |   |                            |                          |                            |   |                                      |                       | Antimony             | 0.42              | /                    | 0.5               | /     |
|            |                |               |                     |                    |   |                |   |                            |                          |                            |   |                                      |                       | Arsenic              | /                 | 3.9                  | /                 | 3.4   |
|            |                |               |                     |                    |   |                |   |                            |                          |                            |   |                                      |                       | Barium               | 70.5              | 67                   | /                 | 72    |
|            |                |               |                     |                    |   |                |   |                            |                          |                            |   |                                      |                       | Beryllium            | /                 | 1.1                  | /                 | 1.1   |
|            |                |               |                     |                    |   |                |   |                            |                          |                            |   |                                      |                       | Boron                | 3.3               | /                    | /                 | 1.1   |
|            |                |               |                     |                    |   |                |   |                            |                          |                            |   |                                      |                       | Cadmium              | 0.14              | 0.084                | /                 | 0.097 |
|            |                |               |                     |                    |   |                |   |                            |                          |                            |   |                                      |                       | Chromium (total)     | 29.3              | 12                   | /                 | 17    |
|            |                |               |                     |                    |   |                |   |                            |                          |                            |   |                                      |                       | Cobalt               | 8.3               | 8.2                  | /                 | 7.6   |
|            |                |               |                     |                    |   |                |   |                            |                          |                            |   |                                      |                       | Copper               | /                 | 15                   | /                 | 16    |
|            |                |               |                     |                    |   |                |   |                            |                          |                            |   |                                      |                       | Hexavalent chromium  | 0.662             | /                    | 0.55              | /     |
|            |                |               |                     |                    |   |                |   |                            |                          |                            |   |                                      |                       | Lead                 | /                 | 5.5                  | /                 | 4.4   |
|            |                |               |                     |                    |   |                |   |                            |                          |                            |   |                                      |                       | Manganese            | 300               | 322                  | /                 | 311   |
|            |                |               |                     |                    |   |                |   |                            |                          |                            |   |                                      |                       | Mercury              | /                 | 0.01                 | 0.063             | /     |
|            |                |               |                     |                    |   |                |   |                            |                          |                            |   |                                      |                       | Molybdenum           | 0.3               | /                    | /                 | /     |
|            |                |               |                     |                    |   |                |   |                            |                          |                            |   |                                      |                       | Nickel               | /                 | 11                   | /                 | 11    |
|            |                |               |                     |                    |   |                |   |                            |                          |                            |   |                                      |                       | Vanadium             | /                 | 66                   | /                 | 57    |
|            |                |               |                     |                    |   |                |   |                            |                          |                            |   |                                      |                       | Zinc                 | /                 | 46                   | /                 | 55    |
|            |                |               |                     |                    |   |                |   |                            |                          |                            |   |                                      |                       | Chloride             | 13                | 9.2                  | /                 | 5.8   |
|            |                |               |                     |                    |   |                |   |                            |                          |                            |   |                                      |                       | Fluoride             | 2.3               | 1.9                  | 1.9               | 1.9   |
|            |                |               |                     |                    |   |                |   |                            |                          |                            |   |                                      |                       | Nitrate as Nitrogen  | /                 | 2.1                  | /                 | 1.2   |
|            |                |               |                     |                    |   |                |   |                            |                          |                            |   |                                      |                       | Nitrite as Nitrogen  | /                 | 0.44                 | /                 | 0.58  |
|            |                |               |                     |                    |   |                |   |                            |                          |                            |   |                                      |                       | Sulfate              | 81                | /                    | 3.3               | /     |
| 100-D-57   | Crib           | 100-DR-1      | N/A                 | 1955               | Through examination of Ground Penetrating Radar results, other documents, and excavation of the 116-DR-9, 100-D-4, and 100-D-49 sites, which effectively removed soil and subsurface structures in this area, it has been determined that 100-D-57 was a duplicate entry for the 100-D-4 site. Therefore, this site was not accepted as | Not Accepted   | TPA-MP-14 WIDS Discovery Site Evaluation checklist approved by the Regulators | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A                   | N/A                  | N/A               | N/A                  | N/A               |       |
| 100-D-58   | Septic Tank    | 100-DR-2      | 27.8 x 33 x 1.6     | 1998-present       | Site includes a septic tank, drain field, two-compartment tank, and associated risers supporting MO980.   | Accepted       | Not Documented  | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A                   | N/A                  | N/A               | N/A                  | N/A               |       |
| 100-D-59   | French Drain   | 100-DR-1      | 0.45 (dia.) x 0.25  | Not Documented     | This french drain received overflow sulfuric acid from railroad car transfer operations. Any waste acid was assumed to be neutralized in the Hanford Site's alkaline soil. Therefore, the site is rejected as a waste site.   | Rejected       | WSRF 2002-042   | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A                   | N/A                  | N/A               | N/A                  | N/A               |       |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code    | Site Type                 | Operable Unit | Site Dimensions (m)    | Dates of Operation | Site History  | Class Status   | Decision/Closeout Report        | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration |                      |                   |                      | 95% UCL           |     |
|--------------|---------------------------|---------------|------------------------|--------------------|---|----------------|---------------------------------|----------------------------|--------------------------|----------------------------|---|--------------------------------------|-----------------------|----------------------|-------------------|----------------------|-------------------|-----|
|              |                           |               |                        |                    |   |                |                                 |                            |                          |                            |   |                                      | COC                   | (pCi/g, mg/kg)       |                   | (pCi/g, mg/kg)       |                   |     |
|              |                           |               |                        |                    |   |                |                                 |                            |                          |                            |   |                                      |                       | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |     |
| 100-D-6      | Burial Ground             | 100-DR-1      | 42 x 17                | 1944-1967          | This site received contaminated thimbles and other solid reactor materials (including non-radioactive solid waste and construction debris) related to the ball 3X installation project. | Interim Closed | WSRF 2001-005<br>CVP-2000-00034 | Oct. 28, 1999              | Jul. 24, 2000            | June 7 to Oct. 4, 2000     | 55,561  | 5.7                                  | Refer to 100-D-48:3   |                      |                   |                      |                   |     |
| 100-D-60     | Radioactive Process Sewer | 100-DR-1      | 2,294.7 m <sup>2</sup> | 1944-1967          | This site includes the river effluent pipelines (river lines) that extend from the two outfalls in the 100-D/DR area into the main channel of the Columbia River.                       | Accepted       | Not Documented                  | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A                   | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 100-D-61     | Dumping Area              | 100-DR-1      | 30 (dia.)              | Not Documented     | Site was a debris pile that includes treated wood, lead-tipped bolts, and miscellaneous other debris from tearing down electrical utility poles.  | Interim Closed | WSRF/RSVP-2008-047              | Phase 1 - Nov. 12, 2007    | Phase 1 - Jan. 24, 2008  | Jun. 18, 2008              | Phase 1 = 100 BCM                               | Phase 1 = 0.3                        | Arsenic               | 3.5                  | /                 | 3.2                  | /                 |     |
|              |                           |               |                        |                    |   |                |                                 |                            |                          |                            |   |                                      | Barium                | 204                  | /                 | 162                  | /                 |     |
|              |                           |               |                        |                    |   |                |                                 |                            |                          |                            |   |                                      | Beryllium             | 0.55                 | /                 | 0.51                 | /                 |     |
|              |                           |               |                        |                    |   |                |                                 |                            |                          |                            |   |                                      | Boron                 | 16.5                 | /                 | 11.7                 | /                 |     |
|              |                           |               |                        |                    |   |                |                                 |                            |                          |                            |   |                                      | Chromium              | 11.3                 | /                 | 10.9                 | /                 |     |
|              |                           |               |                        |                    |   |                |                                 |                            |                          |                            |   |                                      | Hexavalent Chromium   | 2.1                  | /                 | /                    | /                 |     |
|              |                           |               |                        |                    |   |                |                                 |                            |                          |                            |   |                                      | Cobalt                | 9.4                  | /                 | 8.1                  | /                 |     |
|              |                           |               |                        |                    |   |                |                                 |                            |                          |                            |   |                                      | Copper                | 21.7                 | /                 | 18.2                 | /                 |     |
|              |                           |               |                        |                    |   |                |                                 |                            |                          |                            |   |                                      | Lead                  | 5                    | /                 | 4.8                  | /                 |     |
|              |                           |               |                        |                    |   |                |                                 |                            |                          |                            |   |                                      | Manganese             | 380                  | /                 | 358                  | /                 |     |
|              |                           |               |                        |                    |   |                |                                 |                            |                          |                            |   |                                      | Mercury               | 0.05                 | /                 | /                    | /                 |     |
|              |                           |               |                        |                    |   |                |                                 |                            |                          |                            |   |                                      | Molybdenum            | 0.84                 | /                 | /                    | /                 |     |
|              |                           |               |                        |                    |   |                |                                 |                            |                          |                            |   |                                      | Nickel                | 12.6                 | /                 | 11.6                 | /                 |     |
|              |                           |               |                        |                    |   |                |                                 |                            |                          |                            |   |                                      | Selenium              | 0.98 C               | /                 | /                    | /                 |     |
|              |                           |               |                        |                    |   |                |                                 |                            |                          |                            |   |                                      | Vanadium              | 56.3                 | /                 | 51.5                 | /                 |     |
|              |                           |               |                        |                    |   |                |                                 | Zinc                       | 47                       | /                          | 45.2  | /                                    |                       |                      |                   |                      |                   |     |
|              |                           |               |                        |                    |   |                |                                 | Motor Oil Range Organics   | 18                       | /                          | 12  | /                                    |                       |                      |                   |                      |                   |     |
|              |                           |               |                        |                    |   |                |                                 | Aroclor-1254               | 0.0081                   | /                          | /   | /                                    |                       |                      |                   |                      |                   |     |
|              |                           |               |                        |                    |   |                |                                 | Aroclor-1260               | 0.015                    | /                          | /   | /                                    |                       |                      |                   |                      |                   |     |
|              |                           |               |                        |                    |   |                |                                 | benzo(a)anthracene         | 0.016                    | /                          | /   | /                                    |                       |                      |                   |                      |                   |     |
|              |                           |               |                        |                    |   |                |                                 | benzo(a)pyrene             | 0.013                    | /                          | 0.0059  | /                                    |                       |                      |                   |                      |                   |     |
|              |                           |               |                        |                    |   |                |                                 | benzo(b)fluoranthene       | 0.016                    | /                          | 0.0077  | /                                    |                       |                      |                   |                      |                   |     |
|              |                           |               |                        |                    |   |                |                                 | benzo(ghi)perylene         | 0.008                    | /                          | /   | /                                    |                       |                      |                   |                      |                   |     |
|              |                           |               |                        |                    |   |                |                                 | benzo(k)fluoranthene       | 0.0092                   | /                          | 0.0054  | /                                    |                       |                      |                   |                      |                   |     |
|              |                           |               |                        |                    |   |                |                                 | Chrysene                   | 0.027                    | /                          | /   | /                                    |                       |                      |                   |                      |                   |     |
|              |                           |               |                        |                    |   |                |                                 | Dibenz[a,h]anthracene      | 0.015                    | /                          | /   | /                                    |                       |                      |                   |                      |                   |     |
|              |                           |               |                        |                    |   |                |                                 | Endrin Aldehyde            | 0.004                    | /                          | /   | /                                    |                       |                      |                   |                      |                   |     |
| Fluoranthene | 0.096                     | /             | 0.0417                 | /                  |   |                |                                 |                            |                          |                            |   |                                      |                       |                      |                   |                      |                   |     |
| Fluorene     | 0.0026                    | /             | /                      | /                  |   |                |                                 |                            |                          |                            |   |                                      |                       |                      |                   |                      |                   |     |
| Phenanthrene | 0.0081                    | /             | 0.0046                 | /                  |   |                |                                 |                            |                          |                            |   |                                      |                       |                      |                   |                      |                   |     |
| Pyrene       | 0.043                     | /             | /                      | /                  |   |                |                                 |                            |                          |                            |   |                                      |                       |                      |                   |                      |                   |     |
|              |                           |               |                        |                    |   |                |                                 | Phase 2 - Oct. 13, 2008    | Phase 2 - ?              | Jan. 21, 2009              | Phase 2 = 50 BCM                                | Phase 2 = 1                          | Antimony              | 0.54 B               | /                 | /                    | /                 |     |
|              |                           |               |                        |                    |   |                |                                 |                            |                          |                            |   |                                      | Arsenic               | 4.5 M                | /                 | 3                    | /                 |     |
|              |                           |               |                        |                    |   |                |                                 |                            |                          |                            |   |                                      | Barium                | 380                  | /                 | 164                  | /                 |     |
|              |                           |               |                        |                    |   |                |                                 |                            |                          |                            |   |                                      | Beryllium             | 1.2                  | /                 | 1                    | /                 |     |
|              |                           |               |                        |                    |   |                |                                 |                            |                          |                            |   |                                      | Boron                 | 31                   | /                 | 11                   | /                 |     |
|              |                           |               |                        |                    |   |                |                                 |                            |                          |                            |   |                                      | Chromium              | 11                   | /                 | 8.4                  | /                 |     |
|              |                           |               |                        |                    |   |                |                                 |                            |                          |                            |   |                                      | Hexavalent Chromium   | 0.169                | /                 | /                    | /                 |     |
|              |                           |               |                        |                    |   |                |                                 |                            |                          |                            |   |                                      | Cobalt                | 11                   | /                 | 10                   | /                 |     |
|              |                           |               |                        |                    |   |                |                                 |                            |                          |                            |   |                                      | Copper                | 22                   | /                 | 18                   | /                 |     |
|              |                           |               |                        |                    |   |                |                                 |                            |                          |                            |   |                                      | Lead                  | 6.5                  | /                 | 4.4                  | /                 |     |
|              |                           |               |                        |                    |   |                |                                 |                            |                          |                            |   |                                      | Manganese             | 380                  | /                 | 344                  | /                 |     |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code | Site Type      | Operable Unit | Site Dimensions<br>(m)   | Dates of<br>Operation                        | Site History  | Class Status   | Decision/<br>Closeout Report    | Remedial<br>Action Start<br>Date | Remedial<br>Action End<br>Date | Verification<br>Sampling Date | Contaminated<br>Waste Volume to<br>ERDF (metric<br>tons) | Maximum<br>Depth of<br>Remedial<br>Action (m) | Maximum Concentration |                      |                   |                      | 95% UCL           |     |
|-----------|----------------|---------------|--|--|---|----------------|---------------------------------|----------------------------------|--------------------------------|-------------------------------|--|---|-----------------------|----------------------|-------------------|----------------------|-------------------|-----|
|           |                |               |  |  |   |                |                                 |                                  |                                |                               |  |   | COC                   | (pCi/g, mg/kg)       |                   | (pCi/g, mg/kg)       |                   |     |
|           |                |               |  |  |   |                |                                 |                                  |                                |                               |  |   |                       | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |     |
|           |                |               |  |  |   |                |                                 |                                  |                                |                               |  |   | Mercury               | 0.016 B              | /                 | /                    | /                 |     |
|           |                |               |  |  |   |                |                                 |                                  |                                |                               |  |   | Molybdenum            | .70 BC               | /                 | 0.56                 | /                 |     |
|           |                |               |  |  |   |                |                                 |                                  |                                |                               |  |   | Nickel                | 24 L                 | /                 | 13                   | /                 |     |
|           |                |               |  |  |   |                |                                 |                                  |                                |                               |  |   | Vanadium              | 75                   | /                 | 71                   | /                 |     |
|           |                |               |  |  |   |                |                                 |                                  |                                |                               |  |   | Zinc                  | 50 L                 | /                 | 47                   | /                 |     |
|           |                |               |  |  |   |                |                                 |                                  |                                |                               |  |   | Anthracene            | 0.0052               | /                 | /                    | /                 |     |
|           |                |               |  |  |   |                |                                 |                                  |                                |                               |  |   | benzo(a)anthracene    | 0.0068               | /                 | /                    | /                 |     |
|           |                |               |  |  |   |                |                                 |                                  |                                |                               |  |   | benzo(b)fluoranthene  | 0.011                | /                 | /                    | /                 |     |
|           |                |               |  |  |   |                |                                 |                                  |                                |                               |  |   | benzo(k)fluoranthene  | 0.0093               | /                 | /                    | /                 |     |
|           |                |               |  |  |   |                |                                 |                                  |                                |                               |  |   | Chrysene              | 0.016                | /                 | /                    | /                 |     |
| 100-D-62  | Septic Tank    | 100-DR-2      | 2.1 x 1.2 x 1.8<br>(septic tank)<br>8.2 x 4.3<br>(drain field) | 1952-1964                                    | Site serviced the 183-DR building and includes a septic tank with a capacity of 2,271 L (600 gal), a drain field, and related piping.   | Accepted       | Not Documented                  | N/A                              | N/A                            | N/A                           | N/A  | N/A   | N/A                   | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 100-D-63  | Product Piping | 100-DR-1      | Not Documented   | 1945-present                                 | The site encompasses the clean water pipelines upstream of the 100-D and 100-DR Reactors, including underground pipelines used to transport raw, fire, export, and sanitary water from the river pumphouse, to the water treatment facilities and to 100-D facilities and fire hydrants. Site does not include pipelines that carried water treated with hexavalent chromium. Site also includes pipelines associated with the Plenum Filling Experiment (PFE). The PFE project, a light-water reactor test facility, was cancelled prior to construction. The design of the PFE-related facilities included an above-ground oil pipeline and a process sewer extension. These pipelines are shown on design drawings but were never built. They are included with the 100-D-63 service water pipelines site in order to document that they were never constructed and require no action. | Accepted       | Not Documented                  | N/A                              | N/A                            | N/A                           | N/A  | N/A   | N/A                   | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 100-D-64  | Laboratory     | 100-DR-2      | 33.4 m <sup>2</sup>  | 1960-1964 and 1972-1986 (for LSFF operation) | Air sample building for the 116-DR stack exhaust. This prefabricated metal structure housed most of the instrumentation for the Large Sodium Fire Facility Exhaust Air System. Monitoring of the exhaust air was conducted in this building.  | Interim Closed | WSRF 2003-053<br>CVP-2003-00018 | Jul. 2003                        | Jul. 2003                      | Aug. 8, 2003                  | 14,011   | 4.6   | Refer to 122-DR-1:2   |                      |                   |                      |                   |     |
| 100-D-65  | Outfall        | 100-DR-1      | 6.4 (width) x 1.5<br>(depth)                                   | 1944 - 1975<br>(per 116-D-5)                 | The site is the concrete spillway (also referred to as a flume) that led from the 116-D-5 Outfall Structure and terminated at the river shoreline. The spillway was an alternate discharge point for the 1904-D Outfall Structure. It was planned to be used only if the 100-D-60 river effluent pipelines were blocked, damaged, or undergoing maintenance. There is no corroborated physical or historical evidence that the spillway was ever used.  | Accepted       | Not Documented                  | N/A                              | N/A                            | N/A                           | N/A  | N/A   | N/A                   | N/A                  | N/A               | N/A                  | N/A               | N/A |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code | Site Type          | Operable Unit | Site Dimensions (m)       | Dates of Operation         | Site History   | Class Status   | Decision/Closeout Report | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration  |                      |                   |                      | 95% UCL           |     |     |  |
|-----------|--------------------|---------------|---------------------------|----------------------------|--|----------------|--------------------------|----------------------------|--------------------------|----------------------------|---|--------------------------------------|--|----------------------|-------------------|----------------------|-------------------|-----|-----|--|
|           |                    |               |                           |                            |  |                |                          |                            |                          |                            |   |                                      | COC  | (pCi/g, mg/kg)       |                   | (pCi/g, mg/kg)       |                   |     |     |  |
|           |                    |               |                           |                            |  |                |                          |                            |                          |                            |   |                                      |  | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |     |     |  |
| 100-D-66  | Outfall            | 100-DR-1      | 3.7 (width) x 1.5 (depth) | 1944 - 1975 (per 116-DR-5) | The spillway was an alternate discharge point for the 116-DR-5 Outfall Structure. It was planned to be used only if the 100-D-60 river effluent pipelines were blocked, damaged, or undergoing maintenance. There is no corroborated physical or historical evidence that the spillway was ever used.  | Accepted       | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A  | N/A                  | N/A               | N/A                  | N/A               | N/A | N/A |  |
| 100-D-67  | Unplanned Release  | 100-DR-1      | 213 x 268                 | 1944-1967                  | D Island is a small island located near the southeast shore of the Columbia River and opposite the 100-D Reactor operating area. Historically, D Island has been submerged by high river flow. The site consists of soil contamination spread from vent risers that extended from the buried river effluent pipelines (100-D-60). The island is contaminated with particles of Co-60.  | Accepted       | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A  | N/A                  | N/A               | N/A                  | N/A               | N/A | N/A |  |
| 100-D-68  | Process Unit/Plant | 100-DR-2      | 128.02 x 36.6             | 1950                       | The Process Water Pumphouse provided high-volume treated water to the 105-DR Reactor for cooling. The facility contained eight electric primary water pumps that pumped treated water from the clearwell tanks to the reactor. before demolition, all friable asbestos was removed, including all asbestos-containing material and all potential asbestos-containing material from ventilation fan housings, pipes, and loose materials that had fallen to the ground. The above grade portion of the facility was demolished and the below grade portion of the facility was demolished to 1 m (3 ft) below grade. The remainder of the concrete facility was left in place. The two valve houses were also demolished. The water tunnels were left in place and are currently being used as bat habitat. | No Action      | WSRF 2005-034 BHI-01771  | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | The residual contaminant levels were well below the cleanup standards for the direct exposure and none of the contaminants are predicted to migrate to groundwater within 1,000 years. |                      |                   |                      |                   |     |     |  |
| 100-D-69  | Unplanned Release  | 100-DR-1      | 156.1 m <sup>2</sup>      | Not Documented             | This site consists of sodium dichromate contaminated concrete on a foundation. The soil is also potentially contaminated. The source of contamination is unknown.  | Accepted       | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A  | N/A                  | N/A               | N/A                  | N/A               | N/A | N/A |  |
| 100-D-7   | Dumping Area       | 100-DR-1      | 215 x 80, 20 x 11         | Not Documented             | Solid waste dumping area containing hazardous and nonhazardous waste including vitrified clay pipe, concrete cores, metal paint cans, wood debris, batteries, glass, brick, and mastics.   | Interim Closed | WSRF 20011-2005          | Dec. 19, 2009              | 6-Mar-10                 | 20-Sep-10                  | 24,120 BCM                                      | 4                                    | Cesium-137   | /                    | /                 | 0.0295               | /                 |     |     |  |
|           |                    |               |                           |                            |  |                |                          |                            |                          |                            |   |                                      | Arsenic  | /                    | /                 | 2.1                  | /                 |     |     |  |
|           |                    |               |                           |                            |  |                |                          |                            |                          |                            |   |                                      | Barium   | /                    | /                 | 82.3                 | /                 |     |     |  |
|           |                    |               |                           |                            |  |                |                          |                            |                          |                            |   |                                      | Beryllium  | /                    | /                 | 0.2                  | /                 |     |     |  |
|           |                    |               |                           |                            |  |                |                          |                            |                          |                            |   |                                      | Boron  | 1.9                  | /                 | 1.6                  | /                 |     |     |  |
|           |                    |               |                           |                            |  |                |                          |                            |                          |                            |   |                                      | Cadmium  | /                    | /                 | 0.12                 | /                 |     |     |  |
|           |                    |               |                           |                            |  |                |                          |                            |                          |                            |   |                                      | Chromium   | /                    | /                 | 9.2                  | /                 |     |     |  |
|           |                    |               |                           |                            |  |                |                          |                            |                          |                            |   |                                      | Cobalt   | /                    | /                 | 8                    | /                 |     |     |  |
|           |                    |               |                           |                            |  |                |                          |                            |                          |                            |   |                                      | Copper   | /                    | /                 | 16                   | /                 |     |     |  |
|           |                    |               |                           |                            |  |                |                          |                            |                          |                            |   |                                      | Hexavalent chromium  | 0.33                 | /                 | 0.254                | /                 |     |     |  |
|           |                    |               |                           |                            |  |                |                          |                            |                          |                            |   |                                      | Lead   | /                    | /                 | 5.8                  | /                 |     |     |  |
|           |                    |               |                           |                            |  |                |                          |                            |                          |                            |   |                                      | Manganese  | /                    | /                 | 344                  | /                 |     |     |  |
|           |                    |               |                           |                            |  |                |                          |                            |                          |                            |   |                                      | Mercury  | /                    | /                 | 0.42                 | /                 |     |     |  |
|           |                    |               |                           |                            |  |                |                          |                            |                          |                            |   |                                      | Molybdenum   | 0.39                 | /                 | /                    | /                 |     |     |  |
|           |                    |               |                           |                            |  |                |                          |                            |                          |                            |   |                                      | Nickel   | /                    | /                 | 9.9                  | /                 |     |     |  |
|           |                    |               |                           |                            |  |                |                          |                            |                          |                            |   |                                      | Selenium   | 0.87                 | /                 | /                    | /                 |     |     |  |
|           |                    |               |                           |                            |  |                |                          |                            |                          |                            |   |                                      | Silver   | 0.71                 | /                 | /                    | /                 |     |     |  |
|           |                    |               |                           |                            |  |                |                          |                            |                          |                            |   |                                      | Vanadium   | /                    | /                 | 71.3                 | /                 |     |     |  |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code | Site Type          | Operable Unit | Site Dimensions (m) | Dates of Operation | Site History   | Class Status | Decision/Closeout Report | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration      |                      |                   |                      | 95% UCL           |     |
|-----------|--------------------|---------------|---------------------|--------------------|--|--------------|--------------------------|----------------------------|--------------------------|----------------------------|---|--------------------------------------|----------------------------|----------------------|-------------------|----------------------|-------------------|-----|
|           |                    |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | COC                        | (pCi/g, mg/kg)       |                   | (pCi/g, mg/kg)       |                   |     |
|           |                    |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      |                            | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |     |
|           |                    |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Zinc                       | /                    | /                 | 46.1                 | /                 | /   |
|           |                    |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | 2-butanone                 | 0.0018               | /                 | /                    | /                 | /   |
|           |                    |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | 4,4"DDE                    | /                    | /                 | 0.56                 | /                 | /   |
|           |                    |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | 4-4"DDT                    | 0.0026               | /                 | /                    | /                 | /   |
|           |                    |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Acetone                    | /                    | /                 | 0.0016               | /                 | /   |
|           |                    |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Alpha-BHC                  | 0.0022               | /                 | /                    | /                 | /   |
|           |                    |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Aroclor-1248               | 0.1                  | /                 | /                    | /                 | /   |
|           |                    |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Aroclor-1254               | 0.0014               | /                 | /                    | /                 | /   |
|           |                    |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Aroclor-1260               | 0.11                 | /                 | /                    | /                 | /   |
|           |                    |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Benzo(b)fluoranthene       | 0.003                | /                 | /                    | /                 | /   |
|           |                    |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Benzo(ghi)perylene         | 0.0028               | /                 | /                    | /                 | /   |
|           |                    |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Bis(2-ethylhexyl)phthalate | 1.1                  | /                 | /                    | /                 | /   |
|           |                    |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Dibenz[a,h]anthracene      | 0.13                 | /                 | /                    | /                 | /   |
|           |                    |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Diethyl phthalate          | 1.2                  | /                 | /                    | /                 | /   |
|           |                    |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Dimethyl phthalate         | 0.21                 | /                 | /                    | /                 | /   |
|           |                    |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Endosulfan II              | 0.00052              | /                 | /                    | /                 | /   |
|           |                    |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Gamma BHC (Lindane)        | 0.00085              | /                 | /                    | /                 | /   |
|           |                    |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Indeno(1,2,3-cd)pyrene     | 0.0029               | /                 | /                    | /                 | /   |
|           |                    |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Methylene chloride         | 0.0022               | /                 | /                    | /                 | /   |
|           |                    |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Toluene                    | 0.00091              | /                 | /                    | /                 | /   |
|           |                    |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | TPH-diesel range- EXT      | 6.7                  | /                 | /                    | /                 | /   |
|           |                    |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Xylenes (total)            | 0.0011               | /                 | /                    | /                 | /   |
| 100-D-70  | French Drain       | 100-DR-1      | 1.22 (dia.)         | 1968               | Site consists of a drywell located on the south side of the former 184-DA Building. It received steam separator discharge from equipment within the former 184-DA Building (demolished).   | No Action    | WSRF-2010-081            | NA                         | NA                       | NA                         | N/A   | N/A                                  | Arsenic                    | 1.8                  | /                 | /                    | /                 | /   |
|           |                    |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Barium                     | 99                   | /                 | /                    | /                 | /   |
|           |                    |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Beryllium                  | 0.25                 | /                 | /                    | /                 | /   |
|           |                    |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Cadmium                    | 0.13                 | /                 | /                    | /                 | /   |
|           |                    |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Chromium (total)           | 11.8                 | /                 | /                    | /                 | /   |
|           |                    |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Cobalt                     | 8.5                  | /                 | /                    | /                 | /   |
|           |                    |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Copper                     | 73.9                 | /                 | /                    | /                 | /   |
|           |                    |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Lead                       | 7.3                  | /                 | /                    | /                 | /   |
|           |                    |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Manganese                  | 340                  | /                 | /                    | /                 | /   |
|           |                    |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Molybdenum                 | 0.39                 | /                 | /                    | /                 | /   |
|           |                    |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Nickel                     | 14                   | /                 | /                    | /                 | /   |
|           |                    |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Vanadium                   | 61.1                 | /                 | /                    | /                 | /   |
|           |                    |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Zinc                       | 78.8                 | /                 | /                    | /                 | /   |
|           |                    |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Chloride                   | 4.5                  | /                 | /                    | /                 | /   |
|           |                    |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Nitrate as Nitrogen        | 2.2                  | /                 | /                    | /                 | /   |
|           |                    |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Sulfate                    | 46.4                 | /                 | /                    | /                 | /   |
|           |                    |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | TPH - diesel range         | 2                    | /                 | /                    | /                 | /   |
|           |                    |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | TPH - diesel range EXT     | 4.4                  | /                 | /                    | /                 | /   |
| 100-D-71  | Laboratory         | 100-DR-1      | 5.5 x 5.5 x 38.1    | 1957-1984          | Site consists of subsurface components of the 195-D Vertical Safety Rod Tower (tower was demolished in 1995). It is unknown if the related components remain in the ground. The site had a 1.2 m- (4-ft-) diameter by 2.2 m- (7-ft-) deep concrete drywell, a below grade pit approximately 30.5 cm (12 in.) square, and a 7.6 cm- (3-in.-) diameter underground cast iron pipe. | Accepted     | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A                        | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 100-D-72  | Process Unit/Plant | 100-DR-1      | 39 x 0.76           | 1944-1994          | The waste site consists of multiple components on the south side of the 183-D Head House. All activities associated with the waste site are related to the unloading, storage, and use of acid to support water treatment in the 183-D Head House.   | Accepted     | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A                        | N/A                  | N/A               | N/A                  | N/A               | N/A |

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| Site Code            | Site Type             | Operable Unit | Site Dimensions (m)  | Dates of Operation | Site History  | Class Status | Decision/Closeout Report | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration |                        |                   |                      | 95% UCL           |     |
|----------------------|-----------------------|---------------|--|--------------------|---|--------------|--------------------------|----------------------------|--------------------------|----------------------------|---|--------------------------------------|-----------------------|------------------------|-------------------|----------------------|-------------------|-----|
|                      |                       |               |  |                    |   |              |                          |                            |                          |                            |   |                                      | COC                   | (pCi/g, mg/kg)         |                   | (pCi/g, mg/kg)       |                   |     |
|                      |                       |               |  |                    |   |              |                          |                            |                          |                            |   |                                      |                       | Shallow <sup>a</sup>   | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |     |
| 100-D-73             | Process Unit/Plant    | 100-DR-1      | 47 x 10<br>(Main Facility)<br>11 x 10 (extension)<br>4 x 4 (below grade Elevator Shaft)<br>2 dp x 1.8 dia.<br>(Acid Mixing Tank) | constructed 1943   | Soil and possibly the demolition debris under the former 108-D Building. This building was used to store and mix sodium dichromate.   | Accepted     | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A                   | N/A                    | N/A               | N/A                  | N/A               | N/A |
| 100-D-74             | French Drain          | 100-DR-1      | 0.3 m <sup>2</sup>   | Constructed 1949   | A French drain located on the north side of 105-DR Reactor footprint. The dry well was connected to a flash tank located inside the 105-DR Reactor wall by a small-diameter drain line. | No Action    | WSRF-2010-083            | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A                   | Arsenic                | 1.5               | /                    | /                 | /   |
|                      |                       |               |  |                    |   |              |                          |                            |                          |                            |   |                                      |                       | Barium                 | 54.3              | /                    | /                 | /   |
|                      |                       |               |  |                    |   |              |                          |                            |                          |                            |   |                                      |                       | Beryllium              | 0.12              | /                    | /                 | /   |
|                      |                       |               |  |                    |   |              |                          |                            |                          |                            |   |                                      |                       | Chromium (total)       | 6.4               | /                    | /                 | /   |
|                      |                       |               |  |                    |   |              |                          |                            |                          |                            |   |                                      |                       | Cobalt                 | 8.3               | /                    | /                 | /   |
|                      |                       |               |  |                    |   |              |                          |                            |                          |                            |   |                                      |                       | Copper                 | 13.4              | /                    | /                 | /   |
|                      |                       |               |  |                    |   |              |                          |                            |                          |                            |   |                                      |                       | Lead                   | 2.3               | /                    | /                 | /   |
|                      |                       |               |  |                    |   |              |                          |                            |                          |                            |   |                                      |                       | Manganese              | 278               | /                    | /                 | /   |
|                      |                       |               |  |                    |   |              |                          |                            |                          |                            |   |                                      |                       | Mercury                | 0.017             | /                    | /                 | /   |
|                      |                       |               |  |                    |   |              |                          |                            |                          |                            |   |                                      |                       | Molybdenum             | 0.32              | /                    | /                 | /   |
|                      |                       |               |  |                    |   |              |                          |                            |                          |                            |   |                                      |                       | Nickel                 | 9.5               | /                    | /                 | /   |
|                      |                       |               |  |                    |   |              |                          |                            |                          |                            |   |                                      |                       | Vanadium               | 57.6              | /                    | /                 | /   |
|                      |                       |               |  |                    |   |              |                          |                            |                          |                            |   |                                      |                       | Zinc                   | 40.9              | /                    | /                 | /   |
|                      |                       |               |  |                    |   |              |                          |                            |                          |                            |   |                                      |                       | Anthracene             | 0.01              | /                    | /                 | /   |
|                      |                       |               |  |                    |   |              |                          |                            |                          |                            |   |                                      |                       | Benzo(a)pyrene         | 0.011             | /                    | /                 | /   |
|                      |                       |               |  |                    |   |              |                          |                            |                          |                            |   |                                      |                       | Benzo(b)fluoranthene   | 0.011             | /                    | /                 | /   |
| Benzo(k)fluoranthene | 0.0089                | /             | /  | /                  |   |              |                          |                            |                          |                            |   |                                      |                       |                        |                   |                      |                   |     |
| Chrysene             | 0.016                 | /             | /  | /                  |   |              |                          |                            |                          |                            |   |                                      |                       |                        |                   |                      |                   |     |
| Phenanthrene         | 0.023                 | /             | /  | /                  |   |              |                          |                            |                          |                            |   |                                      |                       |                        |                   |                      |                   |     |
| Pyrene               | 0.04                  | /             | /  | /                  |   |              |                          |                            |                          |                            |   |                                      |                       |                        |                   |                      |                   |     |
| 100-D-75:1           | Electrical Substation | 100-DR-1      | 137.6 x 91.25<br>8.6 x 13.6  | 1944-present       | Site is the 151-D Primary Electrical Substations.   | Accepted     | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A                   | N/A                    | N/A               | N/A                  | N/A               | N/A |
| 100-D-75:2           | Electrical Substation | 100-DR-1      | 137.6 x 91.25<br>8.6 x 13.6  | 1944-?             | Site is the 152-E1-D Secondary Electrical Substations.  | Accepted     | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A                   | N/A                    | N/A               | N/A                  | N/A               | N/A |
| 100-D-75:3           | Electrical Substation | 100-DR-1      | 9 m x 14   | 1944-?             | Site is the 152-C1-D Secondary Electrical Substations.  | No Action    | WSRF 2011-036            | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A                   | Arsenic                | 2                 | /                    | /                 | /   |
|                      |                       |               |  |                    |   |              |                          |                            |                          |                            |   |                                      |                       | Barium                 | 60.5              | /                    | /                 | /   |
|                      |                       |               |  |                    |   |              |                          |                            |                          |                            |   |                                      |                       | Cadmium                | 0.076             | /                    | /                 | /   |
|                      |                       |               |  |                    |   |              |                          |                            |                          |                            |   |                                      |                       | Chromium (total)       | 5.9               | /                    | /                 | /   |
|                      |                       |               |  |                    |   |              |                          |                            |                          |                            |   |                                      |                       | Cobalt                 | 8.7               | /                    | /                 | /   |
|                      |                       |               |  |                    |   |              |                          |                            |                          |                            |   |                                      |                       | Copper                 | 18                | /                    | /                 | /   |
|                      |                       |               |  |                    |   |              |                          |                            |                          |                            |   |                                      |                       | Lead                   | 5                 | /                    | /                 | /   |
|                      |                       |               |  |                    |   |              |                          |                            |                          |                            |   |                                      |                       | Manganese              | 297               | /                    | /                 | /   |
|                      |                       |               |  |                    |   |              |                          |                            |                          |                            |   |                                      |                       | Mercury                | 0.017             | /                    | /                 | /   |
|                      |                       |               |  |                    |   |              |                          |                            |                          |                            |   |                                      |                       | Molybdenum             | 0.35              | /                    | /                 | /   |
|                      |                       |               |  |                    |   |              |                          |                            |                          |                            |   |                                      |                       | Nickel                 | 11.1              | /                    | /                 | /   |
|                      |                       |               |  |                    |   |              |                          |                            |                          |                            |   |                                      |                       | Vanadium               | 52.7              | /                    | /                 | /   |
|                      |                       |               |  |                    |   |              |                          |                            |                          |                            |   |                                      |                       | Zinc                   | 39.6              | /                    | /                 | /   |
|                      |                       |               |  |                    |   |              |                          |                            |                          |                            |   |                                      |                       | TPH - diesel range EXT | 2400              | /                    | /                 | /   |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code  | Site Type          | Operable Unit | Site Dimensions<br>(m)   | Dates of<br>Operation | Site History   | Class Status | Decision/<br>Closeout Report  | Remedial<br>Action Start<br>Date | Remedial<br>Action End<br>Date | Verification<br>Sampling Date           | Contaminated<br>Waste Volume to<br>ERDF (metric<br>tons) | Maximum<br>Depth of<br>Remedial<br>Action (m) | Maximum Concentration |                      |                   |                      | 95% UCL           |     |  |  |
|------------|--------------------|---------------|--|-----------------------|--|--------------|-------------------------------|----------------------------------|--------------------------------|---|--|---|-----------------------|----------------------|-------------------|----------------------|-------------------|-----|--|--|
|            |                    |               |  |                       |  |              |                               |                                  |                                |   |  |   | COC                   | (pCi/g, mg/kg)       |                   | (pCi/g, mg/kg)       |                   |     |  |  |
|            |                    |               |  |                       |  |              |                               |                                  |                                |   |  |   |                       | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |     |  |  |
| 100-D-76   | Crib               | 100-DR-1      | Estimated to range from 1 m in dia. and 1.5 m deep to 2.4 x 2.4, to 5 m deep.  | 1951-1967             | The waste site is either a French drain or crib, formerly known as 116-D-3. Historical documentation, a construction drawing, and ground-penetrating radar results indicate Waste Site 116-D-3 probably remains near the southeast corner of the 108-D Building. This site may have received 0.08 Ci of Cs-134 and 30,000 L (7,925 gal) of effluent.   | Accepted     | Not Documented                | N/A                              | N/A                            | N/A                                     | N/A  | N/A   | N/A                   | N/A                  | N/A               | N/A                  | N/A               | N/A |  |  |
| 100-D-77   | Process Unit/Plant | 100-DR-2      | 40.9 x 10.6 (Acid facility)<br>34 x 24 (Head House)<br>112.5 x 58.5 x 6 (basins)<br>171 x 15 (Filter Plant)<br>9.3 x 8.3 (Sample Room) | 1952-1964             | The waste site consists of the 183-DR Acid Facility, 183-DR Head House, the six 183-DR Flocculation basins, the six 183-DR Sedimentation basins, and the 183-DR Filter Building, all of which were components of the cooling water treatment system that supported the 105-DR Reactor. These components are of interest because they stored, mixed, or processed liquid contaminants of concern, especially sodium dichromate and sulfuric acid. | Accepted     | Not Documented                | N/A                              | N/A                            | N/A                                     | N/A  | N/A   | N/A                   | N/A                  | N/A               | N/A                  | N/A               | N/A |  |  |
| 100-D-78   | Dumping Area       | 100-DR-2      | 66 x 4 x 1.2<br>65 x 9 x 1.2<br>1 x 1<br>2 x 2   | Not Documented        | Site consists of four areas of yellow stained soils between the 183D and 186-D Buildings. The staining is in the vicinity of the acid trench and waste acid reservoir.   | Accepted     | Not Documented                | N/A                              | N/A                            | N/A                                     | N/A  | N/A   | N/A                   | N/A                  | N/A               | N/A                  | N/A               | N/A |  |  |
| 100-D-79   | Dumping Area       | 100-DR-1      | 88 x 21.6<br>151.7 x 39.5  | Not Documented        | This site consists of two areas of posted soil contamination areas within 100-D  | Rejected     | WSRF 2009-052 plus attachment | N/A                              | N/A                            | N/A                                     | N/A  | N/A   | N/A                   | N/A                  | N/A               | N/A                  | N/A               | N/A |  |  |
| 100-D-8    | Outfall            | 100-DR-1      | 728.4 m <sup>2</sup>   | 1949-1968             | Constructed in 1949 as a spillway for an emergency discharge for the DR Reactor, consisted of a 1.8 m- (72in.-) diameter reinforced-concrete pipe. The pipe discharged into a concrete box flume that spilled onto a grouted riprap surface and extended about 13.1 m (43 ft) beyond the low water level of the  | Accepted     | Not Documented                | N/A                              | N/A                            | N/A                                     | N/A  | N/A   | N/A                   | N/A                  | N/A               | N/A                  | N/A               | N/A |  |  |
| 100-D-80:1 | Dumping Area       | 100-DR-1      | Area 1:<br>0.6096 x 6.4 (dia.)<br>Area 2 & 3:<br>1 x 1 & 1 x 2   | Not Documented        | This subsite consists of three areas. Area 1 was identified on April 10, 2006 as a single broken light bulb. Area 2 contained a tar-like material with a fiber matrix and was identified on April 11, 2006. Area 3 is classified as a tar-and oil-stained area and was identified on April 11, 2006.   | No Action    | WSRF-2010-079                 | N/A                              | N/A                            | N/A                                     | N/A  | N/A   | N/A                   | N/A                  | N/A               | N/A                  | N/A               | N/A |  |  |
| 100-D-80:2 | Dumping Area       | 100-DR-1      | 1 x 1  | Not Documented        | This subsite consists of Area 4, which contained a small wooden structure containing piping. This structure is believed to be a valve box cover, possibly to prevent freezing pipes during the winter months. A raw water pipeline was known to have existed in  | Accepted     | Not Documented                | N/A                              | N/A                            | N/A                                     | N/A  | N/A   | N/A                   | N/A                  | N/A               | N/A                  | N/A               | N/A |  |  |
| 100-D-81   | Dumping Area       | 100-DR-1      | 8.6 x 9.9<br>11.3 x 20.5<br>5.8 x 9.3<br>10.5 x 41<br>11 x 16<br>2.4 x 2.5<br>2.4 x 2.5  | Not Documented        | This site consists of eight areas that contain burned areas, stained soil, scattered concrete, oil staining, and quartz sand.  | Accepted     | Not Documented                | N/A                              | N/A                            | N/A                                     | N/A  | N/A   | N/A                   | N/A                  | N/A               | N/A                  | N/A               | N/A |  |  |
| 100-D-82   | Dumping Area       | 100-DR-1      | 29.5 x 31.5<br>31.9 x 21.3<br>3.9 x 3.9  | Not Documented        | The site consists of three areas of garnet sand.   | No Action    | WSRF/RSVP-2010-076            | N/A                              | N/A                            | confirmatory sampling done in Aug. 2010 | N/A  | N/A   | Arsenic               | 1.9                  | /                 | /                    | /                 | /   |  |  |
|            |                    |               |  |                       |  |              |                               |                                  |                                |   |  |   | Barium                | 27.8                 | /                 | /                    | /                 | /   |  |  |
|            |                    |               |  |                       |  |              |                               |                                  |                                |   |  |   | Beryllium             | 0.092                | /                 | /                    | /                 | /   |  |  |
|            |                    |               |  |                       |  |              |                               |                                  |                                |   |  |   | Cadmium               | 0.049                | /                 | /                    | /                 | /   |  |  |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code  | Site Type      | Operable Unit | Site Dimensions (m) | Dates of Operation | Site History   | Class Status | Decision/Closeout Report | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration           |                      |                   |                      | 95% UCL           |     |
|------------|----------------|---------------|---------------------|--------------------|--|--------------|--------------------------|----------------------------|--------------------------|----------------------------|---|--------------------------------------|---------------------------------|----------------------|-------------------|----------------------|-------------------|-----|
|            |                |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | COC                             | (pCi/g, mg/kg)       |                   | (pCi/g, mg/kg)       |                   |     |
|            |                |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      |                                 | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |     |
|            |                |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Chromium Total                  | 8.3                  | /                 | /                    | /                 | /   |
|            |                |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Cobalt                          | 5.4                  | /                 | /                    | /                 | /   |
|            |                |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Copper                          | 8.7                  | /                 | /                    | /                 | /   |
|            |                |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Lead                            | 134                  | /                 | /                    | /                 | /   |
|            |                |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Manganese                       | 164                  | /                 | /                    | /                 | /   |
|            |                |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Molybdenum                      | 0.29                 | /                 | /                    | /                 | /   |
|            |                |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Nickel                          | 6.9                  | /                 | /                    | /                 | /   |
|            |                |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Vanadium                        | 17.8                 | /                 | /                    | /                 | /   |
|            |                |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Zinc                            | 37.5                 | /                 | /                    | /                 | /   |
|            |                |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Aroclor-1260                    | 0.0035               | /                 | /                    | /                 | /   |
| 100-D-83:1 | Product Piping | 100-DR-1      | Not Documented      | 1952-1964          | This subsite consists of the pipeline segments associated with the 100-D-77 (183-DR Acid Facility) and includes low pressure steam, sulfuric acid, and lime slurry. The majority of the pipeline segments were contained in the acid pipe trench.  | Accepted     | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A                             | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 100-D-83:2 | Product Piping | 100-DR-1      | Not Documented      | 1950-1964          | This subsite consists of the 183-DR water reducing valve pit and three pipeline segments.  | Accepted     | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A                             | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 100-D-83:3 | Product Piping | 100-DR-1      | Not Documented      | Not Documented     | This subsite consists of the pipeline segments associated with the 108-D Acid Addition Facility (100-D-101) and includes the sulfuric acid pipeline and a process sewer.   | Accepted     | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A                             | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 100-D-83:4 | Product Piping | 100-DR-1      | Not Documented      | Not Documented     | This subsite consists of the treated water pipeline segments that were not addressed by 100-D-83:1, 100-D-83:2 and 100-D-83:3. They include piping associated with the 186-D Acid Neutralizing System, sulfuric acid and sodium silicate supply lines to the 190-D building, reused water return lines at the 190-D building and an elevated storage tank drain line south of the 105-DR Reactor Building. | No Action    | WSRF-2010-093            | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A                             | Antimony             | 0.55              | /                    | /                 | /   |
|            |                |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Arsenic                         | 4.8                  | /                 | /                    | /                 | /   |
|            |                |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Barium                          | 62.4                 | /                 | /                    | /                 | /   |
|            |                |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Beryllium                       | 0.12                 | /                 | /                    | /                 | /   |
|            |                |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Cadmium                         | 0.052                | /                 | /                    | /                 | /   |
|            |                |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Chromium (total)                | 7.8                  | /                 | /                    | /                 | /   |
|            |                |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Cobalt                          | 8.2                  | /                 | /                    | /                 | /   |
|            |                |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Copper                          | 18.4                 | /                 | /                    | /                 | /   |
|            |                |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Cr-VI                           | 0.174                | /                 | /                    | /                 | /   |
|            |                |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Lead                            | 8.6                  | /                 | /                    | /                 | /   |
|            |                |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Manganese                       | 284                  | /                 | /                    | /                 | /   |
|            |                |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Mercury                         | 0.95                 | /                 | /                    | /                 | /   |
|            |                |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Molybdenum                      | 0.44                 | /                 | /                    | /                 | /   |
|            |                |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Nickel                          | 10.9                 | /                 | /                    | /                 | /   |
|            |                |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Vanadium                        | 76.1                 | /                 | /                    | /                 | /   |
|            |                |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Zinc                            | 49.1                 | /                 | /                    | /                 | /   |
|            |                |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Chloride                        | 5                    | /                 | /                    | /                 | /   |
|            |                |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Fluoride                        | 1                    | /                 | /                    | /                 | /   |
|            |                |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Nitrate as Nitrogen             | 1.6                  | /                 | /                    | /                 | /   |
|            |                |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Nitrate and Nitrite as Nitrogen | 2.5                  | /                 | /                    | /                 | /   |
|            |                |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      | Sulfate                         | 17.2                 | /                 | /                    | /                 | /   |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code  | Site Type                 | Operable Unit | Site Dimensions (m)   | Dates of Operation                         | Site History   | Class Status | Decision/Closeout Report | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration |                            |                   |                      | 95% UCL           |     |
|------------|---------------------------|---------------|---|--|--|--------------|--------------------------|----------------------------|--------------------------|----------------------------|---|--------------------------------------|-----------------------|----------------------------|-------------------|----------------------|-------------------|-----|
|            |                           |               |   |  |  |              |                          |                            |                          |                            |   |                                      | COC                   | (pCi/g, mg/kg)             |                   | (pCi/g, mg/kg)       |                   |     |
|            |                           |               |   |  |  |              |                          |                            |                          |                            |   |                                      |                       | Shallow <sup>a</sup>       | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |     |
| 100-D-83:5 | Product Piping            | 100-DR-1      | Not Documented  | Not Documented                             | This subsite consists of the treated water pipeline segments that were associated with the 186-D Acid Neutralization System and the reactor cooling water piping between the 190-D building and the 105-D Reactor.   | Accepted     | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A                   | N/A                        | N/A               | N/A                  | N/A               | N/A |
| 100-D-84:1 | Sanitary Sewer            | 100-DR-1      | Not Documented  | Not Documented                             | This subsite consists of piping from two areas. Area 1 includes 15 pipeline segments south of the 105-DR Reactor Building. They were the result of temporary construction in 1947 to modify the 100-D Area buildings. Area 2 includes one pipeline segment and two manholes northwest of the 105-D Reactor Building. They carried waste from various buildings to the sanitary sewer main. | No Action    | WSRF 2010-102            | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A                   |                            | /                 | /                    | /                 |     |
|            |                           |               |   |  |  |              |                          |                            |                          |                            |   |                                      |                       | Arsenic                    | 2.5               |                      |                   |     |
|            |                           |               |   |  |  |              |                          |                            |                          |                            |   |                                      |                       | Barium                     | 74.7              | /                    | /                 | /   |
|            |                           |               |   |  |  |              |                          |                            |                          |                            |   |                                      |                       | Beryllium                  | 0.3               | /                    | /                 | /   |
|            |                           |               |   |  |  |              |                          |                            |                          |                            |   |                                      |                       | Boron                      | 1.5               | /                    | /                 | /   |
|            |                           |               |   |  |  |              |                          |                            |                          |                            |   |                                      |                       | Cadmium                    | 0.058             | /                    | /                 | /   |
|            |                           |               |   |  |  |              |                          |                            |                          |                            |   |                                      |                       | Chromium (total)           | 11.9              | /                    | /                 | /   |
|            |                           |               |   |  |  |              |                          |                            |                          |                            |   |                                      |                       | Cobalt                     | 11.8              | /                    | /                 | /   |
|            |                           |               |   |  |  |              |                          |                            |                          |                            |   |                                      |                       | Copper                     | 15.2              | /                    | /                 | /   |
|            |                           |               |   |  |  |              |                          |                            |                          |                            |   |                                      |                       | Lead                       | 31.3              | /                    | /                 | /   |
|            |                           |               |   |  |  |              |                          |                            |                          |                            |   |                                      |                       | Manganese                  | 343               | /                    | /                 | /   |
|            |                           |               |   |  |  |              |                          |                            |                          |                            |   |                                      |                       | Mercury                    | 0.13              | /                    | /                 | /   |
|            |                           |               |   |  |  |              |                          |                            |                          |                            |   |                                      |                       | Molybdenum                 | 0.39              | /                    | /                 | /   |
|            |                           |               |   |  |  |              |                          |                            |                          |                            |   |                                      |                       | Nickel                     | 11.8              | /                    | /                 | /   |
|            |                           |               |   |  |  |              |                          |                            |                          |                            |   |                                      |                       | Vanadium                   | 94.4              | /                    | /                 | /   |
|            |                           |               |   |  |  |              |                          |                            |                          |                            |   |                                      |                       | Zinc                       | 52.5              | /                    | /                 | /   |
|            |                           |               |   |  |  |              |                          |                            |                          |                            |   |                                      |                       | Chloride                   | 8.5               | /                    | /                 | /   |
|            |                           |               |   |  |  |              |                          |                            |                          |                            |   |                                      |                       | Fluoride                   | 1.1               | /                    | /                 | /   |
|            |                           |               |   |  |  |              |                          |                            |                          |                            |   |                                      |                       | Nitrate and Nitrite as Nit | 12.8              | /                    | /                 | /   |
|            |                           |               |   |  |  |              |                          |                            |                          |                            |   |                                      |                       | Sulfate                    | 16.4              | /                    | /                 | /   |
|            |                           |               |   |  |  |              |                          |                            |                          |                            |   |                                      |                       | Diethyl phthalate          | 72                | /                    | /                 | /   |
|            |                           |               |   |  |  |              |                          |                            |                          |                            |   |                                      |                       | Anthracene                 | 33                | /                    | /                 | /   |
|            |                           |               |   |  |  |              |                          |                            |                          |                            |   |                                      |                       | Benzo(a)anthracene         | 69                | /                    | /                 | /   |
|            |                           |               |   |  |  |              |                          |                            |                          |                            |   |                                      |                       | Benzo(a)pyrene             | 57                | /                    | /                 | /   |
|            |                           |               |   |  |  |              |                          |                            |                          |                            |   |                                      |                       | Benzo(b)fluoranthene       | 78                | /                    | /                 | /   |
|            |                           |               |   |  |  |              |                          |                            |                          |                            |   |                                      |                       | Benzo(ghi)perylene         | 19                | /                    | /                 | /   |
|            |                           |               |   |  |  |              |                          |                            |                          |                            |   |                                      |                       | Benzo(k)fluoranthene       | 25                | /                    | /                 | /   |
|            |                           |               |   |  |  |              |                          |                            |                          |                            |   |                                      |                       | Chrysene                   | 85                | /                    | /                 | /   |
|            |                           |               |   |  |  |              |                          |                            |                          |                            |   |                                      |                       | Indeno(1,2,3-cd)pyrene     | 67                | /                    | /                 | /   |
|            |                           |               |   |  |  |              |                          |                            |                          |                            |   |                                      |                       | Phenanthrene               | 64                | /                    | /                 | /   |
|            |                           |               |   |  |  |              |                          |                            |                          |                            |   |                                      |                       | Pyrene                     | 130               | /                    | /                 | /   |
|            |                           |               |   |  |  |              |                          |                            |                          |                            |   |                                      |                       | Aroclor-1260               | 7                 | /                    | /                 | /   |
| 100-D-84:2 | Sanitary Sewer            | 100-DR-1      | Area 3 pipeline: 87.56 m long and 20.32 cm in diam.<br><br>Area 4 pipeline: 40.13 m long and is 15.24 cm in diam. | Not Documented                             | This subsite consists of piping from two areas. Area 3 includes one pipeline segment that carried waste from the 1607-D2 septic tank to the drain field. Area 4 includes one pipeline segment that carried waste from the 181-D River Pump House to the 1607-D5 Septic Tank..  | Accepted     | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A                   | N/A                        | N/A               | N/A                  | N/A               | N/A |
| 100-D-85:1 | Radioactive Process Sewer | 100-DR-1      | Not Documented  | 1950-1964 (105-DR Reactor Operation Dates) | This subsite consists of one pipeline segment that connected the influent lines (100-D-48:2 and 100-D-49:2) between the 107-D and 107-DR Retention basins. The effluent pipelines were used to transport radioactive cooling and waste water from the reactor facility to the  | No Action    | WSRF-2010-080            | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A                   | N/A                        | N/A               | N/A                  | N/A               | N/A |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code  | Site Type                 | Operable Unit | Site Dimensions (m) | Dates of Operation                         | Site History   | Class Status | Decision/Closeout Report | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date                 | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration |                   |                      |                   |     |
|------------|---------------------------|---------------|---------------------|--|--|--------------|--------------------------|----------------------------|--------------------------|--|---|--------------------------------------|-----------------------|-------------------|----------------------|-------------------|-----|
|            |                           |               |                     |  |  |              |                          |                            |                          |  |   |                                      | (pCi/g, mg/kg)        |                   | 95% UCL              |                   |     |
|            |                           |               |                     |  |  |              |                          |                            |                          |  |   |                                      | Shallow <sup>a</sup>  | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |     |
| 100-D-85:2 | Radioactive Process Sewer | 100-DR-1      | Not Documented      | 1950-1964 (105-DR Reactor Operation Dates) | This subsite consists of sixteen reactor effluent pipe segments. The pipelines carried process water and steam condensate collected the 105-DR Reactor building then discharged to the 1608-DR Waste Water Pumping House (132-DR-1) where it was pumped to the main effluent pipeline (100-D-49:3). Many of the 100-D-85:2   | Accepted     | Not Documented           | N/A                        | N/A                      | N/A  | N/A   | N/A                                  | N/A                   | N/A               | N/A                  | N/A               | N/A |
| 100-D-86:1 | Process Sewer             | 100-DR-1      | Not Documented      | 1944-1967 (105-D Reactor Operation Dates)  | This subsite consists of the steel gas recirculation piping in the subsurface tunnel between the former 115-D Gas Recirculation Facility and the 105-D Reactor. Features of the subsite include a pipeline, pipe tunnel, and vacuum and pressure seal pit. The 115-D/DR Gas Recirculation Facility and adjoining tunnels were decommissioned by UNC Nuclear Industries in 1985 and 1986. | Accepted     | Not Documented           | N/A                        | N/A                      | N/A  | N/A   | N/A                                  | N/A                   | N/A               | N/A                  | N/A               | N/A |
| 100-D-86:2 | Process Sewer             | 100-DR-1      | Not Documented      | 1944-1967 (105-D Reactor Operation Dates)  | This subsite consists of 30 process sewer pipelines associated with the 105-D, 105-DR and 190-DR buildings. Process drainage piping was provided throughout the 105-D Building to carry water from floor drains, steam traps, sumps and trenches to the process sewer.   | No Action    | WSRF 2010-104            | N/A                        | N/A                      | N/A  | N/A   | N/A                                  | N/A                   | N/A               | N/A                  | N/A               | N/A |
| 100-D-86:3 | Process Sewer             | 100-DR-1      | Not Documented      | 1950-1964 (105-DR Reactor Operation Dates) | The subsite consists of process sewer pipelines that received waste from the 105-DR Fan Room floor drains and condensate.  | Accepted     | Not Documented           | N/A                        | N/A                      | N/A  | N/A   | N/A                                  | N/A                   | N/A               | N/A                  | N/A               | N/A |
| 100-D-87   | Dumping Area              | 100-DR-1      | 57 x 5              | 1945                                       | The waste site is a surface liquid spill near the acid railroad car spot. A liquid discharge occurred in 1945 at the railroad car spot. The liquid is believed to be acid. No evidence of a spill or stained ground was observed during the orphan site field walkdown conducted in 2006.  | No Action    | WSRF/RSVP-2010-078       | N/A                        | N/A                      | confirmatory samples taken on Aug. 9, 2010 | N/A   | N/A                                  | Arsenic               | 7                 | /                    | /                 | /   |
|            |                           |               |                     |  |  |              |                          |                            |                          |  |   |                                      | Barium                | 89.2              | /                    | /                 | /   |
|            |                           |               |                     |  |  |              |                          |                            |                          |  |   |                                      | Beryllium             | 0.18              | /                    | /                 | /   |
|            |                           |               |                     |  |  |              |                          |                            |                          |  |   |                                      | Boron                 | 2.4               | /                    | /                 | /   |
|            |                           |               |                     |  |  |              |                          |                            |                          |  |   |                                      | Cadmium               | 0.45              | /                    | /                 | /   |
|            |                           |               |                     |  |  |              |                          |                            |                          |  |   |                                      | Chromium Total        | 9.3               | /                    | /                 | /   |
|            |                           |               |                     |  |  |              |                          |                            |                          |  |   |                                      | Cobalt                | 7.6               | /                    | /                 | /   |
|            |                           |               |                     |  |  |              |                          |                            |                          |  |   |                                      | Copper                | 16.8              | /                    | /                 | /   |
|            |                           |               |                     |  |  |              |                          |                            |                          |  |   |                                      | Lead                  | 19.3              | /                    | /                 | /   |
|            |                           |               |                     |  |  |              |                          |                            |                          |  |   |                                      | Manganese             | 304               | /                    | /                 | /   |
|            |                           |               |                     |  |  |              |                          |                            |                          |  |   |                                      | Mercury               | 0.016             | /                    | /                 | /   |
|            |                           |               |                     |  |  |              |                          |                            |                          |  |   |                                      | Molybdenum            | 0.38              | /                    | /                 | /   |
|            |                           |               |                     |  |  |              |                          |                            |                          |  |   |                                      | Nickel                | 11.8              | /                    | /                 | /   |
|            |                           |               |                     |  |  |              |                          |                            |                          |  |   |                                      | Vanadium              | 48                | /                    | /                 | /   |
|            |                           |               |                     |  |  |              |                          |                            |                          |  |   |                                      | Zinc                  | 83.6              | /                    | /                 | /   |
|            |                           |               |                     |  |  |              |                          |                            |                          |  |   |                                      | Sulfate               | 21.2              | /                    | /                 | /   |
|            |                           |               |                     |  |  |              |                          |                            |                          |  |   |                                      | benzo(a)anthracene    | 0.045             | /                    | /                 | /   |
|            |                           |               |                     |  |  |              |                          |                            |                          |  |   |                                      | benzo(a)pyrene        | 0.055             | /                    | /                 | /   |
|            |                           |               |                     |  |  |              |                          |                            |                          |  |   |                                      | benzo(b)fluoranthene  | 0.12              | /                    | /                 | /   |
|            |                           |               |                     |  |  |              |                          |                            |                          |  |   |                                      | benzo(ghi)perylene    | 0.045             | /                    | /                 | /   |
|            |                           |               |                     |  |  |              |                          |                            |                          |  |   |                                      | Chrysene              | 0.064             | /                    | /                 | /   |
|            |                           |               |                     |  |  |              |                          |                            |                          |  |   |                                      | Fluoranthene          | 0.041             | /                    | /                 | /   |
|            |                           |               |                     |  |  |              |                          |                            |                          |  |   |                                      | Indeno(1, 2, 3-       | 0.036             | /                    | /                 | /   |
|            |                           |               |                     |  |  |              |                          |                            |                          |  |   |                                      | Pyrene                | 0.055             | /                    | /                 | /   |
| 100-D-88   | Product Piping            | 100-DR-1      | 111.5               | Not Documented                             | Site consists of various miscellaneous pipeline segments.  | No Action    | WSRF 2010-097            | N/A                        | N/A                      | N/A  | N/A   | N/A                                  | Antimony              | 0.51              | /                    | /                 | /   |
|            |                           |               |                     |  |  |              |                          |                            |                          |  |   |                                      | Arsenic               | 2.1               | /                    | /                 | /   |
|            |                           |               |                     |  |  |              |                          |                            |                          |  |   |                                      | Barium                | 105               | /                    | /                 | /   |
|            |                           |               |                     |  |  |              |                          |                            |                          |  |   |                                      | Beryllium             | 0.27              | /                    | /                 | /   |
|            |                           |               |                     |  |  |              |                          |                            |                          |  |   |                                      | Boron                 | 0.93              | /                    | /                 | /   |
|            |                           |               |                     |  |  |              |                          |                            |                          |  |   |                                      | Chromium (total)      | 10.4              | /                    | /                 | /   |
|            |                           |               |                     |  |  |              |                          |                            |                          |  |   |                                      | Cobalt                | 11.5              | /                    | /                 | /   |
|            |                           |               |                     |  |  |              |                          |                            |                          |  |   |                                      | Copper                | 29.2              | /                    | /                 | /   |
|            |                           |               |                     |  |  |              |                          |                            |                          |  |   |                                      | Hexavalent chromium   | 0.3               | /                    | /                 | /   |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code | Site Type         | Operable Unit | Site Dimensions (m)        | Dates of Operation | Site History  | Class Status   | Decision/Closeout Report  | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date                  | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration  |                      |                   |                      | 95% UCL           |     |
|-----------|-------------------|---------------|----------------------------|--------------------|---|----------------|---|----------------------------|--------------------------|---|---|--------------------------------------|--|----------------------|-------------------|----------------------|-------------------|-----|
|           |                   |               |                            |                    |   |                |   |                            |                          |   |   |                                      | COC  | (pCi/g, mg/kg)       |                   | (pCi/g, mg/kg)       |                   |     |
|           |                   |               |                            |                    |   |                |   |                            |                          |   |   |                                      |  | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |     |
|           |                   |               |                            |                    |   |                |   |                            |                          |   |   |                                      | Lead   | 4.4                  | /                 | /                    | /                 | /   |
|           |                   |               |                            |                    |   |                |   |                            |                          |   |   |                                      | Manganese  | 384                  | /                 | /                    | /                 | /   |
|           |                   |               |                            |                    |   |                |   |                            |                          |   |   |                                      | Mercury  | 0.012                | /                 | /                    | /                 | /   |
|           |                   |               |                            |                    |   |                |   |                            |                          |   |   |                                      | Molybdenum   | 0.3                  | /                 | /                    | /                 | /   |
|           |                   |               |                            |                    |   |                |   |                            |                          |   |   |                                      | Nickel   | 10.4                 | /                 | /                    | /                 | /   |
|           |                   |               |                            |                    |   |                |   |                            |                          |   |   |                                      | Vanadium   | 104                  | /                 | /                    | /                 | /   |
|           |                   |               |                            |                    |   |                |   |                            |                          |   |   |                                      | Zinc   | 63.9                 | /                 | /                    | /                 | /   |
|           |                   |               |                            |                    |   |                |   |                            |                          |   |   |                                      | Chloride   | 2.7                  | /                 | /                    | /                 | /   |
|           |                   |               |                            |                    |   |                |   |                            |                          |   |   |                                      | Fluoride   | 1.9                  | /                 | /                    | /                 | /   |
|           |                   |               |                            |                    |   |                |   |                            |                          |   |   |                                      | Nitrate and Nitrite as Nit                                     | 2.8                  | /                 | /                    | /                 | /   |
|           |                   |               |                            |                    |   |                |   |                            |                          |   |   |                                      | Sulfate  | 27.4                 | /                 | /                    | /                 | /   |
|           |                   |               |                            |                    |   |                |   |                            |                          |   |   |                                      | TPH - diesel range EXT   | 15000                | /                 | /                    | /                 | /   |
|           |                   |               |                            |                    |   |                |   |                            |                          |   |   |                                      | Aroclor-1260   | 2.9                  | /                 | /                    | /                 | /   |
| 100-D-89  | Dumping Area      | 100-DR-2      | 0.2 x 1.5 (height)         | Not Documented     | This site consists of two surface debris areas containing abandoned electrical components. The surface debris observed consisted of a downed electrical utility pole and an electrical service box. The electrical box was used as a junction box and should not have contained PCBs. This site is recommended for transition to WCH Miscellaneous Restoration upon completion of the deposition through the TPA-MP-14 process. | Not Accepted   | TPA-MP-14 WIDS Discovery Site Evaluation checklist approved by the Regulators | N/A                        | N/A                      | N/A   | N/A   | N/A                                  | N/A  | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 100-D-9   | Storage Tank      | 100-DR-1      | 18.10 m <sup>2</sup>       | 1967-1985          | Former location of an UST for fuel oil for the 184-DA boiler House. Site was excavated in 1994 to confirm tank removal and determine no soil contamination existed.   | Interim Closed | WSRF/RSVP-2006-030  | N/A                        | N/A                      | confirmatory sampling done on Jan. 4, 2006  | N/A   | N/A                                  | Arsenic  | 1.2 (<BG)            | /                 | /                    | /                 | /   |
|           |                   |               |                            |                    |   |                |   |                            |                          |   |   |                                      | Barium   | 63.8 (<BG)           | /                 | /                    | /                 | /   |
|           |                   |               |                            |                    |   |                |   |                            |                          |   |   |                                      | Beryllium  | 0.47 (<BG)           | /                 | /                    | /                 | /   |
|           |                   |               |                            |                    |   |                |   |                            |                          |   |   |                                      | Boron  | 0.82                 | /                 | /                    | /                 | /   |
|           |                   |               |                            |                    |   |                |   |                            |                          |   |   |                                      | Cadmium  | 0.17 (<BG)           | /                 | /                    | /                 | /   |
|           |                   |               |                            |                    |   |                |   |                            |                          |   |   |                                      | Chromium   | 3.5 (<BG)            | /                 | /                    | /                 | /   |
|           |                   |               |                            |                    |   |                |   |                            |                          |   |   |                                      | Cobalt   | 8.6 (<BG)            | /                 | /                    | /                 | /   |
|           |                   |               |                            |                    |   |                |   |                            |                          |   |   |                                      | Copper   | 14.3 (<BG)           | /                 | /                    | /                 | /   |
|           |                   |               |                            |                    |   |                |   |                            |                          |   |   |                                      | Lead   | 2 (<BG)              | /                 | /                    | /                 | /   |
|           |                   |               |                            |                    |   |                |   |                            |                          |   |   |                                      | Manganese  | 299 (<BG)            | /                 | /                    | /                 | /   |
|           |                   |               |                            |                    |   |                |   |                            |                          |   |   |                                      | Molybdenum   | 0.45                 | /                 | /                    | /                 | /   |
|           |                   |               |                            |                    |   |                |   |                            |                          |   |   |                                      | Nickel   | 9.1 (<BG)            | /                 | /                    | /                 | /   |
|           |                   |               |                            |                    |   |                |   |                            |                          |   |   |                                      | Vanadium   | 67.3 (<BG)           | /                 | /                    | /                 | /   |
|           |                   |               |                            |                    |   |                |   |                            |                          |   |   |                                      | Zinc   | 43.1 (<BG)           | /                 | /                    | /                 | /   |
|           |                   |               |                            |                    |   |                |   |                            |                          |   |   |                                      | Di-n-butylphthalate  | 0.025                | /                 | /                    | /                 | /   |
|           |                   |               |                            |                    |   |                |   |                            |                          |   |   |                                      | Acetone  | 0.007                | /                 | /                    | /                 | /   |
| 100-D-90  | Unplanned Release | 100-DR-1      | 1.82 x 6.09                | 1944-2003          | The site is the soil located below two transformers sitting on railroad ties located west of the 183-D Facility. They are identified as C4814E and C4815E. They were removed from service in 2003 and drained in 2005 by Fluor Electrical Utilities group. The transformers contained oil with <499 ppm of PCBs and the site has the potential to contain PCBs. However, there was no signs of stained soil.                    | No Action      | WSRF/RSVP-2009-050  | N/A                        | N/A                      | confirmatory samples taken on Aug. 17, 2010 | N/A   | N/A                                  | Samples were tested only for PCBs, which were all non-detects. |                      |                   |                      |                   |     |
| 100-D-91  | Dumping Area      | 100-DR-1      | 4 pallets each 1.2 x 1.2 m | Not Documented     | Location consists of 4 pallets of staged, abandoned electrical components, each pallet is 1.2 m by 1.2 m. Site was visited in 2006 and photographed in support of the Orphan Site Evaluation as a Miscellaneous Restoration item. There were no signs of soil staining and there were no transformers or other PCB containing items on the pallets.   | Not Accepted   | TPA-MP-14 WIDS Discovery Site Evaluation checklist approved by the Regulators | N/A                        | N/A                      | N/A   | N/A   | N/A                                  | N/A  | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 100-D-92  | Storage Tank      | 100-DR-1      | 12.2 x 4.5 x 0.6           | Not Documented     | This site is the location of an underground concrete utility encasement and underlying soil located approximately 0.9 m below a rail line.  | Rejected       | WSRF 2009-048   | N/A                        | N/A                      | N/A   | N/A   | N/A                                  | N/A  | N/A                  | N/A               | N/A                  | N/A               | N/A |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code           | Site Type                    | Operable Unit | Site Dimensions (m)  | Dates of Operation | Site History   | Class Status | Decision/Closeout Report | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | COC | Maximum Concentration |                   | 95% UCL              |                   |   |
|---------------------|------------------------------|---------------|--|--------------------|--|--------------|--------------------------|----------------------------|--------------------------|----------------------------|---|--------------------------------------|-----|-----------------------|-------------------|----------------------|-------------------|---|
|                     |                              |               |  |                    |  |              |                          |                            |                          |                            |   |                                      |     | (pCi/g, mg/kg)        |                   | (pCi/g, mg/kg)       |                   |   |
|                     |                              |               |  |                    |  |              |                          |                            |                          |                            |   |                                      |     | Shallow <sup>a</sup>  | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |   |
| 100-D-93            | Storage Tank                 | 100-DR-1      | 12.2 x 4.5 x 0.6   | 1944-?             | This site is the location of an underground concrete utility encasement and underlying soil located below a rail line. The site originally was reported as part of a geophysical investigation as a potential UST. A detailed spatial analysis was conducted, and it determined the feature was a known piping encasement below the railroad tracks. | Rejected     | WSRF 2009-003            | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A | N/A                   | N/A               | N/A                  | N/A               |   |
| 100-D-94            | Depression/Pit (nonspecific) | 100-DR-2      | 1.82 x 1.82 x 1.82   | Not Documented     | The site consists of an area of suspect chromium contamination observed in a pit under the DR Water Tower. This site served as a valve pit for process water stored in the 187-DR Water Tower. The water tower provided emergency cooling water to the 105-DR Reactor.   | No Action    | WSRF 2010-084            | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A | Aluminum              | 5920              | /                    | /                 | / |
|                     |                              |               |  |                    |  |              |                          |                            |                          |                            |   |                                      |     | Antimony              | 0.45              | /                    | /                 | / |
|                     |                              |               |  |                    |  |              |                          |                            |                          |                            |   |                                      |     | Arsenic               | 2.1               | /                    | /                 | / |
|                     |                              |               |  |                    |  |              |                          |                            |                          |                            |   |                                      |     | Barium                | 59.8              | /                    | /                 | / |
|                     |                              |               |  |                    |  |              |                          |                            |                          |                            |   |                                      |     | Beryllium             | 0.2               | /                    | /                 | / |
|                     |                              |               |  |                    |  |              |                          |                            |                          |                            |   |                                      |     | Chromium (total)      | 9                 | /                    | /                 | / |
|                     |                              |               |  |                    |  |              |                          |                            |                          |                            |   |                                      |     | Cobalt                | 6.3               | /                    | /                 | / |
|                     |                              |               |  |                    |  |              |                          |                            |                          |                            |   |                                      |     | Copper                | 12                | /                    | /                 | / |
|                     |                              |               |  |                    |  |              |                          |                            |                          |                            |   |                                      |     | Lead                  | 24.7              | /                    | /                 | / |
|                     |                              |               |  |                    |  |              |                          |                            |                          |                            |   |                                      |     | Manganese             | 275               | /                    | /                 | / |
|                     |                              |               |  |                    |  |              |                          |                            |                          |                            |   |                                      |     | Mercury               | 0.58              | /                    | /                 | / |
|                     |                              |               |  |                    |  |              |                          |                            |                          |                            |   |                                      |     | Nickel                | 10                | /                    | /                 | / |
|                     |                              |               |  |                    |  |              |                          |                            |                          |                            |   |                                      |     | Vanadium              | 40.2              | /                    | /                 | / |
|                     |                              |               |  |                    |  |              |                          |                            |                          |                            |   |                                      |     | Zinc                  | 38.7              | /                    | /                 | / |
|                     |                              |               |  |                    |  |              |                          |                            |                          |                            |   |                                      |     | Chloride              | 2.7               | /                    | /                 | / |
|                     |                              |               |  |                    |  |              |                          |                            |                          |                            |   |                                      |     | Fluoride              | 1.1               | /                    | /                 | / |
| Nitrate as Nitrogen | 1.8                          | /             | /  | /                  |  |              |                          |                            |                          |                            |   |                                      |     |                       |                   |                      |                   |   |
| Nitrate/Nitrite     | 2.7                          | /             | /  | /                  |  |              |                          |                            |                          |                            |   |                                      |     |                       |                   |                      |                   |   |
| Sulfate             | 10.9                         | /             | /  | /                  |  |              |                          |                            |                          |                            |   |                                      |     |                       |                   |                      |                   |   |
| 100-D-95            | Septic Tank                  | 100-DR-1      | 67.0 (sewer line)  | Not Documented     | This is the site of what is believed to have been two septic tanks and a tile field.   | Rejected     | N/A                      | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A | N/A                   | N/A               | N/A                  | N/A               |   |
| 100-D-96            | French Drain                 | 100-DR-1      | Diameters range from 0.45 to 0.91 m                                      | Not Documented     | The site consists of seven French drains, one dry well location, and their underlying soil. Each of the facilities with which the French drains are associated were nonradioactive buildings.  | Accepted     | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A | N/A                   | N/A               | N/A                  | N/A               |   |
| 100-D-97            | Storage Tank                 | 100-DR-1      | 2.0 x 1.25   | 1968-1995          | This site consists of the underlying soil, a potential fuel UST, and associated fuel oil supply and fuel oil return piping (1.27 cm- [1.5-in.-] diameter). It is believed that these items were removed in 1985/1986 as part of the 100-D/DR general demolition efforts. It now appears as a cobble-covered field with vegetation.                   | Accepted     | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A | N/A                   | N/A               | N/A                  | N/A               |   |
| 100-D-98:1          | Electrical Substation        | 100-DR-1      | Concrete pads varied from 0.61 to 2.1 m wide, and from 0.9 to 6.4 m long | 1944-present       | This site consists of two active (C4S17 and 152-D1-D) and underlying soil. The active substations are associated with the 181-D and 182-D facilities.  | Accepted     | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A | N/A                   | N/A               | N/A                  | N/A               |   |
| 100-D-98:2          | Electrical Substation        | 100-DR-1      | Concrete pads varied from 0.61 to 2.1 m wide, and from 0.9 to 6.4 m long | 1944-present       | This site consists nine-teen former distribution and secondary electrical substations and underlying soil.   | Accepted     | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A | N/A                   | N/A               | N/A                  | N/A               |   |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code           | Site Type   | Operable Unit        | Site Dimensions (m)   | Dates of Operation   | Site History   | Class Status   | Decision/Closeout Report       | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date    | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration |          |                |   |           |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
|---------------------|-------------|----------------------|---|----------------------|--|----------------|--------------------------------|----------------------------|--------------------------|-------------------------------|---|--------------------------------------|-----------------------|----------|----------------|---|-----------|---|----------------|---------------------------------|---------------|---------------|-------------------------------|--------|-----|---------------|---------|------|--------------------|------|
|                     |             |                      |   |                      |  |                |                                |                            |                          |                               |   |                                      | COC                   |          | 95% UCL        |   |           |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
|                     |             |                      |   |                      |  |                |                                |                            |                          |                               |   |                                      | (pCi/g, mg/kg)        |          | (pCi/g, mg/kg) |   |           |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
|                     |             | Shallow <sup>a</sup> | Deep <sup>b</sup>   | Shallow <sup>a</sup> | Deep <sup>b</sup>  |                |                                |                            |                          |                               |   |                                      |                       |          |                |   |           |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
| 100-D-99            | Septic Tank | 100-DR-1             | Not Documented  | 1944-?               | The site is a possible septic system and the underlying soils. Based on a 1944 photo of a fenced area between two buildings it was concluded that the area contained a septic system. It was common practice to install a fence around septic tanks or drain fields.   | Accepted       | Not Documented                 | N/A                        | N/A                      | N/A                           | N/A   | N/A                                  | N/A                   | N/A      | N/A            | N/A   | N/A       |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
| 116-D-1A            | Trench      | 100-DR-1             | 39.6 x 3.05 x 1.83 deep<br><br>Depth at this site also reported to be 3 m and 6.4 m | 1947-1952            | Received 200,000 L (52,834 gal) of contaminated water and sludge from the 118-D-6 Fuel Storage basin; 1,000 kg (2,200 lb) of sodium dichromate; 4.7 Ci.  | Interim Closed | WSRF2000-115<br>CVP-2000-00010 | Oct. 21, 1999              | Jul. 11, 2000            | Jul. 26, 2000 to Aug. 2, 2000 | 10,987  | 4.6                                  | Americium-241         | 0.150 U  | 4.32           | 0.173   | 1.12      |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
|                     |             |                      |   |                      |  |                |                                |                            |                          |                               |   |                                      | Cobalt-60             | 0.043 U  | 7.81           | 0.0351  | 6.3       |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
|                     |             |                      |   |                      |  |                |                                |                            |                          |                               |   |                                      | Cesium-137            | 1.28     | 409            | 0.724   | 324       |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
|                     |             |                      |   |                      |  |                |                                |                            |                          |                               |   |                                      | Europium-152          | 0.348    | 193            | 0.248   | 157       |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
|                     |             |                      |   |                      |  |                |                                |                            |                          |                               |   |                                      | Europium-154          | 0.15 U   | 15.8           | 0.109   | 12.8      |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
|                     |             |                      |   |                      |  |                |                                |                            |                          |                               |   |                                      | Plutonium-239/240     | 0.02 U   | 19             | 0.0797  | 8.76      |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
|                     |             |                      |   |                      |  |                |                                |                            |                          |                               |   |                                      | Strontium-90          | 0.315 J  | 36.8           | 0.202   | 19.1      |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
|                     |             |                      |   |                      |  |                |                                |                            |                          |                               |   |                                      | Uranium-238           | 0.607 J  | 0.56           | 0.476   | 0.437     |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
|                     |             |                      |   |                      |  |                |                                |                            |                          |                               |   |                                      | Hexavalent Chromium   | 0.61     | 4.7            | 0.61  | 2.6       |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
|                     |             |                      |   |                      |  |                |                                |                            |                          |                               |   |                                      | 116-D-1B              | Trench   | 100-DR-1       | 39.6 x 3.05 x 6.4 deep<br><br>Depth at this site also reported as 1.8 and 5 m | 1953-1967 | Received 8,000,000 L (2,113,376 gal) of contaminated water and sludge from the 118-D-6 Fuel Storage basin. Radiological inventory is 2.6 Ci.  | Interim Closed | WSRF2000-115<br>CVP-2000-00010  | Oct. 21, 1999 | Jul. 11, 2000 | Jul. 26, 2000 to Aug. 2, 2000 | 10,987 | 4.6 | Americium-241 | 0.150 U | 4.32 | 0.173              | 1.12 |
| Cobalt-60           | 0.043 U     | 7.81                 | 0.0351  | 6.3                  |  |                |                                |                            |                          |                               |   |                                      |                       |          |                |   |           |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
| Cesium-137          | 1.28        | 409                  | 0.724   | 324                  |  |                |                                |                            |                          |                               |   |                                      |                       |          |                |   |           |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
| Europium-152        | 0.348       | 193                  | 0.248   | 157                  |  |                |                                |                            |                          |                               |   |                                      |                       |          |                |   |           |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
| Europium-154        | 0.15 U      | 15.8                 | 0.109   | 12.8                 |  |                |                                |                            |                          |                               |   |                                      |                       |          |                |   |           |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
| Plutonium-239/240   | 0.02 U      | 19                   | 0.0797  | 8.76                 |  |                |                                |                            |                          |                               |   |                                      |                       |          |                |   |           |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
| Strontium-90        | 0.315 J     | 36.8                 | 0.202   | 19.1                 |  |                |                                |                            |                          |                               |   |                                      |                       |          |                |   |           |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
| Uranium-238         | 0.607 J     | 0.56                 | 0.476   | 0.437                |  |                |                                |                            |                          |                               |   |                                      |                       |          |                |   |           |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
| Hexavalent Chromium | 0.61        | 4.7                  | 0.61  | 2.6                  |  |                |                                |                            |                          |                               |   |                                      |                       |          |                |   |           |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
| 116-D-10            | Pond        | 100-DR-1             | 10.7 x 6.7 x 0.9 (West)<br><br>15.2 x 7.3 x 1.2 (East)                              | 1984                 | The unit consists of two open excavated pits (ponds) with a crossover channel connecting them. The small size of the excavation (west pond) only allowed for the discharge of one holding tank per day 75,708 L (20,000 gal). The east pit (pond) was larger, to support an increase in discharge capacity. The unit received processed water from the 105-D Fuel Storage basin. | Interim Closed | WSRF/RSVP-2009-042             | Apr. 24, 2008              | May. 13 or 16, 2008      | Jul. 2009                     | 2,400 or 2,700 BCM                              | 4.6 or 5                             | Excavation            |          | Staging Pile   |   |           |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
|                     |             |                      |   |                      |  |                |                                |                            |                          |                               |   |                                      | Maximum               | 95% UCL  | Maximum        | 95% UCL   |           |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
|                     |             |                      |   |                      |  |                |                                |                            |                          |                               |   |                                      | Cesium-137            | 0.146    | 0.059          | 0.079   | 0.028     |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
|                     |             |                      |   |                      |  |                |                                |                            |                          |                               |   |                                      | Strontium-90          | 3.25     | 0.336          | 0.893   | 0.137     |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
|                     |             |                      |   |                      |  |                |                                |                            |                          |                               |   |                                      | Uranium-233/234       | 0.653    | 0.495          | 0.784   | 0.514     |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
|                     |             |                      |   |                      |  |                |                                |                            |                          |                               |   |                                      | Uranium-238           | 0.58     | 0.495          | 0.708   | 0.492     |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
|                     |             |                      |   |                      |  |                |                                |                            |                          |                               |   |                                      | Antimony              | 0.496 JB | 0.444          | 0.484   | 0.484     |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
|                     |             |                      |   |                      |  |                |                                |                            |                          |                               |   |                                      | Arsenic               | 3.42     | 2.65           | 2.76  | 2         |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
|                     |             |                      |   |                      |  |                |                                |                            |                          |                               |   |                                      | Barium                | 90.1     | 70.1           | 67.2  | 60.6      |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
|                     |             |                      |   |                      |  |                |                                |                            |                          |                               |   |                                      | Beryllium             | 0.314    | 0.229          | 0.194   | 0.17      |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
|                     |             |                      |   |                      |  |                |                                |                            |                          |                               |   |                                      | Boron                 | 1.65     | 1.24           | 1.22 B  | 0.882     |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
|                     |             |                      |   |                      |  |                |                                |                            |                          |                               |   |                                      | Cadmium               | 0.121 B  | 0.109          | 0.112 B   | 0.0987    |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
|                     |             |                      |   |                      |  |                |                                |                            |                          |                               |   |                                      | Chromium Total        | 11.6     | 9.3            | 7.32  | 5.98      |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
|                     |             |                      |   |                      |  |                |                                |                            |                          |                               |   |                                      | Cobalt                | 10.1     | 8.46           | 9.34  | 8.88      |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
|                     |             |                      |   |                      |  |                |                                |                            |                          |                               |   |                                      | Copper                | 20.4     | 15.3           | 14.4  | 13.9      |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
|                     |             |                      |   |                      |  |                |                                |                            |                          |                               |   |                                      | Hexavalent Chromium   | 0.24     | 0.179          | 0.200 B   | 0.152     |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
|                     |             |                      |   |                      |  |                |                                |                            |                          |                               |   |                                      | Lead                  | 4.26     | 3.47           | 3.74  | 2.91      |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
|                     |             |                      |   |                      |  |                |                                |                            |                          |                               |   |                                      | Manganese             | 398      | 323            | 345   | 318       |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
|                     |             |                      |   |                      |  |                |                                |                            |                          |                               |   |                                      | Mercury               | /        | /              | 0.0153  | 0.0153    |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
|                     |             |                      |   |                      |  |                |                                |                            |                          |                               |   |                                      | Molybdenum            | 0.497 B  | 0.383          | 0.432 B   | 0.413     |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
|                     |             |                      |   |                      |  |                |                                |                            |                          |                               |   |                                      | Nickel                | 13.9     | 11             | 11.3  | 8.79      |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
|                     |             |                      |   |                      |  |                |                                |                            |                          |                               |   |                                      | Silver                | /        | /              | 0.201   | 0.154     |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
|                     |             |                      |   |                      |  |                |                                |                            |                          |                               |   |                                      | Vanadium              | 82.9     | 67.7           | 81.8  | 76        |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
|                     |             |                      |   |                      |  |                |                                |                            |                          |                               |   |                                      | Zinc                  | 52.7     | 44.5           | 47.2  | 45.7      |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
|                     |             |                      |   |                      |  |                |                                |                            |                          |                               |   |                                      | 116-D-2               | Crib     | 100-DR-1       | 3.1 x 3.1 x 3.1   | 1950-1956 | Site was used to isolate coolant flow from process tubes containing ruptured fuel elements. Effluent volume received is 4,000 L (1,057 gal). Inventory includes 0.004 kg (0.008 lb) of sodium dichromate. | Interim Closed | WSRF 2000-098<br>CVP-2000-00013 | Nov. 1, 1999  | Nov. 2, 1999  | Jan. 3, 2000                  | 623    | 3   | Americium-241 | 0.33 U  | /    | 0.274 <sup>c</sup> | /    |
|                     |             |                      |   |                      |  |                |                                |                            |                          |                               |   |                                      |                       |          |                |   |           |   |                |                                 |               |               |                               |        |     | Cobalt-60     | 0.33 U  | /    | 0.041 <sup>c</sup> | /    |
|                     |             |                      |   |                      |  |                |                                |                            |                          |                               |   |                                      |                       |          |                |   |           |   |                |                                 |               |               |                               |        |     | Cesium-137    | 0.068   | /    | 0.057 <sup>c</sup> | /    |
| Europium-152        | 0.29 U      | /                    | 0.096 <sup>c</sup>  | /                    |  |                |                                |                            |                          |                               |   |                                      |                       |          |                |   |           |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
| Europium-154        | 0.26 U      | /                    | 0.126 <sup>c</sup>  | /                    |  |                |                                |                            |                          |                               |   |                                      |                       |          |                |   |           |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
| Plutonium-238       | 0.054 U     | /                    | 0.109   | /                    |  |                |                                |                            |                          |                               |   |                                      |                       |          |                |   |           |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
| Plutonium-239/240   | 0.019 U     | /                    | 0.088 <sup>c</sup>  | /                    |  |                |                                |                            |                          |                               |   |                                      |                       |          |                |   |           |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
| Strontium-90        | 0.06 U      | /                    | 0.175 <sup>c</sup>  | /                    |  |                |                                |                            |                          |                               |   |                                      |                       |          |                |   |           |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
| Uranium-233/234     | 0.64 J      | /                    | 0.514 <sup>c</sup>  | /                    |  |                |                                |                            |                          |                               |   |                                      |                       |          |                |   |           |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
| Uranium-238         | 0.644 J     | /                    | 0.457 <sup>c</sup>  | /                    |  |                |                                |                            |                          |                               |   |                                      |                       |          |                |   |           |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |
| Hexavalent Chromium | 0.43 U      | /                    | 0.43 U <sup>c</sup>   | /                    |  |                |                                |                            |                          |                               |   |                                      |                       |          |                |   |           |   |                |                                 |               |               |                               |        |     |               |         |      |                    |      |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code  | Site Type | Operable Unit | Site Dimensions (m)                      | Dates of Operation | Site History  | Class Status   | Decision/Closeout Report              | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration  |                      |                   |                      | 95% UCL           |  |
|------------|-----------|---------------|--|--------------------|---|----------------|---------------------------------------|----------------------------|--------------------------|----------------------------|---|--------------------------------------|--|----------------------|-------------------|----------------------|-------------------|--|
|            |           |               |  |                    |   |                |                                       |                            |                          |                            |   |                                      | COC  | (pCi/g, mg/kg)       |                   | (pCi/g, mg/kg)       |                   |  |
|            |           |               |  |                    |   |                |                                       |                            |                          |                            |   |                                      |  | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |  |
| 116-D-3    | Crib      | 100-DR-1      | 2.44 x 2.44 x 2.44                       | 1951-1967          | 116-D-3 has been investigated at all historically reported locations by excavation. No evidence of a structure or contamination (using field instruments) was found. It has been determined that 116-D-3 is actually the same site as 116-D-4. Remediation of 116-D-4 was complete on 10/2/99. Therefore, the crib is identified as a no-action site. The crib was suspected of receiving low-level fission product wastes in contaminated wash water from the 108-D Shipping Cask Handling Facility. | No Action      | WSRF 2002-060 (replaces WSRF 2000-02) | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | WSRF 2000-02 states that 116-D-3 is actually the same site as 116-D-4. Remediation of 116-D-4 took place on Oct. 20-21, 1999. It also lists the site as rejected. WSRF 2002-060 states that neither 116-D-3 or 116-D-4 have been able to be located based on data, lists as No Action. |                      |                   |                      |                   |  |
| 116-D-4    | Crib      | 100-DR-1      | 2.4 x 2.4 x 5<br>0.9 x 1.7 also reported | 1956-1967          | This site is also described as a rock-filled French drain. Received 30,000 L (7,925 gal) of contaminated liquid from the 108-D Maintenance and Technical Laboratory. contaminated effluent also included decontamination solutions, solvents, and low-level fission products.   | Interim Closed | WSRF 2000-067<br>CVP-2000-00008       | 10/20/1999                 | 10/21/1999               | Jan 3-4, 2000              | Not documented                                  | 2.8                                  | Uranium-238  | 0.668 J              |                   | 0.417                |                   |  |
|            |           |               |  |                    |   |                |                                       |                            |                          |                            |   |                                      | Hexavalent Chromium  | 0.43 U               |                   | 0.43 U               |                   |  |
| 116-D-5    | Outfall   | 100-DR-1      | 18.3 x 7.3                               | 1944-1975          | Structure was an open concrete compartmentalized weir structure located at the top of the riverbank west of the 107-D Retention basin. Received effluent from the retention basins before release to the Columbia River.  | Interim Closed | WSCF-2010-12                          | Feb-09                     | Mar-01                   | Mar-11                     | 2275 BCM  | 11                                   | Cesium-137   | /                    | /                 | 0.373735051          | 1.02117093        |  |
|            |           |               |  |                    |   |                |                                       |                            |                          |                            |   |                                      | Europium-152   | /                    | /                 | 0.254647862          | 0.44932277        |  |
|            |           |               |  |                    |   |                |                                       |                            |                          |                            |   |                                      | Strontium-90   | /                    | /                 | /                    | 0.12952767        |  |
|            |           |               |  |                    |   |                |                                       |                            |                          |                            |   |                                      | Nickel-63  | /                    | /                 | 2.301388279          | /                 |  |
|            |           |               |  |                    |   |                |                                       |                            |                          |                            |   |                                      | Plutonium-239/240  | /                    | /                 | 0.012407112          | /                 |  |
|            |           |               |  |                    |   |                |                                       |                            |                          |                            |   |                                      | Uranium-233/234  | /                    | /                 | 0.646269082          | 0.53066336        |  |
|            |           |               |  |                    |   |                |                                       |                            |                          |                            |   |                                      | Uranium-238  | /                    | /                 | 0.63893868           | 0.57171482        |  |
|            |           |               |  |                    |   |                |                                       |                            |                          |                            |   |                                      | Antimony   | /                    | 0.438             | /                    | /                 |  |
|            |           |               |  |                    |   |                |                                       |                            |                          |                            |   |                                      | Arsenic  | /                    | /                 | 2.86                 | 3.08              |  |
|            |           |               |  |                    |   |                |                                       |                            |                          |                            |   |                                      | Barium   | /                    | /                 | 63.5                 | 72.3              |  |
|            |           |               |  |                    |   |                |                                       |                            |                          |                            |   |                                      | Beryllium  | /                    | /                 | 0.21                 | 0.255             |  |
|            |           |               |  |                    |   |                |                                       |                            |                          |                            |   |                                      | Boron  | /                    | /                 | 1.16                 | 0.934             |  |
|            |           |               |  |                    |   |                |                                       |                            |                          |                            |   |                                      | Cadmium  | /                    | /                 | 0.0685               | 0.0897            |  |
|            |           |               |  |                    |   |                |                                       |                            |                          |                            |   |                                      | Chromium (total)   | /                    | /                 | 11                   | 19.7              |  |
|            |           |               |  |                    |   |                |                                       |                            |                          |                            |   |                                      | Cobalt   | /                    | /                 | 8.85                 | 8.97              |  |
|            |           |               |  |                    |   |                |                                       |                            |                          |                            |   |                                      | Copper   | /                    | /                 | 16.8                 | 18                |  |
|            |           |               |  |                    |   |                |                                       |                            |                          |                            |   |                                      | Hexavalent chromium  | /                    | /                 | 0.18                 | 0.34              |  |
|            |           |               |  |                    |   |                |                                       |                            |                          |                            |   |                                      | Lead   | /                    | /                 | 3.67                 | 5.63              |  |
|            |           |               |  |                    |   |                |                                       |                            |                          |                            |   |                                      | Manganese  | /                    | /                 | 326                  | 334               |  |
|            |           |               |  |                    |   |                |                                       |                            |                          |                            |   |                                      | Mercury  | 0.0651               | /                 | /                    | 0.126             |  |
| Molybdenum | /         | /             | 0.316                                    | 0.315              |   |                |                                       |                            |                          |                            |   |                                      |  |                      |                   |                      |                   |  |
| Nickel     | /         | /             | 11.967                                   | 12.9               |   |                |                                       |                            |                          |                            |   |                                      |  |                      |                   |                      |                   |  |
| Silver     | 1.3       | /             | /  | /                  |   |                |                                       |                            |                          |                            |   |                                      |  |                      |                   |                      |                   |  |
| Vanadium   | /         | /             | 63.7                                     | 58.6               |   |                |                                       |                            |                          |                            |   |                                      |  |                      |                   |                      |                   |  |
| Zinc       | /         | /             | 50,894                                   | 49.8               |   |                |                                       |                            |                          |                            |   |                                      |  |                      |                   |                      |                   |  |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code | Site Type       | Operable Unit | Site Dimensions (m)    | Dates of Operation | Site History  | Class Status   | Decision/Closeout Report        | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date                           | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration           |                      |                   |                      | 95% UCL            |  |
|-----------|-----------------|---------------|------------------------|--------------------|---|----------------|---------------------------------|----------------------------|--------------------------|--|---|--------------------------------------|---------------------------------|----------------------|-------------------|----------------------|--------------------|--|
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | COC                             | (pCi/g, mg/kg)       |                   | (pCi/g, mg/kg)       |                    |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      |                                 | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup>  |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Chloride                        | 13.9                 | /                 | /                    | 9.05               |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Fluoride                        | /                    | 1.1               | 1.1                  | /                  |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Nitrate and Nitrite as Nitrogen | /                    | /                 | 3.53                 | 10.6               |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Sulfate                         | /                    | /                 | 18.3                 | 55                 |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Bis(2-ethylhexyl)phthalate      | /                    | 0.12              | /                    | /                  |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Benzo(a)anthracene              | 11.8                 | /                 | /                    | 0.087              |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Benzo(a)pyrene                  | 8.56                 | /                 | /                    | 0.057              |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Benzo(b)fluoranthene            | 15.2                 | /                 | /                    | 0.087              |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Benzo(ghi)perylene              | /                    | 0.19              | /                    | /                  |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Benzo(k)fluoranthene            | 5.01                 | /                 | /                    | 0.049              |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Chrysene                        | 12.8                 | /                 | /                    | 0.08               |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Dibenz(a,h)anthracene           | /                    | 0.036             | /                    | /                  |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Fluoranthene                    | /                    | /                 | 10.5                 | 0.0836             |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Indeno(1,2,3-cd)pyrene          | 6.34                 | 0.22              | /                    | /                  |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Phenanthrene                    | 6.16                 | 0.043             | /                    | /                  |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Pyrene                          | 13.9                 | 0.6               | /                    | /                  |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | beta-BHC                        | /                    | /                 | /                    | /                  |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | 4,4'-DDE                        | /                    | 0.001             | /                    | /                  |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Endrin Aldehyde                 | /                    | /                 | /                    | /                  |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Endrin ketone                   | /                    | /                 | /                    | /                  |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      |                                 |                      |                   |                      |                    |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      |                                 |                      |                   |                      |                    |  |
| 116-D-6   | French Drain    | 100-DR-1      | 1 (dia.) x 1           | 1953-1967          | French drain that received 100,000 L (26,417 gal) of domestic wastewater from the change room and mask decontamination station during reactor operations.   | Interim Closed | WSRF 2006-106<br>CVP-2000-00009 | 10/21/1999                 | 1/3/2000                 | 2/29/2000  | 200   | 4.6                                  | Americium-241                   | /                    | 0.097 U           | /                    | 0.141 <sup>c</sup> |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Cesium-137                      | /                    | 0.538             | /                    | 0.478 <sup>c</sup> |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Europium-152                    | /                    | 2.87              | /                    | 2.54 <sup>c</sup>  |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Europium-154                    | /                    | 0.170 U           | /                    | 0.155 <sup>c</sup> |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Plutonium-239/240               | /                    | 0.038             | /                    | 0.056 <sup>c</sup> |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Uranium-233/234                 | /                    | 0.68 J            | /                    | 0.504 <sup>c</sup> |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Uranium-238                     | /                    | 0.604 J           | /                    | 0.429 <sup>c</sup> |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Chromium Total                  | /                    | 10.7              | /                    | 9 <sup>c</sup>     |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Mercury                         | /                    | 0.05 U            | /                    | 0.05 <sup>c</sup>  |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Lead                            | /                    | 3.8               | /                    | 3.8 <sup>c</sup>   |  |
| 116-D-7   | Retention basin | 100-DR-1      | 142 x 70 x 5.7         | 1944-1967          | Site was an open concrete basin that retained cooling water effluent from the 105-D Reactor for radioactive decay and thermal cooling before release to the Columbia River. Total radionuclide inventory in the vicinity ranged from 5 to 400 Ci. | Interim Closed | WSRF 2000-007<br>CVP-99-00007   | May. 1, 1997               | Not documented in CVP    | Aug., Sept., & Nov. of 1998; and Jan. & Feb. of 1999 | 177,724   | 7.4                                  | Americium-241                   | 0.34 U               | 0.43              | 0.055                | 0.231              |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Cobalt-60                       | 0.077 U              | 40                | 0.039                | 17.9               |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Cesium-137                      | 0.34                 | 45                | 0.181                | 30.1               |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Europium-152                    | 0.52                 | 370               | 0.355                | 176                |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Europium-154                    | 0.26 U               | 53                | 0.066                | 24.4               |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Europium-155                    | 0.19 U               | 2.6               | 0.051                | 1.5                |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Nickel-63                       | 15.7 J               | 1,300 J           | 4.4                  | 547                |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Plutonium-238                   | 0.02 U               | 0.049             | 0.03                 | 0.038              |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Plutonium-239/240               | 0.037 U              | 1.8               | 0.028                | 0.801              |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Strontium-90                    | 0.037 U              | 2.1               | 0.211                | 1.57               |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Hexavalent Chromium             | 1.3                  | 18                | 1.3                  | 3.26               |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Chromium Total                  | 10.4                 | 339               | 8                    | 206                |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Mercury                         | 0.11 U               | 2.4               | 0.02                 | 1.13               |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Lead                            | 4.8                  | 10.3              | 3.5                  | 7.55               |  |
| 116-D-8   | Storage         | 100-DR-2      | 1,049.5 m <sup>2</sup> | 1946-1975          | The site is a concrete pad with two drains that stored shipping and handling casks. The site was covered with grey grout.   | Interim Closed | WSRF-2009-015                   | Aug-08                     | Feb-09                   | June 2009-February 2011                              | ~1,170 BCM                                      | 1.5                                  | Cesium-137                      | /                    | /                 | 2.5                  | /                  |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Strontium-90                    | /                    | /                 | 0.4                  | /                  |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Uranium-233/234                 | /                    | /                 | 0.1                  | /                  |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Uranium-238                     | /                    | /                 | 0.1                  | /                  |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Antimony                        | 0.4                  | /                 | /                    | /                  |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Arsenic                         | /                    | /                 | 2.9                  | /                  |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Barium                          | /                    | /                 | 71.4                 | /                  |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Beryllium                       | /                    | /                 | 0.5                  | /                  |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Boron                           | /                    | /                 | 1.2                  | /                  |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Cadmium                         | 0.063                | /                 | /                    | /                  |  |
|           |                 |               |                        |                    |   |                |                                 |                            |                          |  |   |                                      | Chloride                        | /                    | /                 | 4.7                  | /                  |  |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code | Site Type | Operable Unit | Site Dimensions (m) | Dates of Operation | Site History | Class Status | Decision/Closeout Report | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration           |                      |                   |                      | 95% UCL           |  |
|-----------|-----------|---------------|---------------------|--------------------|--------------|--------------|--------------------------|----------------------------|--------------------------|----------------------------|---|--------------------------------------|---------------------------------|----------------------|-------------------|----------------------|-------------------|--|
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | (pCi/g, mg/kg)                  |                      |                   |                      | (pCi/g, mg/kg)    |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | COC                             | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Chromium (total)                | /                    | /                 | 10.8                 | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Cobalt                          | /                    | /                 | 7.8                  | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Copper                          | /                    | /                 | 13.2                 | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Fluoride                        | /                    | /                 | 2.0                  | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Lead                            | /                    | /                 | 24.6                 | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Manganese                       | /                    | /                 | 302.5                | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Mercury                         | /                    | /                 | 0.0                  | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Nickel                          | /                    | /                 | 11.6                 | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Nitrate as Nitrogen             | /                    | /                 | 2.3                  | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Nitrate and Nitrite as Nitrogen | /                    | /                 | 2.0                  | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Sulfate                         | /                    | /                 | 10.0                 | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Vanadium                        | /                    | /                 | 53.5                 | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Zinc                            | /                    | /                 | 46.6                 | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Aroclor-1260                    | /                    | /                 | 0.0                  | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | TPH - diesel range              | /                    | /                 | 13.0                 | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | TPH - diesel range EXT          | /                    | /                 | 50.0                 | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Benzo(a)anthracene              | 31.00                | /                 | /                    | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Benzo(a)pyrene                  | 0.03                 | /                 | /                    | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Benzo(b)fluoranthene            | 0.05                 | /                 | /                    | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Benzo(ghi)perylene              | 0.03                 | /                 | /                    | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Bis(2-ethylhexyl)phthalate      | 0.20                 | /                 | /                    | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Fluoranthene                    | 0.06                 | /                 | /                    | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Pyrene                          | 0.05                 | /                 | /                    | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Acetone                         | 0.01                 | /                 | /                    | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Excavation Focus Samples        |                      |                   |                      |                   |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Cesium-137                      | 0.50                 | /                 | /                    | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Uranium-233/234                 | 0.08                 | /                 | /                    | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Antimony                        | 0.46                 | /                 | /                    | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Arsenic                         | 2.80                 | /                 | /                    | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Barium                          | 61.00                | /                 | /                    | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Beryllium                       | 0.45                 | /                 | /                    | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Cadmium                         | 0.05                 | /                 | /                    | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Chromium (total)                | 11.00                | /                 | /                    | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Cobalt                          | 7.00                 | /                 | /                    | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Copper                          | 13.00                | /                 | /                    | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Manganese                       | 280.00               | /                 | /                    | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Mercury                         | 0.03                 | /                 | /                    | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Nickel                          | 11.00                | /                 | /                    | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Vanadium                        | 50.00                | /                 | /                    | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Zinc                            | 40.00                | /                 | /                    | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Nitrate as Nitrogen             | 2.10                 | /                 | /                    | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Nitrate and Nitrite as Nitrogen | 1.80                 | /                 | /                    | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Sulfate                         | 13.00                | /                 | /                    | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | TPH - diesel range              | 5.00                 | /                 | /                    | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | TPH - diesel range EXT          | 8.50                 | /                 | /                    | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Aroclor-1260                    | 0.01                 | /                 | /                    | /                 |  |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code    | Site Type | Operable Unit | Site Dimensions (m)  | Dates of Operation | Site History  | Class Status   | Decision/Closeout Report        | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration |                                 |                      |                    |                    |   |
|--------------|-----------|---------------|--|--------------------|---|----------------|---------------------------------|----------------------------|--------------------------|----------------------------|---|--------------------------------------|-----------------------|---------------------------------|----------------------|--------------------|--------------------|---|
|              |           |               |  |                    |   |                |                                 |                            |                          |                            |   |                                      | (pCi/g, mg/kg)        |                                 | 95% UCL              |                    |                    |   |
|              |           |               |  |                    |   |                |                                 |                            |                          |                            |   |                                      | Shallow <sup>a</sup>  | Deep <sup>b</sup>               | Shallow <sup>a</sup> | Deep <sup>b</sup>  |                    |   |
|              |           |               |  |                    |   |                |                                 |                            |                          |                            |   |                                      | COC                   |                                 |                      |                    |                    |   |
|              |           |               |  |                    |   |                |                                 |                            |                          |                            |   |                                      |                       | Bis(2-ethylhexyl)phthalat       | 0.12                 | /                  | /                  | / |
|              |           |               |  |                    |   |                |                                 |                            |                          |                            |   |                                      |                       | South Area Focus Samples        |                      |                    |                    |   |
|              |           |               |  |                    |   |                |                                 |                            |                          |                            |   |                                      |                       | Cesium-137                      | 7.63                 | /                  | /                  | / |
|              |           |               |  |                    |   |                |                                 |                            |                          |                            |   |                                      |                       | Uranium-233/234                 | 0.20                 | /                  | /                  | / |
|              |           |               |  |                    |   |                |                                 |                            |                          |                            |   |                                      |                       | Uranium-238                     | 0.26                 | /                  | /                  | / |
|              |           |               |  |                    |   |                |                                 |                            |                          |                            |   |                                      |                       | Antimony                        | 0.49                 | /                  | /                  | / |
|              |           |               |  |                    |   |                |                                 |                            |                          |                            |   |                                      |                       | Arsenic                         | 2.70                 | /                  | /                  | / |
|              |           |               |  |                    |   |                |                                 |                            |                          |                            |   |                                      |                       | Barium                          | 77.90                | /                  | /                  | / |
|              |           |               |  |                    |   |                |                                 |                            |                          |                            |   |                                      |                       | Beryllium                       | 0.12                 | /                  | /                  | / |
|              |           |               |  |                    |   |                |                                 |                            |                          |                            |   |                                      |                       | Boron                           | 2.70                 | /                  | /                  | / |
|              |           |               |  |                    |   |                |                                 |                            |                          |                            |   |                                      |                       | Cadmium                         | 0.17                 | /                  | /                  | / |
|              |           |               |  |                    |   |                |                                 |                            |                          |                            |   |                                      |                       | Chromium (total)                | 10.10                | /                  | /                  | / |
|              |           |               |  |                    |   |                |                                 |                            |                          |                            |   |                                      |                       | Cobalt                          | 8.00                 | /                  | /                  | / |
|              |           |               |  |                    |   |                |                                 |                            |                          |                            |   |                                      |                       | Copper                          | 15.30                | /                  | /                  | / |
|              |           |               |  |                    |   |                |                                 |                            |                          |                            |   |                                      |                       | Hexavalent chromium             | 0.15                 | /                  | /                  | / |
|              |           |               |  |                    |   |                |                                 |                            |                          |                            |   |                                      |                       | Lead                            | 35.00                | /                  | /                  | / |
|              |           |               |  |                    |   |                |                                 |                            |                          |                            |   |                                      |                       | Manganese                       | 301.00               | /                  | /                  | / |
|              |           |               |  |                    |   |                |                                 |                            |                          |                            |   |                                      |                       | Mercury                         | 0.03                 | /                  | /                  | / |
|              |           |               |  |                    |   |                |                                 |                            |                          |                            |   |                                      |                       | Molybdenum                      | 0.37                 | /                  | /                  | / |
|              |           |               |  |                    |   |                |                                 |                            |                          |                            |   |                                      |                       | Nickel                          | 9.90                 | /                  | /                  | / |
|              |           |               |  |                    |   |                |                                 |                            |                          |                            |   |                                      |                       | Selenium                        | 1.20                 | /                  | /                  | / |
|              |           |               |  |                    |   |                |                                 |                            |                          |                            |   |                                      |                       | Vanadium                        | 58.70                | /                  | /                  | / |
|              |           |               |  |                    |   |                |                                 |                            |                          |                            |   |                                      |                       | Zinc                            | 55.20                | /                  | /                  | / |
|              |           |               |  |                    |   |                |                                 |                            |                          |                            |   |                                      |                       | Nitrate as Nitrogen             | 5.00                 | /                  | /                  | / |
|              |           |               |  |                    |   |                |                                 |                            |                          |                            |   |                                      |                       | Nitrate and Nitrite as Nitrogen | 5.30                 | /                  | /                  | / |
|              |           |               |  |                    |   |                |                                 |                            |                          |                            |   |                                      |                       | Sulfate                         | 3.30                 | /                  | /                  | / |
|              |           |               |  |                    |   |                |                                 |                            |                          |                            |   |                                      |                       | TPH - diesel range              | 17.00                | /                  | /                  | / |
|              |           |               |  |                    |   |                |                                 |                            |                          |                            |   |                                      |                       | TPH - diesel range EXT          | 46.00                | /                  | /                  | / |
|              |           |               |  |                    |   |                |                                 |                            |                          |                            |   |                                      |                       | Aroclor-1254                    | 0.10                 | /                  | /                  | / |
|              |           |               |  |                    |   |                |                                 |                            |                          |                            |   |                                      |                       | Aroclor-1260                    | 0.18                 | /                  | /                  | / |
|              |           |               |  |                    |   |                |                                 |                            |                          |                            |   |                                      |                       | Methylene chloride              | 0.00                 | /                  | /                  | / |
|              |           |               |  |                    |   |                |                                 |                            |                          |                            |   |                                      |                       | Benzo(a)anthracene              | 0.03                 | /                  | /                  | / |
|              |           |               |  |                    |   |                |                                 |                            |                          |                            |   |                                      |                       | Benzo(a)pyrene                  | 0.03                 | /                  | /                  | / |
|              |           |               |  |                    |   |                |                                 |                            |                          |                            |   |                                      |                       | Benzo(b)fluoranthene            | 0.05                 | /                  | /                  | / |
|              |           |               |  |                    |   |                |                                 |                            |                          |                            |   |                                      |                       | Benzo(ghi)perylene              | 0.03                 | /                  | /                  | / |
|              |           |               |  |                    |   |                |                                 |                            |                          |                            |   |                                      |                       | Bis(2-ethylhexyl)phthalate      | 0.09                 | /                  | /                  | / |
|              |           |               |  |                    |   |                |                                 |                            |                          |                            |   |                                      |                       | Chrysene                        | 0.05                 | /                  | /                  | / |
|              |           |               |  |                    |   |                |                                 |                            |                          |                            |   |                                      |                       | Fluoranthene                    | 0.05                 | /                  | /                  | / |
|              |           |               |  |                    |   |                |                                 |                            |                          |                            |   |                                      |                       | Phenanthrene                    | 0.03                 | /                  | /                  | / |
|              |           |               |  |                    |   |                |                                 |                            |                          |                            |   |                                      |                       | Pyrene                          | 0.05                 | /                  | /                  | / |
| 116-D-9      | Crib      | 100-DR-1      | 3 x 3 x 3 (Crib)<br>91.4 m long x 10.2 cm dia. influent pipe | 1960-1967          | Site was the 117-D seal pit crib. Received 420,000 L (110,952 gal) of process effluent drainage from the confinement System 117 Building seal pits. | Interim Closed | WSRF 2000-132<br>CVP-2000-00012 | Oct. 29, 1999              | Aug. 11, 2000            | Jan. 5 and Sept. 12, 2000  | 7.3   | 5.5                                  | Strontium-90          | 0.556 J                         | /                    | 0.306              | /                  |   |
|              |           |               |  |                    |   |                |                                 |                            |                          |                            |   |                                      | Uranium-238           | 0.662 J                         | /                    | 0.507              | /                  |   |
|              |           |               |  |                    |   |                |                                 |                            |                          |                            |   |                                      | Hexavalent Chromium   | 0.49 U                          | /                    | 0.49               | /                  |   |
| 116-DR-1 & 2 | Trench    | 100-DR-1      | 137 x 4.5 x 6.0 deep, Depth is from technical baseline       | 1950-1967          | Sites consisted of two trenches that were later joined to form a single trench. Received effluent from the 116-                                     | Interim Closed | WSRF 2000-068<br>CVP-2000-00002 | Nov. 25 1996               | Oct. 21, 1999            | Nov. 30 to Dec. 17, 1999   | 82,768  | 5                                    | Americium-241         | 0.94 U                          | 1.30 U               | 0.32 <sup>c</sup>  | 0.682 <sup>c</sup> |   |
|              |           |               |  |                    |   |                |                                 |                            |                          |                            |   |                                      | Cobalt-60             | 0.14 U                          | 3.52                 | 0.05 <sup>c</sup>  | 1.86 <sup>c</sup>  |   |
|              |           |               |  |                    |   |                |                                 |                            |                          |                            |   |                                      | Cesium-137            | 1.24                            | 110                  | 0.305 <sup>c</sup> | 69.3 <sup>c</sup>  |   |



Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code | Site Type | Operable Unit | Site Dimensions (m)            | Dates of Operation      | Site History   | Class Status   | Decision/Closeout Report     | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration    |                      |                   |                      | 95% UCL             |                      |                   |                      |                   |
|-----------|-----------|---------------|--------------------------------|-------------------------|--|----------------|------------------------------|----------------------------|--------------------------|----------------------------|---|--------------------------------------|--------------------------|----------------------|-------------------|----------------------|---------------------|----------------------|-------------------|----------------------|-------------------|
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | COC                      | (pCi/g, mg/kg)       |                   | (pCi/g, mg/kg)       |                     | (pCi/g, mg/kg)       |                   | (pCi/g, mg/kg)       |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      |                          | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup>   | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Manganese                | 338 L                | 311               | 325                  | 362                 | 336                  | 306               | 293                  |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Mercury                  | 0.067                | 0.031             | 0.045                | 0.15                | 0.045                | 0.045             | 0.011                |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Molybdenum               | 0.54 B               | /                 | /                    | /                   | /                    | /                 | /                    |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Nickel                   | 20.1                 | 12.7              | 15.9                 | 12.2 LM             | 11.3                 | 12.5              | 11.7                 |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Vanadium                 | 67.2                 | 56.2              | 56.3                 | 63.5                | 59.6                 | 60.2              | 51.5                 |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Zinc                     | 54.6                 | 44.6              | 49.4                 | 169 L               | 60.4                 | 41.7              | 39.3                 |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | benzo(a)anthracene       | 0.39                 | 0.12              | 0.056                | 0.2 J               | /                    | /                 | /                    |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | benzo(a)pyrene           | 0.150 J              | 0.05              | /                    | 0.13 J              | /                    | /                 | /                    |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | benzo(b)fluoranthene     | 0.450 K              | 0.146             | 0.07                 | 0.230 JK            | 0.089                | /                 | /                    |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | benzo(ghi)perylene       | 0.078 J              | /                 | /                    | 0.051 J             | /                    | /                 | /                    |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Chrysene                 | 0.47                 | 0.146             | 0.062                | 0.250 J             | 0.081                | /                 | /                    |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Fluoranthene             | 0.71                 | 0.217             | 0.094                | 0.180 J             | 0.074                | /                 | /                    |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Indeno(1, 2, 3-cd)pyrene | 0.072 J              | /                 | /                    | 0.045 J             | /                    | /                 | /                    |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Phenanthrene             | 0.08                 | 0.037             | /                    | 0.038 J             | /                    | /                 | /                    |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Pyrene                   | 0.69                 | 1.11              | 0.1                  | 0.220 J             | 0.078                | /                 | /                    |                   |
| 116-DR-6  | Trench    | 100-DR-2      | 15 x 3 x 3                     | 1953-1965               | Received 7,000,000 L (1,849,204 gal) of 105-DR Reactor cooling water and decontamination fluids during upgrade of the reactor emergency shutdown system.   | Interim Closed | WSRF 2000-104 CVP-2000-00014 | Nov. 2, 1999               | Not documented in CVP    | Feb. 2-3, 2000             | 2,140   | 4.8                                  | Cobalt-60                | 0.07 U               | 0.308             | 0.0546 <sup>c</sup>  | 0.277 <sup>c</sup>  |                      |                   |                      |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Cesium-137               | 0.091 U              | 6.51              | 0.0795 <sup>c</sup>  | 5.74 <sup>c</sup>   |                      |                   |                      |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Europium-152             | 0.482                | 14.4              | 0.341 <sup>c</sup>   | 12.8 <sup>c</sup>   |                      |                   |                      |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Europium-154             | 0.24 U               | 1.4               | 0.197 <sup>c</sup>   | 1.26 <sup>c</sup>   |                      |                   |                      |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Strontium-90             | 0.425                | 1.12              | 0.265 <sup>c</sup>   | 0.265 <sup>c</sup>  |                      |                   |                      |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Uranium-238              | 0.617 J              | 0.855 J           | 0.447 <sup>c</sup>   | 0.447 <sup>c</sup>  |                      |                   |                      |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Hexavalent Chromium      | 0.44 U               | 0.45 U            | 0.44 U <sup>c</sup>  | 0.45 U <sup>c</sup> |                      |                   |                      |                   |
| 116-DR-7  | Crib      | 100-DR-2      | 1.5 x 1.5 x 3                  | 1953                    | This crib was used to receive the liquid potassium borate solution that was drained from the 3X system before the ball 3X upgrade. The crib is also described as a tank of unknown size buried under 1.8 m (6 ft) of soil. Received 4,000 L (1,056 gal) of effluent. | Interim Closed | WSRF 2000-004 CVP-2000-00019 | Dec. 7, 1999               | Dec. 8, 1999             | Jan. 21, 2000              | 59  | 4.8                                  | Cobalt-60                | 0.055                | /                 | 0.0629               | /                   |                      |                   |                      |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Cesium-137               | 0.073                | /                 | 0.0716               | /                   |                      |                   |                      |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Europium-152             | 0.218                | /                 | 0.18                 | /                   |                      |                   |                      |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Europium-154             | 0.15                 | /                 | 0.187                | /                   |                      |                   |                      |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Strontium-90             | 0.141                | /                 | 0.178                | /                   |                      |                   |                      |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Uranium-233/234          | 0.699                | /                 | 0.564                | /                   |                      |                   |                      |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Uranium-238              | 0.547                | /                 | 0.454                | /                   |                      |                   |                      |                   |
| 116-DR-8  | Crib      | 100-DR-2      | 3.0 x 3.0 and 3.3 to 4.6 m bgs | 1960-1964 and 1972-1986 | The 117-DR-Seal Pit Crib is documented in WIDS as two separate sites. The first was 122-DR-1:6 and the second is 116-DR-8. This site is the radioactive constituents that are remaining at the 117-DR Seal Pit Crib.   | Interim Closed | WSRF/RSVP-2009-037           | Jun. 18, 2008              | Jul. 24, 2008            | May 19 to 26, 2009         | 1,991   | 6.8                                  | Excavation               |                      | N. Stockpile      |                      | S. Stockpile        |                      |                   |                      |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Maximum                  | 95% UCL              | Maximum           | 95% UCL              | Maximum             | 95% UCL              |                   |                      |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Cesium-137               | 0.148 J              | 0.0431            | /                    | /                   | 0.106                | 0.0283            |                      |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Plutonium-238            | /                    | /                 | 0.0909               | 0.0206              | /                    | /                 |                      |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Strontium-90             | 0.451                | 0.306             | 0.297                | 1.66                | 0.246                | 0.0937            |                      |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Uranium-234              | 0.247                | 0.173             | 0.352                | 0.271               | 0.187                | 0.151             |                      |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Uranium-238              | 0.245                | 0.194             | 0.355                | 0.296               | 0.203                | 0.161             |                      |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Antimony                 | 0.68 B               | 0.49              | 0.61 B               | 0.53                | 0.91 B               | 0.74              |                      |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Arsenic                  | 3.3                  | 2.5               | 2.4                  | 2.3                 | 3.1                  | 2.5               |                      |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Barium                   | 77                   | 66                | 57                   | 52                  | 73                   | 64                |                      |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Beryllium                | 2                    | 0.99              | 0.57                 | 0.55                | 2.1                  | 1.9               |                      |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Boron                    | 2.2                  | /                 | /                    | /                   | 1.8                  | /                 |                      |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Cadmium                  | /                    | /                 | /                    | /                   | 0.078                | /                 |                      |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Chromium Total           | 10                   | 8.4               | 8.1                  | 7.3                 | 11                   | 9.4               |                      |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Cobalt                   | 10                   | 8.8               | 9.0 L                | 8.7                 | 9.7 L                | 9.2               |                      |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Copper                   | 16                   | 14                | 15 L                 | 14                  | 14                   | 13                |                      |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Hexavalent Chromium      | 0.192                | /                 | 0.175                | /                   | 0.199                | /                 |                      |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Lead                     | 5.5                  | 4.3               | 4.4                  | 3.8                 | 6.6                  | 4.8               |                      |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Lithium                  | 150                  | 38                | 6.5                  | 6.1                 | 46                   | 34                |                      |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Manganese                | 340 J                | 305               | 340 L                | 323                 | 380 L                | 348               |                      |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Mercury                  | 0.0095               | /                 | /                    | /                   | /                    | /                 |                      |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Molybdenum               | 0.64                 | /                 | /                    | /                   | 0.37                 | /                 |                      |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Nickel                   | 14                   | 12                | 12 L                 | 11                  | 13 L                 | 12                |                      |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Silver                   | /                    | /                 | /                    | /                   | 2.2                  | /                 |                      |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Vanadium                 | 71                   | 64                | 68                   | 65                  | 77                   | 69                |                      |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Zinc                     | 55                   | 50                | 49 L                 | 48                  | 140 L                | 68                |                      |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Acetone                  | 0.038                | 0.022             | 0.052                | 0.05                | 13 J                 | 0.0089            |                      |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | 1,2-Dichlorobenzene      | 0.026                | /                 | /                    | /                   | /                    | /                 |                      |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | 2,4,5-Trichlorophenol    | 0.01                 | /                 | /                    | /                   | /                    | /                 |                      |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | 2,4-Dichlorophenol       | 0.011                | /                 | /                    | /                   | /                    | /                 |                      |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | 2-Cholomaphthalene       | 0.011                | /                 | /                    | /                   | /                    | /                 |                      |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | Acenaphthene             | 0.012                | /                 | /                    | /                   | /                    | /                 |                      |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | benzo(a)anthracene       | 0.042                | /                 | 0.077                | /                   | /                    | /                 |                      |                   |
|           |           |               |                                |                         |  |                |                              |                            |                          |                            |   |                                      | benzo(a)pyrene           | 0.028                | /                 | 0.046                | /                   | /                    | /                 |                      |                   |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code | Site Type       | Operable Unit | Site Dimensions (m) | Dates of Operation | Site History  | Class Status   | Decision/Closeout Report     | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration    |                      |                   |                      | 95% UCL           |       |   |
|-----------|-----------------|---------------|---------------------|--------------------|---|----------------|------------------------------|----------------------------|--------------------------|----------------------------|---|--------------------------------------|--------------------------|----------------------|-------------------|----------------------|-------------------|-------|---|
|           |                 |               |                     |                    |   |                |                              |                            |                          |                            |   |                                      | (pCi/g, mg/kg)           |                      |                   |                      | (pCi/g, mg/kg)    |       |   |
|           |                 |               |                     |                    |   |                |                              |                            |                          |                            |   |                                      | COC                      | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |       |   |
|           |                 |               |                     |                    |   |                |                              |                            |                          |                            |   |                                      | benzo(b)fluoranthene     | 0.034                | /                 | 0.095                | /                 | /     | / |
|           |                 |               |                     |                    |   |                |                              |                            |                          |                            |   |                                      | benzo(ghi)perylene       | 0.027                | /                 | 0.023                | /                 | /     | / |
|           |                 |               |                     |                    |   |                |                              |                            |                          |                            |   |                                      | Chrysene                 | 0.048 J              | 0.028             | 0.11                 | /                 | 0.03  | / |
|           |                 |               |                     |                    |   |                |                              |                            |                          |                            |   |                                      | Dibenz[a,h]anthracene    | 0.025                | /                 | /                    | /                 | /     | / |
|           |                 |               |                     |                    |   |                |                              |                            |                          |                            |   |                                      | Dimethyl phthalate       | 0.033                | /                 | /                    | /                 | /     | / |
|           |                 |               |                     |                    |   |                |                              |                            |                          |                            |   |                                      | Fluoranthene             | /                    | /                 | 0.18                 | /                 | /     | / |
|           |                 |               |                     |                    |   |                |                              |                            |                          |                            |   |                                      | Indeno(1, 2, 3-cd)pyrene | 0.022                | /                 | 0.022                | /                 | /     | / |
|           |                 |               |                     |                    |   |                |                              |                            |                          |                            |   |                                      | Phenanthrene             | /                    | /                 | 0.14                 | /                 | /     | / |
|           |                 |               |                     |                    |   |                |                              |                            |                          |                            |   |                                      | Pyrene                   | 0.02                 | /                 | 0.12                 | /                 | 0.018 | / |
|           |                 |               |                     |                    |   |                |                              |                            |                          |                            |   |                                      | Toluene                  | 0.0011               | /                 | /                    | /                 | /     | / |
| 116-DR-9  | Retention basin | 100-DR-1      | 183 x 83 x 6        | 1950-1967          | Site was an open concrete basin that retained cooling water effluent from the 118-DR-2 (105-DR Reactor) for radioactive decay and thermal cooling before release to the Columbia River. Also received ruptured fuel element waste after 1954. Total radionuclide inventory in the vicinity ranged from 5 to 400 Ci.   | Interim Closed | WSRF 99-046<br>CVP-99-00006  | Oct. 21, 1997              | Dec. 28, 1998            | Feb. 18 and Mar. 11, 1999  | 201,519   | 4.75                                 | Cobalt-60                | 0.056                | 3.54              | 0.041                | 3.21              |       |   |
|           |                 |               |                     |                    |   |                |                              |                            |                          |                            |   |                                      | Cesium-137               | 10                   | 19.5              | 2.84                 | 25.8              |       |   |
|           |                 |               |                     |                    |   |                |                              |                            |                          |                            |   |                                      | Europium-152             | 0.627                | 38.1              | 0.405                | 25.2              |       |   |
|           |                 |               |                     |                    |   |                |                              |                            |                          |                            |   |                                      | Europium-154             | 0.071 J              | 7.12              | 0.0732               | 3.47              |       |   |
|           |                 |               |                     |                    |   |                |                              |                            |                          |                            |   |                                      | Europium-155             | 0.041 U              | 0.21              | 0.0528               | 0.26              |       |   |
|           |                 |               |                     |                    |   |                |                              |                            |                          |                            |   |                                      | Nickel-63                | 4.99 J               | 182               | 3.37                 | 53.2              |       |   |
|           |                 |               |                     |                    |   |                |                              |                            |                          |                            |   |                                      | Plutonium-238            | 0.359                | 0.039 U           | 0.15                 | 0.08              |       |   |
|           |                 |               |                     |                    |   |                |                              |                            |                          |                            |   |                                      | Plutonium-239/240        | 0.724                | 1.08              | 0.304                | 0.32              |       |   |
|           |                 |               |                     |                    |   |                |                              |                            |                          |                            |   |                                      | Strontium-90             | 0.287 J              | 2.23 J            | 0.266                | 2.01              |       |   |
|           |                 |               |                     |                    |   |                |                              |                            |                          |                            |   |                                      | Hexavalent Chromium      | 1.9                  | 0.604             | 1.9                  | 0.55              |       |   |
|           |                 |               |                     |                    |   |                |                              |                            |                          |                            |   |                                      | Aroclor-1242             | 0.035 U              | 0.11              | 0.035                | 0.11              |       |   |
|           |                 |               |                     |                    |   |                |                              |                            |                          |                            |   |                                      | Aroclor-1260             | 0.035 U              | 0.18              | 0.035                | 0.11              |       |   |
| 118-D-1   | Burial Ground   | 100-DR-2      | 137.2 x 114.3 x 6.1 | 1944-1967          | The waste site contains four trenches that trend north and south. This burial ground was used for the disposal of irradiated dummies, thimbles, horizontal control rods, gun barrels, 12 steel drums of irradiated expendable dummies, and other contaminated solid waste. The waste site has the potential to contain spent nuclear fuel elements. The breakdown of other waste items includes 259.2 tons of soft waste, 1.5 tons of desiccant, 19.25 ton of miscellaneous waste, and 0.03 ton of thermo-couple waste. | Interim Closed | CVP-2010-00007 WSRF-2010-056 | Nov-08                     | May-11                   | May-11                     | 42,730 BCM                                      | 6.5                                  | Cesium-137               | /                    | /                 | 0.02                 | 0.03              |       |   |
|           |                 |               |                     |                    |   |                |                              |                            |                          |                            |   |                                      | Techneium-99             | /                    | /                 | 0.48                 |                   |       |   |
|           |                 |               |                     |                    |   |                |                              |                            |                          |                            |   |                                      | Tritium                  | /                    | /                 | 0.38                 | 0.07              |       |   |
|           |                 |               |                     |                    |   |                |                              |                            |                          |                            |   |                                      | Uranium-233/234          | /                    | /                 | 0.79                 | 0.72              |       |   |
|           |                 |               |                     |                    |   |                |                              |                            |                          |                            |   |                                      | Uranium-238              | /                    | /                 | 0.80                 | 0.72              |       |   |
|           |                 |               |                     |                    |   |                |                              |                            |                          |                            |   |                                      | Arsenic                  | /                    | /                 | 2.68                 | 2.47              |       |   |
|           |                 |               |                     |                    |   |                |                              |                            |                          |                            |   |                                      | Barium                   | /                    | /                 | 60.66                | 59.50             |       |   |
|           |                 |               |                     |                    |   |                |                              |                            |                          |                            |   |                                      | Beryllium                | /                    | /                 | 0.23                 | 0.23              |       |   |
|           |                 |               |                     |                    |   |                |                              |                            |                          |                            |   |                                      | Boron                    | 1.7                  | 2.1               | /                    | /                 |       |   |
|           |                 |               |                     |                    |   |                |                              |                            |                          |                            |   |                                      | Cadmium                  | 0.055                | 0.059             | /                    | /                 |       |   |
|           |                 |               |                     |                    |   |                |                              |                            |                          |                            |   |                                      | Chromium (total)         | /                    | /                 | 9.39                 | 7.60              |       |   |
|           |                 |               |                     |                    |   |                |                              |                            |                          |                            |   |                                      | Cobalt                   | /                    | /                 | 7.73                 | 10.31             |       |   |
|           |                 |               |                     |                    |   |                |                              |                            |                          |                            |   |                                      | Copper                   | /                    | /                 | 16.67                | 16.45             |       |   |
|           |                 |               |                     |                    |   |                |                              |                            |                          |                            |   |                                      | Hexavalent chromium      | 0.175                | 0.344             | /                    | /                 |       |   |
|           |                 |               |                     |                    |   |                |                              |                            |                          |                            |   |                                      | Lead                     | /                    | /                 | 3.64                 | 4.42              |       |   |
|           |                 |               |                     |                    |   |                |                              |                            |                          |                            |   |                                      | Manganese                | /                    | /                 | 288.06               | 312.80            |       |   |
|           |                 |               |                     |                    |   |                |                              |                            |                          |                            |   |                                      | Mercury                  | —                    | 0.05              | 0.02                 | /                 |       |   |
|           |                 |               |                     |                    |   |                |                              |                            |                          |                            |   |                                      | Molybdenum               | 0.32                 | 0.38              | /                    | /                 |       |   |
|           |                 |               |                     |                    |   |                |                              |                            |                          |                            |   |                                      | Nickel                   | /                    | /                 | 12.00                | 10.48             |       |   |
|           |                 |               |                     |                    |   |                |                              |                            |                          |                            |   |                                      | Vanadium                 | /                    | /                 | 59.36                | 75.29             |       |   |
|           |                 |               |                     |                    |   |                |                              |                            |                          |                            |   |                                      | Zinc                     | /                    | /                 | 41.51                | 47.87             |       |   |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code | Site Type     | Operable Unit | Site Dimensions<br>(m) | Dates of<br>Operation | Site History   | Class Status   | Decision/<br>Closeout Report    | Remedial<br>Action Start<br>Date | Remedial<br>Action End<br>Date | Verification<br>Sampling Date | Contaminated<br>Waste Volume to<br>ERDF (metric<br>tons) | Maximum<br>Depth of<br>Remedial<br>Action (m) | Maximum Concentration  |                            |                   |                      | 95% UCL           |   |  |  |
|-----------|---------------|---------------|------------------------|-----------------------|--|----------------|---------------------------------|----------------------------------|--------------------------------|-------------------------------|--|---|------------------------|----------------------------|-------------------|----------------------|-------------------|---|--|--|
|           |               |               |                        |                       |  |                |                                 |                                  |                                |                               |  |   | COC                    | (pCi/g, mg/kg)             |                   | (pCi/g, mg/kg)       |                   |   |  |  |
|           |               |               |                        |                       |  |                |                                 |                                  |                                |                               |  |   |                        | Shallow <sup>a</sup>       | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |   |  |  |
|           |               |               |                        |                       |  |                |                                 |                                  |                                |                               |  |   | TPH - diesel range EXT | —                          | 59                | 5.00                 | —                 |   |  |  |
|           |               |               |                        |                       |  |                |                                 |                                  |                                |                               |  |   |                        | Overburden                 |                   |                      |                   |   |  |  |
|           |               |               |                        |                       |  |                |                                 |                                  |                                |                               |  |   |                        | Cesium-137                 | /                 | /                    | 0.04              | / |  |  |
|           |               |               |                        |                       |  |                |                                 |                                  |                                |                               |  |   |                        | Tritium                    | /                 | /                    | 0.02              | / |  |  |
|           |               |               |                        |                       |  |                |                                 |                                  |                                |                               |  |   |                        | Uranium-233/234            | /                 | /                    | 0.70              | / |  |  |
|           |               |               |                        |                       |  |                |                                 |                                  |                                |                               |  |   |                        | Uranium-238                | /                 | /                    | 0.72              | / |  |  |
|           |               |               |                        |                       |  |                |                                 |                                  |                                |                               |  |   |                        | Arsenic                    | /                 | /                    | 2.97              | / |  |  |
|           |               |               |                        |                       |  |                |                                 |                                  |                                |                               |  |   |                        | Barium                     | /                 | /                    | 70.40             | / |  |  |
|           |               |               |                        |                       |  |                |                                 |                                  |                                |                               |  |   |                        | Cadmium                    | /                 | /                    | 0.06              | / |  |  |
|           |               |               |                        |                       |  |                |                                 |                                  |                                |                               |  |   |                        | Chromium (total)           | /                 | /                    | 9.89              | / |  |  |
|           |               |               |                        |                       |  |                |                                 |                                  |                                |                               |  |   |                        | Cobalt                     | /                 | /                    | 7.32              | / |  |  |
|           |               |               |                        |                       |  |                |                                 |                                  |                                |                               |  |   |                        | Copper                     | /                 | /                    | 15.04             | / |  |  |
|           |               |               |                        |                       |  |                |                                 |                                  |                                |                               |  |   |                        | Hexavalent chromium        | /                 | /                    | 0.38              | / |  |  |
|           |               |               |                        |                       |  |                |                                 |                                  |                                |                               |  |   |                        | Lead                       | /                 | /                    | 3.93              | / |  |  |
|           |               |               |                        |                       |  |                |                                 |                                  |                                |                               |  |   |                        | Manganese                  | /                 | /                    | 304.97            | / |  |  |
|           |               |               |                        |                       |  |                |                                 |                                  |                                |                               |  |   |                        | Nickel                     | /                 | /                    | 11.64             | / |  |  |
|           |               |               |                        |                       |  |                |                                 |                                  |                                |                               |  |   |                        | Vanadium                   | /                 | /                    | 50.39             | / |  |  |
|           |               |               |                        |                       |  |                |                                 |                                  |                                |                               |  |   |                        | Zinc                       | /                 | /                    | 38.40             | / |  |  |
|           |               |               |                        |                       |  |                |                                 |                                  |                                |                               |  |   |                        | Bis(2-ethylhexyl)phthalate | /                 | /                    | 0.22              | / |  |  |
|           |               |               |                        |                       |  |                |                                 |                                  |                                |                               |  |   |                        | Dimethyl phthalate         | /                 | /                    | 0.05              | / |  |  |
|           |               |               |                        |                       |  |                |                                 |                                  |                                |                               |  |   |                        | Boron                      | 1.40              | /                    | /                 | / |  |  |
|           |               |               |                        |                       |  |                |                                 |                                  |                                |                               |  |   |                        | Mercury                    | 0.01              | /                    | /                 | / |  |  |
|           |               |               |                        |                       |  |                |                                 |                                  |                                |                               |  |   |                        | Molybdenum                 | 0.76              | /                    | /                 | / |  |  |
|           |               |               |                        |                       |  |                |                                 |                                  |                                |                               |  |   |                        | TPH - diesel range EXT     | 1.30              | /                    | /                 | / |  |  |
|           |               |               |                        |                       |  |                |                                 |                                  |                                |                               |  |   |                        | Benzo(b)fluoranthene       | 0.12              | /                    | /                 | / |  |  |
|           |               |               |                        |                       |  |                |                                 |                                  |                                |                               |  |   |                        | Butylbenzylphthalate       | 0.11              | /                    | /                 | / |  |  |
| 118-D-2:1 | Burial Ground | 100-DR-2      | 304.8 x 109.7 x 6.1    | 1949-1970             | This site contained several trenches that trend east to west and five pairs of disposal pits. The site was the primary burial ground for the disposal of 105-D Reactor operations waste, including irradiated dummies, splines, rods, thimbles, and gun barrels. The metallic waste disposed in the waste site consists of 16,329 kg (35,924 lb) of aluminum tubes, 36,287 kg (79,831 lb) of aluminum spacers, 89,040 kg (195,888 lb) of lead poison slugs, 3,719 kg (8,182 lb) of cadmium poison slugs, 54 kg (119 lb) of graphite, 14 kg (31 lb) of desiccant, 5,987 kg (2,721 lb) of aluminum poison slugs, 816 kg (371 lb) of poison splines, 58,966 kg (26,803 lb) of lead, and 16,329 kg (7,422 lb) of miscellaneous metallic waste. Large volumes of water were | Interim Closed | CVP-2012-0002<br>WSRF-2012-015  | Feb-09                           | May-11                         | Feb-12                        | 45,752 BCM   | 7.5   | N/A                    | N/A                        | N/A               | N/A                  | N/A               |   |  |  |
| 118-D-2:2 | Burial Ground | 100-DR-2      | 5661 m <sup>2</sup>    | 2010-2011             | The site consists of the northern portion of the 118-D-2: burial ground. Geophysical surveys of the area reveal no buried wastes   | Interim Closed | CVP-2012-00003<br>WSRF-2012-014 | Jun-11                           | Apr-12                         | Apr-12                        | 415 BCM  | 0.91  | N/A                    | N/A                        | N/A               | N/A                  | N/A               |   |  |  |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code | Site Type     | Operable Unit | Site Dimensions (m)                                 | Dates of Operation                  | Site History  | Class Status   | Decision/Closeout Report        | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m)   | COC | Maximum Concentration          |                   |                         |                   | 95% UCL |            |
|-----------|---------------|---------------|---|-------------------------------------|---|----------------|---------------------------------|----------------------------|--------------------------|----------------------------|---|--|-----|--------------------------------|-------------------|-------------------------|-------------------|---------|------------|
|           |               |               |   |                                     |   |                |                                 |                            |                          |                            |   |  |     | (pCi/g, mg/kg)                 |                   | (pCi/g, mg/kg)          |                   |         |            |
|           |               |               |   |                                     |   |                |                                 |                            |                          |                            |   |  |     | Shallow <sup>a</sup>           | Deep <sup>b</sup> | Shallow <sup>a</sup>    | Deep <sup>b</sup> |         |            |
| 118-D-3:1 | Burial Ground | 100-DR-2      | 304.8 x 79.2 x 6.1 (includes both 118-D-3 subsites) | 1956-1973                           | The 118-D-3:1 subsite consists of multiple trenches (6-8) in the 100-D Burial Ground No. 3. The burial ground was the primary disposal site for 105-DR Reactor operations waste, including irradiated dummies, splines, rods, thimbles, and gun barrels. The burial ground has the potential to contain spent nuclear fuel elements. The site also contained a burn pit used to dispose of low-level radioactive combustible materials. The eastern boundary was used for the disposal of 100-N solid wastes. The waste site received 23.8 tons of lead, 97 tons of aluminum, 137.7 tons of | Accepted       | Not Documented                  | N/A                        | N/A                      | N/A                        | N/A   | N/A  | N/A | N/A                            | N/A               | N/A                     | N/A               | N/A     | N/A        |
| 118-D-3:2 | Burial Ground | 100-DR-2      | 304.8 x 79.2 x 6.1 (includes both 118-D-3 subsites) | 1956-1973                           | The 118-D-3:2 subsite includes two areas. The fuel characterization area was used to investigate suspect spent nuclear fuel and confirm presence of spent nuclear fuel pieces. The anomaly characterization area was used to characterize anomalous materials found at 100-D.   | Accepted       | Not Documented                  | N/A                        | N/A                      | N/A                        | N/A   | N/A  | N/A | N/A                            | N/A               | N/A                     | N/A               | N/A     | N/A        |
| 118-D-4   | Burial Ground | 100-DR-2      | 182.9 x 61.0  | 1953-1967 (CVP)<br>1956-1967 (WIDS) | The construction burial ground contains several non-uniform trenches that received contaminated material generated during Project CG-558. The contaminated material consists mainly of reactor components and hardware from the 105-D Reactor. based on the historical photograph 3738-Photo, this site likely began operations around 1956 instead of 1953.  | Interim Closed | WSRF 2008-055<br>CVP-2009-00001 | Oct. 10, 2007              | Mar. 20, 2008            | Dec. 9-11, 2008            | 7,067 BCM                                       | 6.5 (all treated as shallow zone)  |     | Excavation                     |                   |                         | Overburden        |         |            |
|           |               |               |   |                                     |   |                |                                 |                            |                          |                            |   |  |     | Maximum                        | 95% UCL           | Focused Sample Max only | Maximum           | 95% UCL |            |
|           |               |               |   |                                     |   |                |                                 |                            |                          |                            |   |  |     | Cesium-137                     | 0.379             | 0.101                   | 0.15              | 0.045   | 0.022      |
|           |               |               |   |                                     |   |                |                                 |                            |                          |                            |   |  |     | Europium-152                   | 0.329             | 0.104                   | 0.45              | /       | /          |
|           |               |               |   |                                     |   |                |                                 |                            |                          |                            |   |  |     | Nickel-63                      | 4.01              | 1.48                    | /                 | /       | /          |
|           |               |               |   |                                     |   |                |                                 |                            |                          |                            |   |  |     | Plutonium-239/240              | 0.314             | 0.08                    | /                 | /       | /          |
|           |               |               |   |                                     |   |                |                                 |                            |                          |                            |   |  |     | Strontium-90                   | 1.81              | 0.46                    | /                 | /       | /          |
|           |               |               |   |                                     |   |                |                                 |                            |                          |                            |   |  |     | Uranium-233/234                | 0.76              | 0.566                   | 0.496             | 0.823   | 0.709      |
|           |               |               |   |                                     |   |                |                                 |                            |                          |                            |   |  |     | Uranium-238                    | 0.987             | 0.67                    | 0.746             | 0.721   | 0.597      |
|           |               |               |   |                                     |   |                |                                 |                            |                          |                            |   |  |     | Antimony                       | 7                 | 2                       | 0.9               | /       | /          |
|           |               |               |   |                                     |   |                |                                 |                            |                          |                            |   |  |     | Arsenic                        | 4.5               | 3.2                     | 3.3               | 3.3     | 3.12       |
|           |               |               |   |                                     |   |                |                                 |                            |                          |                            |   |  |     | Barium                         | 85.4              | 70.3                    | 77.3              | 85.8    | 74.8       |
|           |               |               |   |                                     |   |                |                                 |                            |                          |                            |   |  |     | Beryllium                      | 0.3               | 0.2                     | 0.2               | 0.3     | 0.3        |
|           |               |               |   |                                     |   |                |                                 |                            |                          |                            |   |  |     | Boron                          | 1.6 J             | 1.2                     | 1.3               | 1.8 B   | 1.6        |
|           |               |               |   |                                     |   |                |                                 |                            |                          |                            |   |  |     | Cadmium                        | 1                 | 0.4                     | 4.66              | 0.2     | 0.2        |
|           |               |               |   |                                     |   |                |                                 |                            |                          |                            |   |  |     | Chromium Total                 | 18.6              | 13.5                    | 48.1              | 16.5    | 12.7       |
|           |               |               |   |                                     |   |                |                                 |                            |                          |                            |   |  |     | Cobalt                         | 8.7               | 8.1                     | 11                | 8.7     | 7.4        |
|           |               |               |   |                                     |   |                |                                 |                            |                          |                            |   |  |     | Copper                         | 19.1              | 15.4                    | 15.5              | 15.6    | 14.9       |
|           |               |               |   |                                     |   |                |                                 |                            |                          |                            |   |  |     | Hexavalent Chromium            | /                 | /                       | 0.17              | /       | /          |
|           |               |               |   |                                     |   |                |                                 |                            |                          |                            |   |  |     | Lead                           | 19.8              | 8.3                     | 3.7               | 4.5     | 3.7        |
|           |               |               |   |                                     |   |                |                                 |                            |                          |                            |   |  |     | Manganese                      | 352               | 341                     | 399               | 422     | 341        |
|           |               |               |   |                                     |   |                |                                 |                            |                          |                            |   |  |     | Mercury                        | 0.0866            | /                       | 0.0583            | 0.0399  | /          |
|           |               |               |   |                                     |   |                |                                 |                            |                          |                            |   |  |     | Molybdenum                     | 0.8 B             | 0.5                     | 0.5               | 0.5 B   | 0.5        |
|           |               |               |   |                                     |   |                |                                 |                            |                          |                            |   |  |     | Nickel                         | 15.6              | 12.6                    | 27.3              | 16.7    | 13         |
|           |               |               |   |                                     |   |                |                                 |                            |                          |                            |   |  |     | Vanadium                       | 88.8              | 80.9                    | 92.4              | 69.9    | 66.6       |
|           |               |               |   |                                     |   |                |                                 |                            |                          |                            |   |  |     | Zinc                           | 88.8              | 58.1                    | 59.6              | 49.8    | 47.6       |
|           |               |               |   |                                     |   |                |                                 |                            |                          |                            |   |  |     | TPH - diesel range             | /                 | /                       | 5.46              | /       | /          |
|           |               |               |   |                                     |   |                |                                 |                            |                          |                            |   |  |     | TPH - motor oil (high boiling) | /                 | /                       | 10.5              | /       | /          |
| 118-D-5   | Burial Ground | 100-DR-2      | 12.2 x 3.0 x 3.0                                    | 1954                                | This waste site is referred to as the ball 3X Burial Ground. The site consists of two burial trenches located parallel to each other. The burial ground received vertical safety rod thimbles from the 105-DR Reactor during the ball 3X Project in 1954. Sludge from the 105-DR Storage basin has been buried at the west end of the waste site. There is disagreement about the exact location and size of these trenches.  | Interim Closed | WSRF 2009-020<br>CVP-2009-0008  | Jun. 2, 2008               | Aug. 12, 2008            | Apr. 28, 2009              | 314 BCM   | 2m in the easternmost portion, 7m in the westernmost portion of the excavation (shallow and deep zone considered one decision) |     | Excavation                     |                   |                         | Overburden        |         |            |
|           |               |               |   |                                     |   |                |                                 |                            |                          |                            |   |  |     | Maximum                        | 95% UCL           | Focused Sample Max only | Maximum           | 95% UCL |            |
|           |               |               |   |                                     |   |                |                                 |                            |                          |                            |   |  |     | Cobalt-60                      | /                 | /                       | 1.1 (<BG)         | /       | /          |
|           |               |               |   |                                     |   |                |                                 |                            |                          |                            |   |  |     | Nickel-63                      | 20.2              | 5.13                    | 113 (<BG)         | /       | /          |
|           |               |               |   |                                     |   |                |                                 |                            |                          |                            |   |  |     | Strontium-90                   | 0.472             | 0.172                   | /                 | 0.208   | 0.145      |
|           |               |               |   |                                     |   |                |                                 |                            |                          |                            |   |  |     | Tritium (H-3)                  | /                 | /                       | 0.15 (<BG)        | /       | /          |
|           |               |               |   |                                     |   |                |                                 |                            |                          |                            |   |  |     | Antimony                       | 0.54 B            | 0.39 (<BG)              | 0.44 (<BG)        | 0.79 B  | 0.59 (<BG) |
|           |               |               |   |                                     |   |                |                                 |                            |                          |                            |   |  |     | Arsenic                        | 3.2               | 2.7 (<BG)               | 2.5 (<BG)         | 2.9     | 2.8 (<BG)  |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code | Site Type | Operable Unit | Site Dimensions<br>(m)                                   | Dates of<br>Operation | Site History  | Class Status   | Decision/<br>Closeout Report    | Remedial<br>Action Start<br>Date | Remedial<br>Action End<br>Date | Verification<br>Sampling Date | Contaminated<br>Waste Volume to<br>ERDF (metric<br>tons) | Maximum<br>Depth of<br>Remedial<br>Action (m) | Maximum Concentration |   |                   |                      |                   | 95% UCL              |                   |  |  |
|-----------|-----------|---------------|--|-----------------------|---|----------------|---------------------------------|----------------------------------|--------------------------------|-------------------------------|--|---|-----------------------|---|-------------------|----------------------|-------------------|----------------------|-------------------|--|--|
|           |           |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | COC                   | (pCi/g, mg/kg)  |                   | (pCi/g, mg/kg)       |                   | (pCi/g, mg/kg)       |                   |  |  |
|           |           |               |  |                       |   |                |                                 |                                  |                                |                               |  |   |                       | Shallow <sup>a</sup>  | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |  |  |
|           |           |               |  |                       |   |                |                                 |                                  |                                |                               |  | unit)   | Barium                | 74  | 61 (<BG)          | 53 (<BG)             | 59 L              | 57 (<BG)             |                   |  |  |
|           |           |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Beryllium             | 0.73  | 0.67 (<BG)        | 0.93 (<BG)           | 0.7               | 0.66 (<BG)           |                   |  |  |
|           |           |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Boron                 | 1.5   | 1.5               | /                    | /                 | /                    |                   |  |  |
|           |           |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Cadmium               | 0.92 B  | 0.076 (<BG)       | 0.054 (<BG)          | 0.091 B           | 0.077                |                   |  |  |
|           |           |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Chromium              | 11  | 9.1 (<BG)         | 8.5 (<BG)            | 9.5 L             | 8.5 (<BG)            |                   |  |  |
|           |           |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Cobalt                | 11  | 9.6 (<BG)         | 9.8 (<BG)            | 9.8 L             | 9.3 (<BG)            |                   |  |  |
|           |           |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Copper                | 14  | 12 (<BG)          | 13 (<BG)             | 13                | 12 (<BG)             |                   |  |  |
|           |           |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Lead                  | 4.8   | 3.7 (<BG)         | 3.4 (<BG)            | 4.7               | 3.7 (<BG)            |                   |  |  |
|           |           |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Hexavalent Chromium   | 0.235   | 0.235             | /                    | 0.253             | 0.218                |                   |  |  |
|           |           |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Manganese             | 320   | 281 (<BG)         | 290 (<BG)            | 280 L             | 275 (<BG)            |                   |  |  |
|           |           |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Mercury               | 0.011 B   | 0.007 (<BG)       | 0.0061 (<BG)         | 0.81              | 0.015                |                   |  |  |
|           |           |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Molybdenum            | 0.95 (<BG)  | 0.95 (<BG)        | 0.32                 | 0.37              | 0.37                 |                   |  |  |
|           |           |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Nickel                | 13  | 11 (<BG)          | 10 (<BG)             | 13                | 12 (<BG)             |                   |  |  |
|           |           |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Vanadium              | 64  | 54 (<BG)          | 62 (<BG)             | 54 L              | 51 (<BG)             |                   |  |  |
|           |           |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Zinc                  | 50  | 42 (<BG)          | 43 (<BG)             | 44 L              | 40 (<BG)             |                   |  |  |
| 118-D-6:1 | Reactor   | 100-DR-1      | 999 m <sup>2</sup>                                       | 1944-1967             | This subsite is the Safe Storage Enclosure (SSE) for the 105-D Reactor block. The original footprint area of the 105-D Reactor Building was approximately 4,994 meters squared (53,750 square feet). The final ground-level footprint area of the SSE is 999 meters squared (10,750 square feet). The areas of the reactor building that have been removed to ERDF represent 80% of the original footprint of the reactor building.   | Accepted       | Not Documented                  | N/A                              | N/A                            | N/A                           | N/A  | N/A   | N/A                   | N/A   | N/A               | N/A                  | N/A               | N/A                  | N/A               |  |  |
| 118-D-6:2 | Reactor   | 100-DR-1      | 3,948 m <sup>2</sup><br>(including all 118-D-6 subsites) | 1944-1967             | Subsite is referred to as "Demolition Zones 1-3 and 5" in the CVP. Zone 1 consisted of the water tower pedestal, the 103-D Unirradiated Fuel Element Storage Building, miscellaneous storage room 210, and room 215 on the ground level. Zone 2 was located on the west side of the reactor building and consisted of the 230a valve pit; the 310 supply fan room; the 231 d tool room; the 231 b laundry storage room; the 230b elevator; and the 228a, 228b, 228c, 228d, 229a, and 229b offices. Zone 3 was located on the south side of the reactor building and consisted of the 311, 312, 313, and 314 fan rooms; 315 exhaust plenum; 114a clean storage room; 114b contaminated storage room; 213 stairway/corridor; 233a sample room; and miscellaneous rooms 234 and 235. Zone 5 was located on the north side of the reactor building and consisted of the 211, 212, 218, and 219 miscellaneous rooms; the 220 control room; the inner horizontal control rod room; the outer horizontal control rod room; and miscellaneous rooms numbered 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000 | Interim Closed | WSRF 2005-021<br>CVP-2005-00003 | N/A                              | N/A                            | N/A                           | N/A  | N/A   | N/A                   | This site did not require sampling and analysis because the structures were removed in their entirety and there were no water-bearing structures that could have caused soil contamination. |                   |                      |                   |                      |                   |  |  |
| 118-D-6:3 | Reactor   | 100-DR-1      | 3,948 m <sup>2</sup><br>(including all 118-D-6 subsites) | 1944-1967             | This subsite includes the fuel storage basin and the underlying soil.   | Interim Closed | WSRF 2005-021<br>CVP-2005-00003 | Jan. 2000                        | Dec. 2001                      | Nov. 7 to Dec. 19, 2001       | 21,613   | 4.6 (Fuel Storage basin floor left in place)  | Americium-241         | /   | 515               | 0.01 <sup>c</sup>    | 190               |                      |                   |  |  |
|           |           |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Carbon-14             | /   | 2,630             | 0.098 <sup>e</sup>   | 1,800             |                      |                   |  |  |
|           |           |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Cobalt-60             | /   | 2,260             | 0.082 <sup>e</sup>   | 1,500             |                      |                   |  |  |
|           |           |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Cesium-137            | /   | 16,700            | 0.77 <sup>e</sup>    | 14,000            |                      |                   |  |  |
|           |           |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Europium-152          | /   | 2,780             | 0.13 <sup>e</sup>    | 2,400             |                      |                   |  |  |
|           |           |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Europium-154          | /   | 518               | 0.022 <sup>e</sup>   | 400               |                      |                   |  |  |
|           |           |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Europium-155          | /   | 27 U              | U                    | U                 |                      |                   |  |  |
|           |           |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Tritium (H-3)         | /   | 1,480             | 0.048 <sup>e</sup>   | 870               |                      |                   |  |  |
|           |           |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Neptunium-237         | /   | 0.68              | U                    | U                 |                      |                   |  |  |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code | Site Type     | Operable Unit | Site Dimensions<br>(m)                       | Dates of<br>Operation | Site History  | Class Status   | Decision/<br>Closeout Report    | Remedial<br>Action Start<br>Date | Remedial<br>Action End<br>Date | Verification<br>Sampling Date | Contaminated<br>Waste Volume to<br>ERDF (metric<br>tons) | Maximum<br>Depth of<br>Remedial<br>Action (m) | Maximum Concentration |                      |                   |                        | 95% UCL           |  |  |
|-----------|---------------|---------------|--|-----------------------|---|----------------|---------------------------------|----------------------------------|--------------------------------|-------------------------------|--|---|-----------------------|----------------------|-------------------|------------------------|-------------------|--|--|
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | COC                   | (pCi/g, mg/kg)       |                   | (pCi/g, mg/kg)         |                   |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   |                       | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup>   | Deep <sup>b</sup> |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Nickel-63             | /                    | 72,500            | 2.5 <sup>c</sup>       | 46,000            |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Plutonium-238         | /                    | 14.9              | 0.0006 <sup>c</sup>    | 11                |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Plutonium-239         | /                    | 490               | 0.018 <sup>c</sup>     | 323               |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Plutonium-240         | /                    | 490               | 0.0042 <sup>c</sup>    | 77                |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Strontium (total)     | /                    | 3,620             | /                      | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Strontium-90          | /                    | /                 | 0.16 <sup>c</sup>      | 3,000             |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Uranium-234           | /                    | 23.2              | 0.00088 <sup>c</sup>   | 16                |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Uranium-235           | /                    | 0.891 U           | U                      | U                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Uranium-238           | /                    | 2.58 U            | 0.000055 <sup>c</sup>  | 1                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Uranium (total)       | /                    | /                 | 0.00094 <sup>c</sup>   | 17                |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Hexavalent Chromium   | /                    | 0.4               | 0.0000219 <sup>c</sup> | 0.4               |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Lead                  | /                    | 91.8              | 0.00392 <sup>c</sup>   | 71.7              |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Mercury               | /                    | 16.1 U            | 0.000711 <sup>c</sup>  | 13                |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Aroclor-1254          | /                    | 4.9 J             | 0.000166 <sup>c</sup>  | 3.04              |  |  |
| 118-D-6:4 | Reactor       | 100-DR-1      | 3,948 m2<br>(including all 118-D-6 subsites) | 1944-1967             | The 118-D-6:4 subsite consists of the FSB remediation side slopes and decontamination areas used during ISS activities. | Interim Closed | WSRF 2010-071                   | May-04                           | Aug-09                         | May-10                        | 19143.0  | 4.5   | Cesium-137            | /                    | /                 | 1.67                   | 15.00             |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Europium-152          | /                    | /                 | 0.68                   | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Plutonium-239/240     | /                    | /                 | 0.07                   | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Strontium-90          | /                    | /                 | 0.23                   | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Tritium               | /                    | /                 | 0.02                   | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Uranium-233/234       | /                    | /                 | 0.92                   | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Uranium-238           | /                    | /                 | 1.09                   | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Arsenic               | /                    | /                 | 3.05                   | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Barium                | /                    | 91.40             | 66.74                  | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Beryllium             | /                    | 0.38              | 0.27                   | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Cadmium               | /                    | 1.60              | 0.06                   | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Chromium (total)      | /                    | 64.80             | 10.17                  | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Cobalt                | /                    | 9.70              | 8.16                   | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Copper                | /                    | 56.60             | 20.99                  | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Hexavalent chromium   | /                    | 1.64              | 0.55                   | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Lead                  | /                    | 5.50              | 4.96                   | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Manganese             | /                    | 356.00            | 328.76                 | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Mercury               | /                    | 0.38              | 0.43                   | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Molybdenum            | /                    | 0.29              | 0.24                   | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Nickel                | /                    | 12.00             | 10.59                  | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Vanadium              | /                    | 94.80             | 69.17                  | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Zinc                  | /                    | 148.00            | 46.76                  | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Aroclor-1254          | 0.032                | 0.07              | /                      | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Aroclor-1260          | 0.0068               | /                 | /                      | /                 |  |  |
| 118-DR-1  | Burial Ground | 100-DR-2      | 24.4 x 13.1 x 4.9                            | 1963-1964             | The waste site is a gunnite-lined trench (pond) that trends north and south. There appears to be a 0.9 m (3 ft)         | Interim Closed | WSRF 2009-029<br>CVP-2009-00010 | Jun. 3, 2008                     | Jul.23, 2008                   | Apr. 14, 2009                 | 1,673 bank cubic meters                                  | Did not specify                               | Cesium-137            | 0.144                | /                 | 0.0565                 | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Cobalt-60             | 0.935                | /                 | 0.31                   | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Nickel-63             | 359                  | /                 | 110                    | /                 |  |  |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code                 | Site Type | Operable Unit | Site Dimensions (m) | Dates of Operation | Site History  | Class Status   | Decision/Closeout Report    | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date  | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration |                     |                      |                   | 95% UCL              |                   |                      |                   |
|---------------------------|-----------|---------------|---------------------|--------------------|---|----------------|-----------------------------|----------------------------|--------------------------|---|---|--------------------------------------|-----------------------|---------------------|----------------------|-------------------|----------------------|-------------------|----------------------|-------------------|
|                           |           |               |                     |                    |   |                |                             |                            |                          |   |   |                                      | COC                   |                     | (pCi/g, mg/kg)       |                   | (pCi/g, mg/kg)       |                   | (pCi/g, mg/kg)       |                   |
|                           |           |               |                     |                    |   |                |                             |                            |                          |   |   |                                      | Shallow <sup>a</sup>  | Deep <sup>b</sup>   | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |
|                           |           |               |                     |                    | section in the bottom, lined with 5 cm (2 in.) of sand and no gunnite. This unit contains irradiated metal assemblies from the 105-DR Gas Loop. The burial ground received approximately 20 m <sup>3</sup> (706 ft <sup>3</sup> ) of irradiated metal assemblies.   |                |                             |                            |                          |   |   |                                      |                       |                     |                      |                   |                      |                   |                      |                   |
| 118-DR-2:1                | Reactor   | 100-DR-2      | 892 m <sup>2</sup>  | 1950-1964          | Safe storage enclosure for the 105-DR reactor block. The facility contains radioactive and hazardous chemical substances (e.g., lead, asbestos, and cadmium). The 30 3X balls remain in place.  | Accepted       | Not Documented              | N/A                        | N/A                      | N/A   | N/A   | N/A                                  | N/A                   | N/A                 | N/A                  | N/A               | N/A                  | N/A               | N/A                  |                   |
| 118-DR-2:2, Zone 1        | Reactor   | 100-DR-2      | 83 x 96 x 32        | 1950-1964          | This subsite includes the 105-DR Reactor below grade structures and underlying soils. It was divided into five zones and the decontamination areas. Zone 1 consists of the 400 Fuel Storage basin, 410 Storage and Transfer Area, 412 Storage Area, and the 413 Transfer bay; and the soils underlying the fuel storage basin. This zone is entirely within the deep zone. concrete and soil samples were taken at the fuel storage basin floor. concrete sample values are located in the shallow section. | Interim Closed | WSRF 2003-49 CVP-2003-00016 | Sept. 1998                 | Sept. 19, 2001           | Jul. 17, 1999 to Aug. 4, 1999                                     | 7,220   | 4.6                                  | Americium-241         | 75.5                | 0.269                | 73.3              | 0.09                 |                   |                      |                   |
|                           |           |               |                     |                    |   |                |                             |                            |                          |   |   |                                      |                       | Barium-133          | 3.5 U                | 0.13 U            | 1.58                 | 0.04              |                      |                   |
|                           |           |               |                     |                    |   |                |                             |                            |                          |   |   |                                      |                       | Carbon-14           | 3,300                | 15.8              | 2,000                | 7.83              |                      |                   |
|                           |           |               |                     |                    |   |                |                             |                            |                          |   |   |                                      |                       | Cobalt-60           | 720                  | 4.29              | 58.8                 | 1.26              |                      |                   |
|                           |           |               |                     |                    |   |                |                             |                            |                          |   |   |                                      |                       | Cesium-137          | 11,000               | 17.4              | 910                  | 6.74              |                      |                   |
|                           |           |               |                     |                    |   |                |                             |                            |                          |   |   |                                      |                       | Europium-152        | 2,810                | 15.2              | 1,940                | 4.45              |                      |                   |
|                           |           |               |                     |                    |   |                |                             |                            |                          |   |   |                                      |                       | Europium-154        | 518                  | 2.24              | 377                  | 0.72              |                      |                   |
|                           |           |               |                     |                    |   |                |                             |                            |                          |   |   |                                      |                       | Europium-155        | 21.5                 | 0.22 U            | 16.8                 | 0.07              |                      |                   |
|                           |           |               |                     |                    |   |                |                             |                            |                          |   |   |                                      |                       | Tritium (H-3)       | 8.09                 | N                 | 7.19                 | N                 |                      |                   |
|                           |           |               |                     |                    |   |                |                             |                            |                          |   |   |                                      |                       | Nickel-63           | 11,900               | 102               | 10,200               | 32.5              |                      |                   |
|                           |           |               |                     |                    |   |                |                             |                            |                          |   |   |                                      |                       | Plutonium-238       | 6.83                 | 0.021 U           | 6.62                 | 0.01              |                      |                   |
|                           |           |               |                     |                    |   |                |                             |                            |                          |   |   |                                      |                       | Plutonium-239/240   | 358                  | 1.23              | 291.2                | 0.1               |                      |                   |
|                           |           |               |                     |                    |   |                |                             |                            |                          |   |   |                                      |                       | Strontium-90        | 4,500                | /                 | 4,290                | 13.7 <sup>f</sup> |                      |                   |
|                           |           |               |                     |                    |   |                |                             |                            |                          |   |   |                                      |                       | Technetium-99       | 1.94                 | 1.12              | 1.53                 | 0.52              |                      |                   |
|                           |           |               |                     |                    |   |                |                             |                            |                          |   |   |                                      |                       | Uranium-233/234     | 3.1                  | 0.557             | 1.39                 | <BG               |                      |                   |
|                           |           |               |                     |                    |   |                |                             |                            |                          |   |   |                                      |                       | Uranium-235         | 0.321                | 0.079             | 0.13                 | <BG               |                      |                   |
|                           |           |               |                     |                    |   |                |                             |                            |                          |   |   |                                      |                       | Uranium-238         | 3.19                 | 0.458             | 1.6                  | <BG               |                      |                   |
|                           |           |               |                     |                    |   |                |                             |                            |                          |   |   |                                      |                       | Hexavalent Chromium | 2.8                  | 0.43 U            | 2.5                  | 0.44              |                      |                   |
|                           |           |               |                     |                    |   |                |                             |                            |                          |   |   |                                      |                       | Lead                | 60                   | 3.5               | 53                   | 3.5               |                      |                   |
|                           |           |               |                     |                    |   |                |                             |                            |                          |   |   |                                      |                       | Mercury             | 1.1                  | 2.1               | 0.91                 | 0.05              |                      |                   |
|                           |           |               |                     |                    |   |                |                             |                            |                          |   |   |                                      |                       | PCBs                | 1.1                  | 0.18 U            | 0.91                 | 0.18              |                      |                   |
| 118-DR-2:2, Zones 2 and 3 | Reactor   | 100-DR-2      | 83 x 96 x 32        | 1950-1964          | This subsite includes the 105-DR Reactor below grade structures and underlying soils. It was divided into five zones and the decontamination areas. Zone 2 consists of the valve pit that received wastewater from the reactor and within the deep zone. Zone 3 consisted of the 228c solids feed area, the north water tunnel, and the trench under the accumulator room. This zone is within the shallow zone.  | Interim Closed | WSRF 2003-49 CVP-2003-00016 | Sept. 1998                 | Sept. 19, 2001           | Zone 2: Jul. 19-28, 2000<br>Zone 3: Dec. 17-21, 1999              | 7,220   | 4.6                                  | Americium-241         | 0.58                | 0.413                | 0.0596            | 0.0851               |                   |                      |                   |
|                           |           |               |                     |                    |   |                |                             |                            |                          |   |   |                                      |                       | Barium-133          | 25.3                 | 0.0406 U          | 1.93                 | 0.0202            |                      |                   |
|                           |           |               |                     |                    |   |                |                             |                            |                          |   |   |                                      |                       | Carbon-14           | 7.5                  | 0.609 U           | 1.62                 | 0.371             |                      |                   |
|                           |           |               |                     |                    |   |                |                             |                            |                          |   |   |                                      |                       | Cobalt-60           | 3.75                 | 0.804             | 0.582                | 0.816             |                      |                   |
|                           |           |               |                     |                    |   |                |                             |                            |                          |   |   |                                      |                       | Cesium-137          | 8.84                 | 11.7              | 1.24                 | 2.8               |                      |                   |
|                           |           |               |                     |                    |   |                |                             |                            |                          |   |   |                                      |                       | Europium-152        | 29.9                 | 39                | 4.73                 | 8.16              |                      |                   |
|                           |           |               |                     |                    |   |                |                             |                            |                          |   |   |                                      |                       | Europium-154        | 6.13                 | 7.18              | 0.756                | 1.77              |                      |                   |
|                           |           |               |                     |                    |   |                |                             |                            |                          |   |   |                                      |                       | Europium-155        | 0.47 U               | 0.362             | 0.0778               | 0.1               |                      |                   |
|                           |           |               |                     |                    |   |                |                             |                            |                          |   |   |                                      |                       | Nickel-63           | 225                  | 155               | 31                   | 31                |                      |                   |
|                           |           |               |                     |                    |   |                |                             |                            |                          |   |   |                                      |                       | Plutonium-238       | 0.233                | 0.118             | 0.0275               | 0.0275            |                      |                   |
|                           |           |               |                     |                    |   |                |                             |                            |                          |   |   |                                      |                       | Plutonium-239/240   | 1.95                 | 0.285             | 0.0619               | 0.0619            |                      |                   |
|                           |           |               |                     |                    |   |                |                             |                            |                          |   |   |                                      |                       | Strontium-90        | 12.4                 | 14.7              | 2.65                 | 2.65              |                      |                   |
|                           |           |               |                     |                    |   |                |                             |                            |                          |   |   |                                      |                       | Technetium-99       | 0.936                | 1.36              | 0.342                | 0.342             |                      |                   |
|                           |           |               |                     |                    |   |                |                             |                            |                          |   |   |                                      |                       | Uranium-233/234     | N                    | 0.376             | N                    | <BG               |                      |                   |
|                           |           |               |                     |                    |   |                |                             |                            |                          |   |   |                                      |                       | Uranium-235         | N                    | 0.0271            | N                    | <BG               |                      |                   |
|                           |           |               |                     |                    |   |                |                             |                            |                          |   |   |                                      |                       | Uranium-238         | N                    | 0.388             | N                    | <BG               |                      |                   |
|                           |           |               |                     |                    |   |                |                             |                            |                          |   |   |                                      |                       | Hexavalent Chromium | N                    |                   | N                    | 1.3               |                      |                   |
|                           |           |               |                     |                    |   |                |                             |                            |                          |   |   |                                      |                       | Lead                | 63                   | 5.9               | 19                   | 34                |                      |                   |
|                           |           |               |                     |                    |   |                |                             |                            |                          |   |   |                                      |                       | Mercury             | 2.9                  | 3.2               | 0.84                 | 1.7               |                      |                   |
|                           |           |               |                     |                    |   |                |                             |                            |                          |   |   |                                      |                       | PCBs                | N                    | 2.1               | N                    | 0.76              |                      |                   |
| 118-DR-2:2, Zones 4 and 5 | Reactor   | 100-DR-2      | 83 x 96 x 32        | 1950-1964          | This subsite includes the 105-DR Reactor below grade structures and underlying soils. It was divided into five zones and the decontamination areas. Zone 4 consisted of the 105 Gas   | Interim Closed | WSRF 2003-49 CVP-2003-00016 | Sept. 1998                 | Sept. 19, 2001           | Zone 4: Apr. 25 & May 23, 2000<br>Zone 5: Aug. 3 & Sept. 27, 2000 | 7,220   | 4.6                                  | Americium-241         | 0.074 U             | 1.14                 | 0.0314            | 0.556                |                   |                      |                   |
|                           |           |               |                     |                    |   |                |                             |                            |                          |   |   |                                      |                       | Barium-133          | 0.035 U              | 0.65 U            | 0.0162               | 0.153             |                      |                   |
|                           |           |               |                     |                    |   |                |                             |                            |                          |   |   |                                      |                       | Carbon-14           | 4.73 U               | 357               | 3.04                 | 178               |                      |                   |
|                           |           |               |                     |                    |   |                |                             |                            |                          |   |   |                                      |                       | Cobalt-60           | 0.122                | 2.41              | 0.0507               | 1.04              |                      |                   |
|                           |           |               |                     |                    |   |                |                             |                            |                          |   |   |                                      |                       | Cesium-137          | 1.98                 | 146               | 0.892                | 18.4              |                      |                   |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code  | Site Type           | Operable Unit | Site Dimensions (m)   | Dates of Operation                 | Site History   | Class Status   | Decision/Closeout Report            | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration |   |                   |                      | 95% UCL           |         |   |  |
|------------|---------------------|---------------|---|------------------------------------|--|----------------|-------------------------------------|----------------------------|--------------------------|----------------------------|---|--------------------------------------|-----------------------|---|-------------------|----------------------|-------------------|---------|---|--|
|            |                     |               |   |                                    |  |                |                                     |                            |                          |                            |   |                                      | (pCi/g, mg/kg)        |   |                   |                      | (pCi/g, mg/kg)    |         |   |  |
|            |                     |               |   |                                    |  |                |                                     |                            |                          |                            |   |                                      | COC                   | Shallow <sup>a</sup>  | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |         |   |  |
|            |                     |               |   |                                    | Tunnel, 316 Exhaust Plenum, 103 Gas Recirculation Tunnel, and the 104 Instrument Room. This zone is entirely within the deep zone. Zone 5 consisted of the side slope soils around the fuel storage basin, the south effluent pipelines, and the soil under the 224b Slab. This zone is within the shallow zone.   |                |                                     |                            |                          |                            |   |                                      |                       |   |                   |                      |                   |         |   |  |
|            |                     |               |   |                                    |  |                |                                     |                            |                          |                            |   |                                      |                       |   |                   |                      |                   |         |   |  |
|            |                     |               |   |                                    |  |                |                                     |                            |                          |                            |   |                                      |                       |   |                   |                      |                   |         |   |  |
|            |                     |               |   |                                    |  |                |                                     |                            |                          |                            |   |                                      |                       |   |                   |                      |                   |         |   |  |
|            |                     |               |   |                                    |  |                |                                     |                            |                          |                            |   |                                      |                       |   |                   |                      |                   |         |   |  |
|            |                     |               |   |                                    |  |                |                                     |                            |                          |                            |   |                                      |                       |   |                   |                      |                   |         |   |  |
|            |                     |               |   |                                    |  |                |                                     |                            |                          |                            |   |                                      |                       |   |                   |                      |                   |         |   |  |
|            |                     |               |   |                                    |  |                |                                     |                            |                          |                            |   |                                      |                       |   |                   |                      |                   |         |   |  |
|            |                     |               |   |                                    |  |                |                                     |                            |                          |                            |   |                                      |                       |   |                   |                      |                   |         |   |  |
| 120-D-1    | Pond                | 100-DR-1      | 3600 m <sup>2</sup>   | 1977-1994                          | The pond was a Resource conservation and Recovery Act of 1976 (RCRA)-permitted TSD unit. It received 170,293 L/day (45,000 gal/day) of nonhazardous, nonradioactive effluent from the 183-D Sand Filter and 185-D and 189-D Buildings. The effluent contained alum-precipitated sand filter back flush and chlorinated water. Site did receive corrosive effluent up to three times a year; mercury and PCB detected above background. | Closed Out     | 100-D Ponds Closure (TSD No. D-1-1) | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  |                       | DOE accepted clean closure as of August 9, 1999.  |                   |                      |                   |         |   |  |
| 120-D-2    | Surface Impoundment | 100-DR-1      | 28.1 x 28.1 x 7.3   | 1945-1979 (not used operationally) | constructed of acid-proof brick, waterproof membrane, vitrified pipe, No. 8 lead flashing, and gunnite. Facility never used (no records found to document use). Structure demolished in place in 1979. Designated as a waste site because the lead flashing was not removed.   | Interim Closed | WSRF/RSVP-2008-053                  | May, 2007                  | July, 2007               | Sept. 17, 2008             | 3,361 m <sup>3</sup>                            | 3 to 5                               |                       | Antimony  | 0.72 J            | /                    | /                 | /       | / |  |
|            |                     |               |   |                                    |  |                |                                     |                            |                          |                            |   |                                      |                       | Arsenic   | 2.9               | /                    | 2.3               | /       | / |  |
|            |                     |               |   |                                    |  |                |                                     |                            |                          |                            |   |                                      |                       | Barium  | 98.9 C            | /                    | 71.5              | /       | / |  |
|            |                     |               |   |                                    |  |                |                                     |                            |                          |                            |   |                                      |                       | Beryllium   | 0.29              | /                    | 0.25              | /       | / |  |
|            |                     |               |   |                                    |  |                |                                     |                            |                          |                            |   |                                      |                       | Boron   | 5.9               | /                    | 2.5               | /       | / |  |
|            |                     |               |   |                                    |  |                |                                     |                            |                          |                            |   |                                      |                       | Cadmium   | 0.11              | /                    | /                 | /       | / |  |
|            |                     |               |   |                                    |  |                |                                     |                            |                          |                            |   |                                      |                       | Chloride  | 8.5 J             | /                    | /                 | /       | / |  |
|            |                     |               |   |                                    |  |                |                                     |                            |                          |                            |   |                                      |                       | Chromium Total  | 8.3               | /                    | 7.1               | /       | / |  |
|            |                     |               |   |                                    |  |                |                                     |                            |                          |                            |   |                                      |                       | Hexavalent Chromium   | 0.22              | /                    | /                 | /       | / |  |
|            |                     |               |   |                                    |  |                |                                     |                            |                          |                            |   |                                      |                       | Cobalt  | 9.9               | /                    | 9.3               | /       | / |  |
|            |                     |               |   |                                    |  |                |                                     |                            |                          |                            |   |                                      |                       | Copper  | 16.5              | /                    | 15.5              | /       | / |  |
|            |                     |               |   |                                    |  |                |                                     |                            |                          |                            |   |                                      |                       | Lead  | 9.7               | /                    | 7.5               | /       | / |  |
|            |                     |               |   |                                    |  |                |                                     |                            |                          |                            |   |                                      |                       | Manganese   | 353 C             | /                    | 337               | /       | / |  |
|            |                     |               |   |                                    |  |                |                                     |                            |                          |                            |   |                                      |                       | Mercury   | 0.3               | /                    | /                 | /       | / |  |
|            |                     |               |   |                                    |  |                |                                     |                            |                          |                            |   |                                      |                       | Molybdenum  | 0.68              | /                    | 0.61              | /       | / |  |
|            |                     |               |   |                                    |  |                |                                     |                            |                          |                            |   |                                      |                       | Nickel  | 10.3              | /                    | 9.8               | /       | / |  |
|            |                     |               |   |                                    |  |                |                                     |                            |                          |                            |   |                                      |                       | Nitrogen in Nitrate   | 1.2               | /                    | 0.6               | /       | / |  |
|            |                     |               |   |                                    |  |                |                                     |                            |                          |                            |   |                                      |                       | Sulfate   | 1240 DCJ          | /                    | 2228              | /       | / |  |
|            |                     |               |   |                                    |  |                |                                     |                            |                          |                            |   |                                      |                       | Vanadium  | 87.2              | /                    | 77.3              | /       | / |  |
|            |                     |               |   |                                    |  |                |                                     |                            |                          |                            |   |                                      |                       | Zinc  | 57.4              | /                    | 52.7              | /       | / |  |
| 122-DR-1:1 | Laboratory          | 100-DR-2      | Exhaust fan room: 6.2 x 8.2 x 6.4<br>Small fire room: 6.2 x 8.2 x 6.4<br>Large fire room: 6.2 x 8.2 x 6.4 | 1972-1986                          | The 105-DR Large Sodium Fire Facility (LSFF) was established to study fire fighting and safety aspects associated with large sodium or other metal alkali fires in the Liquid Metal Fast Breeder Reactor (LMFBR) facilities. Area 1 (122-DR-1:1) consisted of the exhaust fan room, small fire room, large fire room, sodium handling room, and an office area, largely within the former facility.                                    | Closed Out     | 96-PCA-152 Ref letter 9601918       | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  |                       | Clean closure of this area as defined in the 105-DR Large Sodium Fire Facility Closure Plan, releases this area from the requirements of the RCRA and Chapter 173-303 WAC. PER LETTER 9601918 |                   |                      |                   |         |   |  |
| 122-DR-1:2 | Laboratory          | 100-DR-2      | Not Documented  | 1972-1986                          | The 105-DR Large Sodium Fire Facility (LSFF) was established to study fire fighting and safety aspects associated with large sodium or other metal alkali fires in the Liquid Metal Fast Breeder Reactor (LMFBR) facilities. Area 2 (122-DR-1:2)   | Closed Out     | WSRF 2003-053 CVP-2003-00018        | Jul. 2003                  | Jul. 2003                | Aug. 8, 2003               | 14,011  | 4.6                                  |                       | Americium-241   | 0.05 U            | 0.082 U              | 0.0331            | 0.00908 |   |  |
|            |                     |               |   |                                    |  |                |                                     |                            |                          |                            |   |                                      |                       | Carbon-14   | 1.22 U            | 1.66 U               | 0.927             | 1.12    |   |  |
|            |                     |               |   |                                    |  |                |                                     |                            |                          |                            |   |                                      |                       | Cobalt-60   | 0.031 U           | 0.045 U              | 0.0146            | 0.0219  |   |  |
|            |                     |               |   |                                    |  |                |                                     |                            |                          |                            |   |                                      |                       | Cesium-137  | 0.063             | 0.05 U               | 0.0518            | 0.0459  |   |  |
|            |                     |               |   |                                    |  |                |                                     |                            |                          |                            |   |                                      |                       | Europium-152  | 0.068 U           | 0.092 U              | 0.0326            | 0.0446  |   |  |
|            |                     |               |   |                                    |  |                |                                     |                            |                          |                            |   |                                      |                       | Europium-154  | 0.098 U           | 0.15 U               | 0.0472            | 0.0711  |   |  |
|            |                     |               |   |                                    |  |                |                                     |                            |                          |                            |   |                                      |                       | Nickel-63   | 2.56 U            | 4.34 U               | 1.08              | 1.63    |   |  |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code  | Site Type  | Operable Unit | Site Dimensions<br>(m)                                      | Dates of<br>Operation | Site History   | Class Status | Decision/<br>Closeout Report     | Remedial<br>Action Start<br>Date | Remedial<br>Action End<br>Date | Verification<br>Sampling Date | Contaminated<br>Waste Volume to<br>ERDF (metric<br>tons) | Maximum<br>Depth of<br>Remedial<br>Action (m) | Maximum Concentration |   |                   |                      | 95% UCL           |         |  |  |
|------------|------------|---------------|---|-----------------------|--|--------------|----------------------------------|----------------------------------|--------------------------------|-------------------------------|--|---|-----------------------|---|-------------------|----------------------|-------------------|---------|--|--|
|            |            |               |   |                       |  |              |                                  |                                  |                                |                               |  |   | COC                   | (pCi/g, mg/kg)  |                   | (pCi/g, mg/kg)       |                   |         |  |  |
|            |            |               |   |                       |  |              |                                  |                                  |                                |                               |  |   |                       | Shallow <sup>a</sup>  | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |         |  |  |
|            |            |               |   |                       | consisted of the underground exhaust tunnels between the 105-DR Building, the 117-DR Building, and the 116-DR Exhaust Stack.   |              |                                  |                                  |                                |                               |  |   |                       | Plutonium-238   | 0.037 U           | 0.106 U              | 0.024             | 0.0759  |  |  |
|            |            |               |   |                       |  |              |                                  |                                  |                                |                               |  |   |                       | Plutonium-239/240   | 0.037 U           | 0.053 U              | 0.0245            | 0.0234  |  |  |
|            |            |               |   |                       |  |              |                                  |                                  |                                |                               |  |   |                       | Strontium-90  | 0.0568 U          | 0.02 U               | -0.003            | 0.00061 |  |  |
|            |            |               |   |                       |  |              |                                  |                                  |                                |                               |  |   |                       | Uranium-233/234   | 0.686             | 0.668                | 0.608             | 0.612   |  |  |
|            |            |               |   |                       |  |              |                                  |                                  |                                |                               |  |   |                       | Uranium-235   | 0.0983            | 0.52 U               | 0.0551            | 0.0499  |  |  |
|            |            |               |   |                       |  |              |                                  |                                  |                                |                               |  |   |                       | Uranium-238   | 0.918             | 0.857                | 0.573             | 0.612   |  |  |
|            |            |               |   |                       |  |              |                                  |                                  |                                |                               |  |   |                       | Arsenic   | 3.1               | 2.6                  | 2.9               | 2.4     |  |  |
|            |            |               |   |                       |  |              |                                  |                                  |                                |                               |  |   |                       | Barium  | 68                | 65                   | 65                | 58      |  |  |
|            |            |               |   |                       |  |              |                                  |                                  |                                |                               |  |   |                       | Cadmium   | 0.19              | 0.21                 | 0.19              | 0.21    |  |  |
|            |            |               |   |                       |  |              |                                  |                                  |                                |                               |  |   |                       | Chromium  | 93                | 99                   | 11                | 10      |  |  |
|            |            |               |   |                       |  |              |                                  |                                  |                                |                               |  |   |                       | Hexavalent Chromium   | 0.42 U            | 0.42 U               | 0.42              | 0.42    |  |  |
|            |            |               |   |                       |  |              |                                  |                                  |                                |                               |  |   |                       | Lead  | 7.4               | 4.2                  | 6.5               | 9.9     |  |  |
|            |            |               |   |                       |  |              |                                  |                                  |                                |                               |  |   |                       | Lithium   | 13                | 14                   | 12                | 9.9     |  |  |
|            |            |               |   |                       |  |              |                                  |                                  |                                |                               |  |   |                       | Mercury   | 0.02 U            | 0.02 U               | 0.02              | 0.02    |  |  |
|            |            |               |   |                       |  |              |                                  |                                  |                                |                               |  |   |                       | Selenium  | 0.3               | 0.33 U               | 0.3               | 0.33    |  |  |
|            |            |               |   |                       |  |              |                                  |                                  |                                |                               |  |   |                       | Silver  | 0.08              | 0.085 U              | 0.08              | 0.08    |  |  |
| 122-DR-1:3 | Laboratory | 100-DR-2      | Not Documented  | 1982-1986             | The 105-DR Large Sodium Fire Facility (LSFF) was established to study fire fighting and safety aspects associated with large sodium or other metal alkali fires in the Liquid Metal Fast Breeder Reactor (LMFBR) facilities. Area 3 (122-DR-1:3) consisted of a sub-grade gravel scrubber and ducts that were installed in 1982 as part of a filter development program. The scrubber allowed the offgas to bypass the 117-DR HEPA Filter Building and discharges were routed to the 116-DR-8 (aka 122-DR- | Closed Out   | 96-PCA-152<br>Ref letter 9601918 | N/A                              | N/A                            | N/A                           | N/A  | N/A   | N/A                   | Clean closure of this area as defined in the 105-DR Large Sodium Fire Facility Closure Plan, releases this area from the requirements of the RCRA and Chapter 173-303 WAC. PER LETTER 9601918 |                   |                      |                   |         |  |  |
| 122-DR-1:4 | Laboratory | 100-DR-2      | 20.7 x 11.9 x 10.4  | 1972-1986             | The 105-DR Large Sodium Fire Facility (LSFF) was established to study fire fighting and safety aspects associated with large sodium or other metal alkali fires in the Liquid Metal Fast Breeder Reactor (LMFBR) facilities. Area 4 (122-DR-1:4) consisted of the portion of the 117-DR facility used for the LSFF and the post-filtration exhaust tunnel to the 116-DR stack. Usage of the 117-DR facility prior to the LSFF is addressed by the 100-D-53 site.   | Closed Out   | CVP-2003-00018                   | Jul. 2003                        | Jul. 2003                      | Aug. 8, 2003                  | 14, 011  | 4.6   | Refer to 122-DR-1:2   |   |                   |                      |                   |         |  |  |
| 122-DR-1:5 | Laboratory | 100-DR-2      | 4.9 dia. x 61 high<br>5.3 below grade                       | 1972-1986             | The 105-DR Large Sodium Fire Facility (LSFF) was established to study fire fighting and safety aspects associated with large sodium or other metal alkali fires in the Liquid Metal Fast Breeder Reactor (LMFBR) facilities. Area 5 (122-DR-1:5) consisted of the former 116-DR exhaust stack as used for the LSFF; previous use is addressed by the 132-DR-2 site.  | Closed Out   | CVP-2003-00018                   | Jul. 2003                        | Jul. 2003                      | Aug. 8, 2003                  | 14,011   | 4.6   | Refer to 122-DR-1:2   |   |                   |                      |                   |         |  |  |
| 122-DR-1:6 | Laboratory | 100-DR-2      | 3.0 x 3.0 and 3.3 to 4.6 m bgs (measurements from 116-DR-8) | 1972-1986             | This subsite consists of the 116-DR-8 Crib meeting RCRA requirements. The crib was originally used from 1960 to 1964 to percolate low-level waste drainage from the 117-DR Building seal pits. When used for the Large Sodium Fire Facility (LSFF), the 116-DR-8 Crib received only water reported not to have been corrosive (the pH level was less than 12.5).   | Closed Out   | 96-PCA-152<br>Ref letter 9601918 | N/A                              | N/A                            | N/A                           | N/A  | N/A   | N/A                   | This area is not believed to have received dangerous wastes from the operation of the LSFF, and is therefore considered closed for the purposes of Chapter 173-303-610. PER LETTER 9601918    |                   |                      |                   |         |  |  |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code          | Site Type                 | Operable Unit | Site Dimensions (m)   | Dates of Operation | Site History  | Class Status   | Decision/Closeout Report         | Remedial Action Start Date      | Remedial Action End Date       | Verification Sampling Date               | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration   |                      |                          |                   |                |           |                |  |  |  |
|--------------------|---------------------------|---------------|---|--------------------|---|----------------|----------------------------------|---------------------------------|--------------------------------|--|---|--------------------------------------|---|----------------------|--------------------------|-------------------|----------------|-----------|----------------|--|--|--|
|                    |                           |               |   |                    |   |                |                                  |                                 |                                |  |   |                                      | COC   | Shallow <sup>a</sup> |                          | Deep <sup>b</sup> |                | 95% UCL   |                |  |  |  |
|                    |                           |               |   |                    |   |                |                                  |                                 |                                |  |   |                                      |   | (pCi/g, mg/kg)       | (pCi/g, mg/kg)           | (pCi/g, mg/kg)    | (pCi/g, mg/kg) |           | (pCi/g, mg/kg) |  |  |  |
| 122-DR-1:7         | Laboratory                | 100-DR-2      | Not Documented  | 1972-1986          | The 105-DR Large Sodium Fire Facility (LSFF) was established to study fire fighting and safety aspects associated with large sodium or other metal alkali fires in the Liquid Metal Fast Breeder Reactor (LMFBR) facilities. Area 7 (122-DR-1:7) consisted of the area to the north and west of the 117-DR HEPA filter  | Closed Out     | 96-PCA-152<br>Ref letter 9601918 | N/A                             | N/A                            | N/A                                      | N/A   | N/A                                  | Clean closure of this area as defined in the 105-DR Large Sodium Fire Facility Closure Plan, releases this area from the requirements of the RCRA and Chapter 173-303 WAC. PER LETTER 9601918 |                      |                          |                   |                |           |                |  |  |  |
| 126-D-1            | coal ash Pit              | 100-DR-1      | 79 x 88.5 x 4 (basin structure only)  | 1950-1960          | This site received coal ash sluiced via pipeline from the 184-D Powerhouse. Past studies have concluded that ash from Hanford Site power plants is nonradioactive and non-dangerous (DOE/RL-92-71). Additionally, ash has been determined by testing in accordance with WAC 173-303, "Dangerous Waste Regulations," to be well below concentrations required for designation as EP toxic material.  | Rejected       | WSRF 98-06                       | N/A                             | N/A                            | N/A                                      | N/A   | N/A                                  | N/A   | N/A                  | N/A                      | N/A               | N/A            | N/A       |                |  |  |  |
| 126-D-2            | Inert/Demolition Landfill | 100-DR-1      | 152.4 x 79.2 x 4.6<br>The length and depth of this site is also reported as 88.4 m and 4.1 m, respectively. | 1943-1986          | The site is an excavated pit that originally was used to store coal for the 184-D Powerhouse. It was later used as a demolition and inert waste landfill. This unit is full of debris and covered with about 0.3 m of backfill material. In the 1970s, the coal pit was used for the disposal of solid waste. The coal pit received materials from D&D activities for about 20 years. The site has also received waste from the 100-N Area and from the 189-D Maintenance Facility. | Interim Closed | CVP-2009-00007                   | May. 29, 2007 and Oct. 19, 2009 | Oct. 6, 2008 and Mar. 16, 2010 | Oct. 19, 2009 Feb. 23, and Mar. 16, 2010 | 43,979 BCM                                      | Ranged from 3 to 5.5                 | Excavation  |                      |                          |                   |                | Stockpile |                |  |  |  |
|                    |                           |               |   |                    |   |                |                                  |                                 |                                |  |   |                                      | Maximum   | 95% UCL              | Focused Samples Max only | Maximum           | 95% UCL        |           |                |  |  |  |
|                    |                           |               |   |                    |   |                |                                  |                                 |                                |  |   |                                      | Antimony  | 0.66 J               | 0.79                     | 0.62              | 0.90 B         | 0.83      |                |  |  |  |
|                    |                           |               |   |                    |   |                |                                  |                                 |                                |  |   |                                      | Arsenic   | 3.2                  | 2.5                      | 3                 | 2.9            | 2.6       |                |  |  |  |
|                    |                           |               |   |                    |   |                |                                  |                                 |                                |  |   |                                      | Barium  | 120 L                | 87                       | 120               | 92             | 82        |                |  |  |  |
|                    |                           |               |   |                    |   |                |                                  |                                 |                                |  |   |                                      | Beryllium   | 0.94 B               | 0.75                     | 0.63              | 0.87           | 0.8       |                |  |  |  |
|                    |                           |               |   |                    |   |                |                                  |                                 |                                |  |   |                                      | Boron   | 6.9                  | 3.1                      | 7.9               | 3              | 2.1       |                |  |  |  |
|                    |                           |               |   |                    |   |                |                                  |                                 |                                |  |   |                                      | Cadmium   | 0.043                | /                        | /                 | /              | /         |                |  |  |  |
|                    |                           |               |   |                    |   |                |                                  |                                 |                                |  |   |                                      | Chromium Total  | 10 L                 | 8.1                      | 7.8               | 8.5 L          | 7.9       |                |  |  |  |
|                    |                           |               |   |                    |   |                |                                  |                                 |                                |  |   |                                      | Cobalt  | 12 L                 | 11                       | 9.7               | 9.3 L          | 8.8       |                |  |  |  |
|                    |                           |               |   |                    |   |                |                                  |                                 |                                |  |   |                                      | Copper  | 16                   | 14                       | 14                | 14 L           | 13        |                |  |  |  |
|                    |                           |               |   |                    |   |                |                                  |                                 |                                |  |   |                                      | Lead  | 5.1                  | 4.2                      | 72                | 4              | 3.6       |                |  |  |  |
|                    |                           |               |   |                    |   |                |                                  |                                 |                                |  |   |                                      | Manganese   | 140 L                | 355                      | 360               | 330 L          | 314       |                |  |  |  |
|                    |                           |               |   |                    |   |                |                                  |                                 |                                |  |   |                                      | Mercury   | 0.039                | 0.013                    | 0.023             | 0.011 B        | 0.0094    |                |  |  |  |
|                    |                           |               |   |                    |   |                |                                  |                                 |                                |  |   |                                      | Molybdenum  | 0.35                 | /                        | 0.33              | 0.41 BM        | 0.29      |                |  |  |  |
|                    |                           |               |   |                    |   |                |                                  |                                 |                                |  |   |                                      | Nickel  | 14 L                 | 12                       | 12                | 12 L           | 10        |                |  |  |  |
|                    |                           |               |   |                    |   |                |                                  |                                 |                                |  |   |                                      | Vanadium  | 90 L                 | 80                       | 76                | 65 L           | 62        |                |  |  |  |
|                    |                           |               |   |                    |   |                |                                  |                                 |                                |  |   |                                      | Zinc  | 60 L                 | 53                       | 50                | 45 L           | 42        |                |  |  |  |
|                    |                           |               |   |                    |   |                |                                  |                                 |                                |  |   |                                      | 2-methylnaphthalene   | /                    | /                        | 0.0915            | /              | /         |                |  |  |  |
|                    |                           |               |   |                    |   |                |                                  |                                 |                                |  |   |                                      | Acenaphthene  | /                    | /                        | 0.24              | /              | /         |                |  |  |  |
|                    |                           |               |   |                    |   |                |                                  |                                 |                                |  |   |                                      | Anthracene  | 0.013                | /                        | 0.00924           | /              | /         |                |  |  |  |
|                    |                           |               |   |                    |   |                |                                  |                                 |                                |  |   |                                      | benzo(a)anthracene  | 0.027                | /                        | 0.0351            | 0.013 JX       | 0.012     |                |  |  |  |
|                    |                           |               |   |                    |   |                |                                  |                                 |                                |  |   |                                      | benzo(a)pyrene  | 0.027                | /                        | 0.0351            | 0.0084 J       | /         |                |  |  |  |
|                    |                           |               |   |                    |   |                |                                  |                                 |                                |  |   |                                      | benzo(b)fluoranthene  | 0.038                | 0.016                    | 0.0241            | 0.01 J         | /         |                |  |  |  |
|                    |                           |               |   |                    |   |                |                                  |                                 |                                |  |   |                                      | benzo(ghi)perylene  | 0.05                 | /                        | /                 | /              | /         |                |  |  |  |
|                    |                           |               |   |                    |   |                |                                  |                                 |                                |  |   |                                      | benzo(k)fluoranthene  | 0.027                | /                        | 0.0161            | 0.0062 J       | /         |                |  |  |  |
|                    |                           |               |   |                    |   |                |                                  |                                 |                                |  |   |                                      | Chrysene  | 0.086                | 0.031                    | 0.0227            | 0.02 J         | /         |                |  |  |  |
|                    |                           |               |   |                    |   |                |                                  |                                 |                                |  |   |                                      | Dibenz[a,h]anthracene   | 0.026                | /                        | /                 | /              | /         |                |  |  |  |
|                    |                           |               |   |                    |   |                |                                  |                                 |                                |  |   |                                      | Dimethyl phthalate  | /                    | /                        | /                 | 0.058 J        | /         |                |  |  |  |
| Fluoranthene       | 0.058                     | /             | 0.221   | /                  | /   |                |                                  |                                 |                                |  |   |                                      |   |                      |                          |                   |                |           |                |  |  |  |
| Fluorene           | /                         | /             | 0.0632  | /                  | /   |                |                                  |                                 |                                |  |   |                                      |   |                      |                          |                   |                |           |                |  |  |  |
| Indeno(1, 2, 3-    | 0.00596                   | /             | 0.013   | 0.016 J            | /   |                |                                  |                                 |                                |  |   |                                      |   |                      |                          |                   |                |           |                |  |  |  |
| Naphthalene        | 0.014 JX                  | /             | 0.105   | /                  | /   |                |                                  |                                 |                                |  |   |                                      |   |                      |                          |                   |                |           |                |  |  |  |
| Phenanthrene       | 0.067                     | /             | 0.137   | 0.02 J             | /   |                |                                  |                                 |                                |  |   |                                      |   |                      |                          |                   |                |           |                |  |  |  |
| Pyrene             | 0.073                     | 0.097         | 0.0638  | 0.027 J            | /   |                |                                  |                                 |                                |  |   |                                      |   |                      |                          |                   |                |           |                |  |  |  |
| DDE, 4, 4'-        | 0.027                     | 0.0066        | 0.0029  | 2.8                | 0.002   |                |                                  |                                 |                                |  |   |                                      |   |                      |                          |                   |                |           |                |  |  |  |
| DDT, 4, 4'-        | 0.100 XDJ                 | 0.023         | 0.075   | 0.00088 J          | /   |                |                                  |                                 |                                |  |   |                                      |   |                      |                          |                   |                |           |                |  |  |  |
| Delta - BHC        | 0.00045 JX                | /             | 0.00068   | /                  | /   |                |                                  |                                 |                                |  |   |                                      |   |                      |                          |                   |                |           |                |  |  |  |
| Dieldrin           | 0.00042 JX                | /             | /   | /                  | /   |                |                                  |                                 |                                |  |   |                                      |   |                      |                          |                   |                |           |                |  |  |  |
| Endosulfan II      | /                         | /             | 0.00039   | /                  | /   |                |                                  |                                 |                                |  |   |                                      |   |                      |                          |                   |                |           |                |  |  |  |
| Endrin aldehyde    | /                         | /             | 0.00081   | /                  | /   |                |                                  |                                 |                                |  |   |                                      |   |                      |                          |                   |                |           |                |  |  |  |
| Chlordane (alpha)  | 0.00057 J                 | /             | /   | /                  | /   |                |                                  |                                 |                                |  |   |                                      |   |                      |                          |                   |                |           |                |  |  |  |
| Chlordane (gamma)  | 0.00049 J                 | /             | 0.00031   | /                  | /   |                |                                  |                                 |                                |  |   |                                      |   |                      |                          |                   |                |           |                |  |  |  |
| Heptachlor epoxide | 0.0078 X                  | /             | 0.0058  | /                  | /   |                |                                  |                                 |                                |  |   |                                      |   |                      |                          |                   |                |           |                |  |  |  |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code | Site Type    | Operable Unit | Site Dimensions (m)  | Dates of Operation | Site History  | Class Status   | Decision/Closeout Report | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration  |                      |                   |                      | 95% UCL           |     |     |
|-----------|--------------|---------------|----------------------|--------------------|---|----------------|--------------------------|----------------------------|--------------------------|----------------------------|---|--------------------------------------|--|----------------------|-------------------|----------------------|-------------------|-----|-----|
|           |              |               |                      |                    |   |                |                          |                            |                          |                            |   |                                      | COC  | (pCi/g, mg/kg)       |                   | (pCi/g, mg/kg)       |                   |     |     |
|           |              |               |                      |                    |   |                |                          |                            |                          |                            |   |                                      |  | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |     |     |
|           |              |               |                      |                    |   |                |                          |                            |                          |                            |   |                                      | Aroclor-1260   | 0.0052 JP            | /                 | /                    | /                 | /   |     |
|           |              |               |                      |                    |   |                |                          |                            |                          |                            |   |                                      | Methoxychlor   | /                    | /                 | 0.00086              | /                 | /   |     |
|           |              |               |                      |                    |   |                |                          |                            |                          |                            |   |                                      | TPH-diesel   | /                    | /                 | 69                   | /                 | /   |     |
|           |              |               |                      |                    |   |                |                          |                            |                          |                            |   |                                      | TPH-diesel extended  | /                    | /                 | 160                  | /                 | /   |     |
| 126-D-3   | Sump         | 100-DR-1      | 9.45 x 5.49 x 3.66   | Not Documented     | These salt-dissolving pits and brine pump pit were part of a single, belowgrade concrete structure that provided brine for the 184-D Powerhouse. The brine was used to regenerate the zeolite ion exchange demineralizers that were part of the powerhouse water treatment system. The site was demolished in situ in March 1988. before demolition, the pits were surveyed for radiological and nonradiological hazardous materials. The water analysis from the salt-dissolving pits indicated no radioactivity above background and no reportable concentrations of heavy metals. The sodium chloride concentrations were greater than 10 percent (hazardous material limit). The dissolving pits also contained approximately 6.3 m3 (8.3 yd3) of salt cake (sodium chloride). Northwest Environmental Services, Inc., removed water and salt cake from the pits and disposed of them as hazardous waste. Holes were punched into the bottom of the pits to facilitate drainage. The pits were then partially backfilled with | Rejected       | WSRF 97-004              | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A  | N/A                  | N/A               | N/A                  | N/A               | N/A | N/A |
| 126-DR-1  | Dumping Area | 100-DR-2      | 9.45 x 5.49 x 3.66   | After 1978         | This site originally contained four 1.42E+07 L (3.75E+06 gal) steel water tanks that have been removed. The site was subsequently used as a burial ground. The waste site contains demolition and inert waste from demolished facilities, including rubble from released portions of the 115-D/DR, and some rubble from 183-DR. The debris was removed during the site remediation and the pads and surrounding soils (including sidewalls) will be remediated as part of the 100-D-50:6 waste site.  | Interim Closed | WSRF/RSVP-2008-046       | 4/5/2007                   | 7/24/2008                | No verification samples    | 23,790  | N/A                                  | RSVP-2008-046, Pg 8 under IN-PROCESSING SAMPLING states: "Verification sampling was not conducted at the 126-DR-1 Waste Site because it is located entirely above areas planned for remediation (Figure 9). Underlying pipelines are planned for remediation as the 100-D--50:6 waste site. Samples were collected from the 190-DR Clearwell concrete pads and surrounding soils and analyzed for hexavalent chromium (Table 1, Figure 10). The concrete samples were also analyzed by inductively coupled metal analysis. The results show that the surface of the concrete for all four pads is contaminated with hexavalent chromium above direct exposure remedial action goals (RAGs) (Appendix A). |                      |                   |                      |                   |     |     |
| 128-D-1   | Burn Pit     | 100-DR-2      | 30.48 x 30.48 x 3.05 | 1944-1967          | Review of historical information and physical site observation indicates that this burn pit does not exist. This site is a duplicate of either 628-3 or 128-D-2 burn pits.  | No Action      | WSRF 2003-009            | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | The Waste Site Evaluation for 128-D-1 Burn Pit (Calculation No. 0100D-CA-V0126) (BHI 2003), demonstrates that the historical data available for the 128-D-1 is of sufficient quality and quantity to support the no action interim closure. based on the description in the technical baseline report (Carpenter 1993), a field walkdown, geophysical surveys (March 2003), and aerial photos from 1956, 1960, and 1988, it has  |                      |                   |                      |                   |     |     |
| 128-D-2   | Burn Pit     | 100-DR-1      | 73.2 x 73.2          | Not Documented     | Large landfill area that shows evidence of surface burning. Some pieces of uncontaminated reactor hardware were found at the site.  | Interim Closed | WSRF/RSVP-2011-035       | 22-Jul-09                  | 14-Jan-10                | 7-Mar-11                   | 39,579  | ~5                                   | Cesium-137   | /                    | /                 | 0.0451               | /                 |     |     |
|           |              |               |                      |                    |   |                |                          |                            |                          |                            |   |                                      | Strontium-90   | /                    | /                 | 0.0913               | /                 |     |     |
|           |              |               |                      |                    |   |                |                          |                            |                          |                            |   |                                      | Arsenic  | /                    | /                 | 2.9                  | /                 |     |     |
|           |              |               |                      |                    |   |                |                          |                            |                          |                            |   |                                      | Barium   | /                    | /                 | 83.1                 | /                 |     |     |
|           |              |               |                      |                    |   |                |                          |                            |                          |                            |   |                                      | Beryllium  | /                    | /                 | 0.21                 | /                 |     |     |
|           |              |               |                      |                    |   |                |                          |                            |                          |                            |   |                                      | Boron  | /                    | /                 | 2.1                  | /                 |     |     |
|           |              |               |                      |                    |   |                |                          |                            |                          |                            |   |                                      | Cadmium  | 0.088                | /                 | 0.14                 | /                 |     |     |
|           |              |               |                      |                    |   |                |                          |                            |                          |                            |   |                                      | Chromium   | /                    | /                 | 11.5                 | /                 |     |     |
|           |              |               |                      |                    |   |                |                          |                            |                          |                            |   |                                      | Cobalt   | /                    | /                 | 7.6                  | /                 |     |     |
|           |              |               |                      |                    |   |                |                          |                            |                          |                            |   |                                      | Copper   | /                    | /                 | 15.2                 | /                 |     |     |
|           |              |               |                      |                    |   |                |                          |                            |                          |                            |   |                                      | Hexavalent chromium  | 0.154                | /                 | /                    | /                 |     |     |
|           |              |               |                      |                    |   |                |                          |                            |                          |                            |   |                                      | Lead   | /                    | /                 | 4.7                  | /                 |     |     |
|           |              |               |                      |                    |   |                |                          |                            |                          |                            |   |                                      | Manganese  | /                    | /                 | 342                  | /                 |     |     |
|           |              |               |                      |                    |   |                |                          |                            |                          |                            |   |                                      | Mercury  | /                    | /                 | 0.0034               | /                 |     |     |
|           |              |               |                      |                    |   |                |                          |                            |                          |                            |   |                                      | Molybdenum   | 0.35                 | /                 | /                    | /                 |     |     |
|           |              |               |                      |                    |   |                |                          |                            |                          |                            |   |                                      | Nickel   | /                    | /                 | 11.9                 | /                 |     |     |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code | Site Type    | Operable Unit | Site Dimensions (m) | Dates of Operation | Site History  | Class Status   | Decision/Closeout Report | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration |                            |                      |                   |        |   |
|-----------|--------------|---------------|---------------------|--------------------|---|----------------|--------------------------|----------------------------|--------------------------|----------------------------|---|--------------------------------------|-----------------------|----------------------------|----------------------|-------------------|--------|---|
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | (pCi/g, mg/kg)        |                            | 95% UCL              |                   |        |   |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Shallow <sup>a</sup>  | Deep <sup>b</sup>          | Shallow <sup>a</sup> | Deep <sup>b</sup> |        |   |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | COC                   |                            |                      |                   |        |   |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | Selenium                   | 1.1                  | /                 | /      | / |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | Silver                     | 0.19                 | /                 | /      | / |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | Vanadium                   | /                    | /                 | 53.6   | / |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | Zinc                       | /                    | /                 | 45.5   | / |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | 4,4"DDE                    | /                    | 0.00051           | /      | / |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | Acetone                    | 0.0092               | /                 | /      | / |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | Aroclor-1260               | 0.036                | /                 | /      | / |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | Benzo(a)pyrene             | 0.077                | /                 | /      | / |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | Benzo(b)fluoranthene       | 0.032                | /                 | /      | / |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | Benzo(ghi)perylene         | 0.0028               | /                 | /      | / |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | Bis(2-ethylhexyl)phthalate | 0.081                | /                 | /      | / |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | Chloroform                 | 0.087                | /                 | /      | / |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | Diethyl phthalate          | 0.4                  | /                 | /      | / |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | Dimethyl phthalate         | 0.05                 | /                 | 0.086  | / |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | Ethyl benzene              | 0.00064              | /                 | /      | / |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | Methylene chloride         | 0.002                | /                 | /      | / |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | Toluene                    | 0.0014               | /                 | /      | / |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | TPH-diesel range           | 28                   | /                 | /      | / |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | TPH-diesel range- EXT      | 3.3                  | /                 | 15.132 | / |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | Xylenes (total)            | 2.7                  | /                 | /      | / |
| 130-D-1   | Storage Tank | 100-DR-1      | 3.7 x 1.2 (dia.)    | 1944-1968          | Site had been a steel UST with a capacity of 15,140 L (4,000 gal). Tank was removed in 1989. Tank was used for storage of leaded gasoline. Site was contaminated with petroleum hydrocarbons. Site was backfilled with clean soil without removal of contaminated soil. | Interim Closed | WSRF/RSVP-2011-045       | 21-Jul-10                  | 15-Apr-11                | 1-Feb-11                   | N/A   | 3.5                                  |                       | Arsenic                    | /                    | /                 | 2.9    | / |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | Barium                     | /                    | /                 | 83.1   | / |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | Beryllium                  | /                    | /                 | 0.21   | / |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | Boron                      | /                    | /                 | 2.1    | / |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | Cadmium                    | 0.088                | /                 | 0.14   | / |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | Chromium                   | /                    | /                 | 11.5   | / |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | Cobalt                     | /                    | /                 | 7.6    | / |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | Copper                     | /                    | /                 | 15.2   | / |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | Hexavalent chromium        | 0.154                | /                 | /      | / |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | Lead                       | /                    | /                 | 4.7    | / |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | Manganese                  | /                    | /                 | 342    | / |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | Mercury                    | /                    | /                 | 0.0034 | / |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | Molybdenum                 | 0.35                 | /                 | /      | / |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | Nickel                     | /                    | /                 | 11.9   | / |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | Vanadium                   | /                    | /                 | 53.6   | / |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | Zinc                       | /                    | /                 | 45.5   | / |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | 4,4"DDE                    | /                    | 0.00051           | /      | / |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | Acetone                    | 0.0092               | /                 | /      | / |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | Methylene chloride         | 0.036                | /                 | /      | / |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | Toluene                    |                      |                   |        |   |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | 1,1-dichloroethene         |                      |                   |        |   |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | Acenaphthene               |                      |                   |        |   |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | Benzo(a)anthracene         |                      |                   |        |   |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | Benzo(a)pyrene             | 0.077                |                   |        |   |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | Benzo(b)fluoranthene       | 0.032                | /                 | /      | / |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | Benzo(ghi)perylene         | 0.0028               | /                 | /      | / |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | Bis(2-ethylhexyl)phthalate | 0.081                | /                 | /      | / |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | Benzo(k)fluoranthene       | 0.087                | /                 | /      | / |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | Chrysene                   |                      |                   |        |   |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | Indeno(1,2,3-cd)pyrene     |                      |                   |        |   |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | Phenanthrene               |                      |                   |        |   |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | Pyrene                     |                      |                   |        |   |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                       | Bis(2-                     |                      |                   |        |   |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code           | Site Type          | Operable Unit | Site Dimensions (m)              | Dates of Operation | Site History  | Class Status   | Decision/Closeout Report | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration |         |   |   | 95% UCL              |                   |                      |                   |  |  |  |  |  |
|---------------------|--------------------|---------------|----------------------------------|--------------------|---|----------------|--------------------------|----------------------------|--------------------------|----------------------------|---|--------------------------------------|-----------------------|---------|---|---|----------------------|-------------------|----------------------|-------------------|--|--|--|--|--|
|                     |                    |               |                                  |                    |   |                |                          |                            |                          |                            |   |                                      | (pCi/g, mg/kg)        |         |   |   | (pCi/g, mg/kg)       |                   |                      |                   |  |  |  |  |  |
|                     |                    |               |                                  |                    |   |                |                          |                            |                          |                            |   |                                      | COC                   |         |   |   | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |  |  |  |  |  |
| 132-D-1             | Process Unit/Plant | 100-DR-1      | 51.2 x 29.9 x 3.4<br><br>46 x 20 | 1944-1967          | The facility was built in 1943 to house the equipment used to recirculate, filter, dry, and inject the cover gases for the 105-D and 105-DR Reactor cores. The concrete facility was demolished in place in 1986 using allowable residual contamination level (ARCL) methodology. | Interim Closed | WSRF/RSVP-2005-037       | Mar-10                     | Mar-11                   | Jun-11                     | 11,370 BCM                                      | 4.5                                  | Diethyl phthalate     | 0.4     | / | / | /                    | /                 |                      |                   |  |  |  |  |  |
|                     |                    |               |                                  |                    |   |                |                          |                            |                          |                            |   |                                      | Aroclor-1260          | 0.05    | / | / | 0.086                | /                 |                      |                   |  |  |  |  |  |
|                     |                    |               |                                  |                    |   |                |                          |                            |                          |                            |   |                                      | Carbon-14             | /       | / | / | 0.385                | /                 |                      |                   |  |  |  |  |  |
|                     |                    |               |                                  |                    |   |                |                          |                            |                          |                            |   |                                      | Cesium-137            | /       | / | / | 0.086                | /                 |                      |                   |  |  |  |  |  |
|                     |                    |               |                                  |                    |   |                |                          |                            |                          |                            |   |                                      | Tritium               | /       | / | / | 0.474                | /                 |                      |                   |  |  |  |  |  |
|                     |                    |               |                                  |                    |   |                |                          |                            |                          |                            |   |                                      | Uranium-233/234       | /       | / | / | 0.223                | /                 |                      |                   |  |  |  |  |  |
|                     |                    |               |                                  |                    |   |                |                          |                            |                          |                            |   |                                      | Uranium-238           | /       | / | / | 0.197                | /                 |                      |                   |  |  |  |  |  |
|                     |                    |               |                                  |                    |   |                |                          |                            |                          |                            |   |                                      | Arsenic               | /       | / | / | 2.600                | /                 |                      |                   |  |  |  |  |  |
|                     |                    |               |                                  |                    |   |                |                          |                            |                          |                            |   |                                      | Barium                | /       | / | / | 63.300               | /                 |                      |                   |  |  |  |  |  |
|                     |                    |               |                                  |                    |   |                |                          |                            |                          |                            |   |                                      | Boron                 | 1.300   | / | / | /                    | /                 |                      |                   |  |  |  |  |  |
|                     |                    |               |                                  |                    |   |                |                          |                            |                          |                            |   |                                      | Cadmium               | /       | / | / | 0.059                | /                 |                      |                   |  |  |  |  |  |
|                     |                    |               |                                  |                    |   |                |                          |                            |                          |                            |   |                                      | Chromium (total)      | /       | / | / | 6.900                | /                 |                      |                   |  |  |  |  |  |
|                     |                    |               |                                  |                    |   |                |                          |                            |                          |                            |   |                                      | Cobalt                | /       | / | / | 10.500               | /                 |                      |                   |  |  |  |  |  |
|                     |                    |               |                                  |                    |   |                |                          |                            |                          |                            |   |                                      | Copper                | /       | / | / | 16.600               | /                 |                      |                   |  |  |  |  |  |
|                     |                    |               |                                  |                    |   |                |                          |                            |                          |                            |   |                                      | Hexavalent chromium   | 0.164   | / | / | /                    | /                 |                      |                   |  |  |  |  |  |
|                     |                    |               |                                  |                    |   |                |                          |                            |                          |                            |   |                                      | Lead                  | /       | / | / | 5.100                | /                 |                      |                   |  |  |  |  |  |
|                     |                    |               |                                  |                    |   |                |                          |                            |                          |                            |   |                                      | Manganese             | /       | / | / | 314.000              | /                 |                      |                   |  |  |  |  |  |
|                     |                    |               |                                  |                    |   |                |                          |                            |                          |                            |   |                                      | Mercury               | /       | / | / | 1.700                | /                 |                      |                   |  |  |  |  |  |
|                     |                    |               |                                  |                    |   |                |                          |                            |                          |                            |   |                                      | Molybdenum            | 0.580   | / | / | /                    | /                 |                      |                   |  |  |  |  |  |
|                     |                    |               |                                  |                    |   |                |                          |                            |                          |                            |   |                                      | Nickel                | /       | / | / | 9.400                | /                 |                      |                   |  |  |  |  |  |
|                     |                    |               |                                  |                    |   |                |                          |                            |                          |                            |   |                                      | Selenium              | 0.860   | / | / | /                    | /                 |                      |                   |  |  |  |  |  |
|                     |                    |               |                                  |                    |   |                |                          |                            |                          |                            |   |                                      | Vanadium              | /       | / | / | 70.100               | /                 |                      |                   |  |  |  |  |  |
|                     |                    |               |                                  |                    |   |                |                          |                            |                          |                            |   |                                      | Zinc                  | /       | / | / | 48,200               | /                 |                      |                   |  |  |  |  |  |
|                     |                    |               |                                  |                    |   |                |                          |                            |                          |                            |   |                                      | Aroclor-1254          | 6.300   | / | / | /                    | /                 |                      |                   |  |  |  |  |  |
|                     |                    |               |                                  |                    |   |                |                          |                            |                          |                            |   |                                      | Aroclor-1260          | 230.000 | / | / | /                    | /                 |                      |                   |  |  |  |  |  |
|                     |                    |               |                                  |                    |   |                |                          |                            |                          |                            |   |                                      | Benzo(b)fluoranthene  | 4.000   | / | / | /                    | /                 |                      |                   |  |  |  |  |  |
|                     |                    |               |                                  |                    |   |                |                          |                            |                          |                            |   |                                      | Chrysene              | 4.900   | / | / | /                    | /                 |                      |                   |  |  |  |  |  |
|                     |                    |               |                                  |                    |   |                |                          |                            |                          |                            |   |                                      | Staging Pile          |         |   |   |                      |                   |                      |                   |  |  |  |  |  |
|                     |                    |               |                                  |                    |   |                |                          |                            |                          |                            |   |                                      | Cesium-137            | /       | / | / | 0.152                | /                 |                      |                   |  |  |  |  |  |
|                     |                    |               |                                  |                    |   |                |                          |                            |                          |                            |   |                                      | Tritium               | /       | / | / | 0.041                | /                 |                      |                   |  |  |  |  |  |
|                     |                    |               |                                  |                    |   |                |                          |                            |                          |                            |   |                                      | Uranium-233/234       | /       | / | / | 0.200                | /                 |                      |                   |  |  |  |  |  |
|                     |                    |               |                                  |                    |   |                |                          |                            |                          |                            |   |                                      | Uranium-238           | /       | / | / | 0.173                | /                 |                      |                   |  |  |  |  |  |
|                     |                    |               |                                  |                    |   |                |                          |                            |                          |                            |   |                                      | Arsenic               | /       | / | / | 3.540                | /                 |                      |                   |  |  |  |  |  |
|                     |                    |               |                                  |                    |   |                |                          |                            |                          |                            |   |                                      | Barium                | /       | / | / | 65.900               | /                 |                      |                   |  |  |  |  |  |
|                     |                    |               |                                  |                    |   |                |                          |                            |                          |                            |   |                                      | Beryllium             | 0.051   | / | / | /                    | /                 |                      |                   |  |  |  |  |  |
|                     |                    |               |                                  |                    |   |                |                          |                            |                          |                            |   |                                      | Boron                 | 1.500   | / | / | /                    | /                 |                      |                   |  |  |  |  |  |
| Cadmium             | /                  | /             | /                                | 0.092              | /   |                |                          |                            |                          |                            |   |                                      |                       |         |   |   |                      |                   |                      |                   |  |  |  |  |  |
| Chromium (total)    | /                  | /             | /                                | 8.500              | /   |                |                          |                            |                          |                            |   |                                      |                       |         |   |   |                      |                   |                      |                   |  |  |  |  |  |
| Cobalt              | /                  | /             | /                                | 9.200              | /   |                |                          |                            |                          |                            |   |                                      |                       |         |   |   |                      |                   |                      |                   |  |  |  |  |  |
| Copper              | /                  | /             | /                                | 16.000             | /   |                |                          |                            |                          |                            |   |                                      |                       |         |   |   |                      |                   |                      |                   |  |  |  |  |  |
| Hexavalent chromium | 0.186              | /             | /                                | /                  | /   |                |                          |                            |                          |                            |   |                                      |                       |         |   |   |                      |                   |                      |                   |  |  |  |  |  |
| Lead                | /                  | /             | /                                | 6.900              | /   |                |                          |                            |                          |                            |   |                                      |                       |         |   |   |                      |                   |                      |                   |  |  |  |  |  |
| Manganese           | /                  | /             | /                                | 300.000            | /   |                |                          |                            |                          |                            |   |                                      |                       |         |   |   |                      |                   |                      |                   |  |  |  |  |  |
| Mercury             | /                  | /             | /                                | 4.400              | /   |                |                          |                            |                          |                            |   |                                      |                       |         |   |   |                      |                   |                      |                   |  |  |  |  |  |
| Molybdenum          | 0.240              | /             | /                                | /                  | /   |                |                          |                            |                          |                            |   |                                      |                       |         |   |   |                      |                   |                      |                   |  |  |  |  |  |
| Nickel              | /                  | /             | /                                | 10.800             | /   |                |                          |                            |                          |                            |   |                                      |                       |         |   |   |                      |                   |                      |                   |  |  |  |  |  |
| Vanadium            | /                  | /             | /                                | 57.900             | /   |                |                          |                            |                          |                            |   |                                      |                       |         |   |   |                      |                   |                      |                   |  |  |  |  |  |
| Zinc                | /                  | /             | /                                | 48.600             | /   |                |                          |                            |                          |                            |   |                                      |                       |         |   |   |                      |                   |                      |                   |  |  |  |  |  |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code | Site Type          | Operable Unit | Site Dimensions (m)    | Dates of Operation | Site History  | Class Status   | Decision/Closeout Report        | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m)   | Maximum Concentration   |                      |                   |                      | 95% UCL           |  |
|-----------|--------------------|---------------|------------------------|--------------------|---|----------------|---------------------------------|----------------------------|--------------------------|----------------------------|---|--|---|----------------------|-------------------|----------------------|-------------------|--|
|           |                    |               |                        |                    |   |                |                                 |                            |                          |                            |   |  | COC   | (pCi/g, mg/kg)       |                   | (pCi/g, mg/kg)       |                   |  |
|           |                    |               |                        |                    |   |                |                                 |                            |                          |                            |   |  |   | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |  |
|           |                    |               |                        |                    |   |                |                                 |                            |                          |                            |   |  | Aroclor-1248  | 0.035                | /                 | /                    | /                 |  |
|           |                    |               |                        |                    |   |                |                                 |                            |                          |                            |   |  | Aroclor-1254  | 0.010                | /                 | /                    | /                 |  |
|           |                    |               |                        |                    |   |                |                                 |                            |                          |                            |   |  | Aroclor-1260  | 0.048                | /                 | /                    | /                 |  |
|           |                    |               |                        |                    |   |                |                                 |                            |                          |                            |   |  | Bis(2-ethylhexyl)phthalate  | /                    | /                 | 0.082                | /                 |  |
|           |                    |               |                        |                    |   |                |                                 |                            |                          |                            |   |  | Diethyl phthalate   | /                    | /                 | 0.450                | /                 |  |
|           |                    |               |                        |                    |   |                |                                 |                            |                          |                            |   |  | Di-n-octylphthalate   | 0.087                | /                 | /                    | /                 |  |
|           |                    |               |                        |                    |   |                |                                 |                            |                          |                            |   |  | Anthracene  | /                    | /                 | 0.036                | /                 |  |
|           |                    |               |                        |                    |   |                |                                 |                            |                          |                            |   |  | Benzo(a)anthracene  | /                    | /                 | 1.369                | /                 |  |
|           |                    |               |                        |                    |   |                |                                 |                            |                          |                            |   |  | Benzo(a)pyrene  | /                    | /                 | 0.047                | /                 |  |
|           |                    |               |                        |                    |   |                |                                 |                            |                          |                            |   |  | Benzo(b)fluoranthene  | /                    | /                 | 0.059                | /                 |  |
|           |                    |               |                        |                    |   |                |                                 |                            |                          |                            |   |  | Benzo(ghi)perylene  | /                    | /                 | 0.047                | /                 |  |
|           |                    |               |                        |                    |   |                |                                 |                            |                          |                            |   |  | Benzo(k)fluoranthene  | /                    | /                 | 0.270                | /                 |  |
|           |                    |               |                        |                    |   |                |                                 |                            |                          |                            |   |  | Chrysene  | /                    | /                 | 0.745                | /                 |  |
|           |                    |               |                        |                    |   |                |                                 |                            |                          |                            |   |  | Dibenz(a,h)anthracene   | 0.054                | /                 | /                    | /                 |  |
|           |                    |               |                        |                    |   |                |                                 |                            |                          |                            |   |  | Fluoranthene  | /                    | /                 | 1.321                | /                 |  |
|           |                    |               |                        |                    |   |                |                                 |                            |                          |                            |   |  | Fluorene  | 0.068                | /                 | /                    | /                 |  |
|           |                    |               |                        |                    |   |                |                                 |                            |                          |                            |   |  | Indeno(1,2,3-cd)pyrene  | /                    | /                 | 0.069                | /                 |  |
|           |                    |               |                        |                    |   |                |                                 |                            |                          |                            |   |  | Phenanthrene  | /                    | /                 | 0.114                | /                 |  |
|           |                    |               |                        |                    |   |                |                                 |                            |                          |                            |   |  | Pyrene  | /                    | /                 | 17.000               | /                 |  |
| 132-D-2   | Process Unit/Plant | 100-DR-1      | 18 x 11.9 x 8.2 (high) | 1961-1967          | Concrete structure built to receive exhaust discharges from the 105-D Reactor and filter the exhaust before the exhaust stack release into the atmosphere. The facility was demolished in 1986.   | Interim Closed | WSRF/RSVP-2005-024              | N/A                        | N/A                      | N/A                        | N/A   | Demolition rubble buried under 1m of clean fill dirt and rubble from seal pits buried under 5m of clean fill dirt. |   | 1985 activities      | decayed to 2005   |                      |                   |  |
|           |                    |               |                        |                    |   |                |                                 |                            |                          |                            |   |  | Carbon-14   | 573                  | 572               |                      |                   |  |
|           |                    |               |                        |                    |   |                |                                 |                            |                          |                            |   |  | Cesium-137  | 3,230                | 2,040             |                      |                   |  |
|           |                    |               |                        |                    |   |                |                                 |                            |                          |                            |   |  | Cobalt-60   | 1370                 | 98.7              |                      |                   |  |
|           |                    |               |                        |                    |   |                |                                 |                            |                          |                            |   |  | Europium-152  | 64                   | 23                |                      |                   |  |
|           |                    |               |                        |                    |   |                |                                 |                            |                          |                            |   |  | Tritium (H-3)   | 688                  | 223               |                      |                   |  |
|           |                    |               |                        |                    |   |                |                                 |                            |                          |                            |   |  | Plutonium-239   | 15                   | 15                |                      |                   |  |
|           |                    |               |                        |                    |   |                |                                 |                            |                          |                            |   |  | Strontium-90  | 561                  | 348               |                      |                   |  |
| 132-D-3   | Pump Station       | 100-DR-1      | 6.1 x 6.1 x 9.75       | 1944-1965          | Received liquid waste from reactor drains containing low-level radionuclides, sodium fluoride, oxalic acid, and citric acid. concrete structure that extended 9.8 m (32 ft) below grade and 1.2 m (4 ft) above grade. Demolished in place in 1986 and 1987.                       | Interim Closed | WSRF/RSVP-2005-033              | Dec. 1996                  | N/A                      | N/A                        | N/A   | rubble buried in situ under 1m of clean fill dirt  |   | 1985 activities      | decayed to 2005   |                      |                   |  |
|           |                    |               |                        |                    |   |                |                                 |                            |                          |                            |   |  | Carbon-14   | 14                   | 13.9              |                      |                   |  |
|           |                    |               |                        |                    |   |                |                                 |                            |                          |                            |   |  | Cesium-137  | 10,100               | 6,527             |                      |                   |  |
|           |                    |               |                        |                    |   |                |                                 |                            |                          |                            |   |  | Cobalt-60   | 1,630                | 134               |                      |                   |  |
|           |                    |               |                        |                    |   |                |                                 |                            |                          |                            |   |  | Europium-152  | 4,520                | 1,701             |                      |                   |  |
|           |                    |               |                        |                    |   |                |                                 |                            |                          |                            |   |  | Europium-154  | 599                  | 129               |                      |                   |  |
|           |                    |               |                        |                    |   |                |                                 |                            |                          |                            |   |  | Tritium (H-3)   | 19                   | 6.5               |                      |                   |  |
|           |                    |               |                        |                    |   |                |                                 |                            |                          |                            |   |  | Plutonium-239   | 98.5                 | 98.3              |                      |                   |  |
|           |                    |               |                        |                    |   |                |                                 |                            |                          |                            |   |  | Strontium-90  | 156                  | 99.2              |                      |                   |  |
| 132-D-4   | Stack              | 100-DR-1      | 5.05 dia.              | 1944-1967          | Site contains concrete rubble from demolition of the 105-D Reactor Stack. The stack was used to exhaust confinement air from the work areas of the 105-D Reactor and was demolished in 1999. The stack and its foundation were demolished with explosives and buried in a trench. | Interim Closed | WSRF 2005-022<br>CVP-2005-00003 | N/A                        | N/A                      | N/A                        | N/A   | N/A  | The 105-D Reactor Stack Foundation (132-D-4) did not require sampling and analysis based on the Environmental Restoration Disposal Facility waste profile developed from the 105-DR Reactor project and data from other stack demolition activities. It was removed to 0.9 m below grade at the same time the stack was demolished and disposed of at ERDF. |                      |                   |                      |                   |  |
| 132-DR-1  | Pump Station       | 100-DR-2      | 10.97 x 10.4 x 8.53    | 1950-1964          | This facility functioned as a sump to collect radioactive liquid wastes from the 105-DR Reactor to be discharged to the 107-D/DR Retention basin.   | Interim Closed | WSRF/RSVP-2005-035              | 1987                       | 1987                     | 1987                       | N/A   | Structure was demolished to at least 5m below grade with the resulting rubble buried in situ.                      |   | 1987 activities      | decayed to 2005   |                      |                   |  |
|           |                    |               |                        |                    |   |                |                                 |                            |                          |                            |   |  | Carbon-14   | 9.28                 | 9.26              | /                    | /                 |  |
|           |                    |               |                        |                    |   |                |                                 |                            |                          |                            |   |  | Cesium-137  | 6,090                | 4,016             | /                    | /                 |  |
|           |                    |               |                        |                    |   |                |                                 |                            |                          |                            |   |  | Cobalt-60   | 1,120                | 105               | /                    | /                 |  |
|           |                    |               |                        |                    |   |                |                                 |                            |                          |                            |   |  | Europium-152  | 4,160                | 1,631             | /                    | /                 |  |
|           |                    |               |                        |                    |   |                |                                 |                            |                          |                            |   |  | Europium-154  | 805                  | 195               | /                    | /                 |  |
|           |                    |               |                        |                    |   |                |                                 |                            |                          |                            |   |  | Tritium (H-3)   | 35.1                 | 10.24             | /                    | /                 |  |
|           |                    |               |                        |                    |   |                |                                 |                            |                          |                            |   |  | Plutonium-239/240   | 198.4                | 198.3             | /                    | /                 |  |
|           |                    |               |                        |                    |   |                |                                 |                            |                          |                            |   |  | Strontium-90  | 4,966                | 3,233             | /                    | /                 |  |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code                  | Site Type   | Operable Unit | Site Dimensions (m) | Dates of Operation | Site History   | Class Status   | Decision/Closeout Report        | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date                                  | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration |                      |                   |                      | 95% UCL           |  |
|----------------------------|-------------|---------------|---------------------|--------------------|--|----------------|---------------------------------|----------------------------|--------------------------|---|---|--------------------------------------|-----------------------|----------------------|-------------------|----------------------|-------------------|--|
|                            |             |               |                     |                    |  |                |                                 |                            |                          |   |   |                                      | COC                   | (pCi/g, mg/kg)       |                   | (pCi/g, mg/kg)       |                   |  |
|                            |             |               |                     |                    |  |                |                                 |                            |                          |   |   |                                      |                       | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |  |
| 132-DR-2                   | Stack       | 100-DR-2      | 60.9 x 5.05 dia.    | 1950-1964          | Former 116-DR exhaust stack for the 105-DR Reactor and, subsequently, the Large Sodium Fire Facility (LSFF). Usage for the LSFF is addressed by the 105-DR-15.   | Interim Closed | WSRF 2003-053<br>CVP-2003-00018 | Jul. 2003                  | Jul. 2003                | Aug. 8, 2003  | 14, 011   | 4.6                                  | Refer to 122-DR-1:2   |                      |                   |                      |                   |  |
| 1607-D1                    | Septic Tank | 100-DR-2      | 4.27 x 2.13 x 3.4   | 1944-1965          | This site is a concrete tank (capacity of 16,250 L) with drain field that received sanitary sewage from 1701-D badge house and 1709-D Fire Headquarters Building.  | Interim Closed | WSRF 2011-120                   | Dec-10                     | Feb-11                   | Dec-11  | 3705 BCM  | 3.5                                  | Arsenic               | /                    | /                 | 3.83                 | /                 |  |
|                            |             |               |                     |                    |  |                |                                 |                            |                          |   |   |                                      | Barium                | /                    | /                 | 68.54                | /                 |  |
|                            |             |               |                     |                    |  |                |                                 |                            |                          |   |   |                                      | Beryllium             | /                    | /                 | 0.25                 | /                 |  |
|                            |             |               |                     |                    |  |                |                                 |                            |                          |   |   |                                      | Boron                 | 1.70                 | /                 | 1.25                 | /                 |  |
|                            |             |               |                     |                    |  |                |                                 |                            |                          |   |   |                                      | Cadmium               | /                    | /                 | 0.08                 | /                 |  |
|                            |             |               |                     |                    |  |                |                                 |                            |                          |   |   |                                      | Chromium (total)      | /                    | /                 | 13.38                | /                 |  |
|                            |             |               |                     |                    |  |                |                                 |                            |                          |   |   |                                      | Cobalt                | /                    | /                 | 5.73                 | /                 |  |
|                            |             |               |                     |                    |  |                |                                 |                            |                          |   |   |                                      | Copper                | /                    | /                 | 12.92                | /                 |  |
|                            |             |               |                     |                    |  |                |                                 |                            |                          |   |   |                                      | Lead                  | /                    | /                 | 4.19                 | /                 |  |
|                            |             |               |                     |                    |  |                |                                 |                            |                          |   |   |                                      | Manganese             | /                    | /                 | 283.07               | /                 |  |
|                            |             |               |                     |                    |  |                |                                 |                            |                          |   |   |                                      | Mercury               | 0.01                 | /                 | /                    | /                 |  |
|                            |             |               |                     |                    |  |                |                                 |                            |                          |   |   |                                      | Nickel                | /                    | /                 | 11.73                | /                 |  |
|                            |             |               |                     |                    |  |                |                                 |                            |                          |   |   |                                      | Vanadium              | /                    | /                 | 38.13                | /                 |  |
|                            |             |               |                     |                    |  |                |                                 |                            |                          |   |   |                                      | Zinc                  | /                    | /                 | 35.74                | /                 |  |
|                            |             |               |                     |                    |  |                |                                 |                            |                          |   |   |                                      | Chloride              | 3.70                 | /                 | /                    | /                 |  |
|                            |             |               |                     |                    |  |                |                                 |                            |                          |   |   |                                      | Fluoride              | 0.99                 | /                 | /                    | /                 |  |
|                            |             |               |                     |                    |  |                |                                 |                            |                          |   |   |                                      | Nitrate as Nitrogen   | 2.70                 | /                 | 1.02                 | /                 |  |
| Nitrite as Nitrogen        | 3.30        | /             | 1.19                | /                  |  |                |                                 |                            |                          |   |   |                                      |                       |                      |                   |                      |                   |  |
| Sulfate                    | 3.10        | /             | 4.06                | /                  |  |                |                                 |                            |                          |   |   |                                      |                       |                      |                   |                      |                   |  |
| Bis(2-ethylhexyl)phthalate | /           | /             | 0.09                | /                  |  |                |                                 |                            |                          |   |   |                                      |                       |                      |                   |                      |                   |  |
| Dimethyl phthalate         | /           | /             | 0.18                | /                  |  |                |                                 |                            |                          |   |   |                                      |                       |                      |                   |                      |                   |  |
| 1607-D2:1                  | Septic Tank | 100-DR-1      | 36 x 35             | 1944-1950          | The 1607-D2:1 subsite was the original 1944 septic tile field for the 1607-D2 septic system. This tile field was abandoned and partially removed for construction of the 116-DR-9 retention basin in 1950. | Interim Closed | WSRF 98-035<br>CVP-98-00005     | Jan. 8, 1998               | Feb. 4, 1998             | Not documented in the CVP                                   | 10,040  | 3.4                                  | Europium-152          | 0.0295 U             | /                 | /                    | /                 |  |
|                            |             |               |                     |                    |  |                |                                 |                            |                          |   |   |                                      | Uranium-235           | 0.0464 J             | /                 | /                    | /                 |  |
|                            |             |               |                     |                    |  |                |                                 |                            |                          |   |   |                                      | Uranium-238           | 0.762 J              | /                 | /                    | /                 |  |
|                            |             |               |                     |                    |  |                |                                 |                            |                          |   |   |                                      | Hexavalent Chromium   | 0.030 UJ             | /                 | /                    | /                 |  |
|                            |             |               |                     |                    |  |                |                                 |                            |                          |   |   |                                      | Lead                  | 1.9                  | /                 | /                    | /                 |  |
|                            |             |               |                     |                    |  |                |                                 |                            |                          |   |   |                                      | Mercury               | 0.021 U              | /                 | /                    | /                 |  |
|                            |             |               |                     |                    |  |                |                                 |                            |                          |   |   |                                      | PCBs(1260)            | 0.040 U              | /                 | /                    | /                 |  |
| 1607-D2:2                  | Septic Tank | 100-DR-1      | Not Documented      | 1950-1996          | The 1607-D2:2 subsite was the drain field put into service in 1950 to replace the original drain field (1607-D2:1) and was used until 1996.  | Interim Closed | WSRF 2009-036<br>CVP-2009-00006 | Apr. 7, 2008               | Apr. 23, 2008            | Oct. 7 to Dec. 16, 2008 and on May 4, 2009 only for Mercury | 3,471 BCM                                       | <4.6                                 | Cesium-137            | 0.354                | /                 | 0.12                 | /                 |  |
|                            |             |               |                     |                    |  |                |                                 |                            |                          |   |   |                                      | Uranium-233/234       | 1.13                 | /                 | 0.823                | /                 |  |
|                            |             |               |                     |                    |  |                |                                 |                            |                          |   |   |                                      | Uranium-238           | 1.2                  | /                 | 0.907                | /                 |  |
|                            |             |               |                     |                    |  |                |                                 |                            |                          |   |   |                                      | Antimony              | 1.9                  | /                 | 1.2                  | /                 |  |
|                            |             |               |                     |                    |  |                |                                 |                            |                          |   |   |                                      | Arsenic               | 4.1                  | /                 | 3.5                  | /                 |  |
|                            |             |               |                     |                    |  |                |                                 |                            |                          |   |   |                                      | Barium                | 402                  | /                 | 158                  | /                 |  |
|                            |             |               |                     |                    |  |                |                                 |                            |                          |   |   |                                      | Beryllium             | 0.4                  | /                 | 0.3                  | /                 |  |
|                            |             |               |                     |                    |  |                |                                 |                            |                          |   |   |                                      | Boron                 | 2.6                  | /                 | 2                    | /                 |  |
|                            |             |               |                     |                    |  |                |                                 |                            |                          |   |   |                                      | Cadmium               | 0.6                  | /                 | 0.4                  | /                 |  |
|                            |             |               |                     |                    |  |                |                                 |                            |                          |   |   |                                      | Chromium Total        | 34.0 B               | /                 | 19.2                 | /                 |  |
|                            |             |               |                     |                    |  |                |                                 |                            |                          |   |   |                                      | Hexavalent Chromium   | 0.3                  | /                 | 0.3                  | /                 |  |
|                            |             |               |                     |                    |  |                |                                 |                            |                          |   |   |                                      | Cobalt                | 8.3                  | /                 | 7.9                  | /                 |  |
|                            |             |               |                     |                    |  |                |                                 |                            |                          |   |   |                                      | Copper                | 44.7                 | /                 | 24.8                 | /                 |  |
|                            |             |               |                     |                    |  |                |                                 |                            |                          |   |   |                                      | Lead                  | 17.8 B               | /                 | 8.2                  | /                 |  |
|                            |             |               |                     |                    |  |                |                                 |                            |                          |   |   |                                      | Manganese             | 370                  | /                 | 344                  | /                 |  |
|                            |             |               |                     |                    |  |                |                                 |                            |                          |   |   |                                      | Mercury               | 1.24                 | /                 | 0.383                | /                 |  |
|                            |             |               |                     |                    |  |                |                                 |                            |                          |   |   |                                      | Molybdenum            | 1.0 B                | /                 | 0.6                  | /                 |  |
|                            |             |               |                     |                    |  |                |                                 |                            |                          |   |   |                                      | Nickel                | 14.8                 | /                 | 13.3                 | /                 |  |
|                            |             |               |                     |                    |  |                |                                 |                            |                          |   |   |                                      | Silver                | 11.8                 | /                 | 11.8                 | /                 |  |
|                            |             |               |                     |                    |  |                |                                 |                            |                          |   |   |                                      | Vanadium              | 74.3                 | /                 | 68.2                 | /                 |  |
| Zinc                       | 157         | /             | 88.3                | /                  |  |                |                                 |                            |                          |   |   |                                      |                       |                      |                   |                      |                   |  |
| Chloride                   | 14.3        | /             | 5.3                 | /                  |  |                |                                 |                            |                          |   |   |                                      |                       |                      |                   |                      |                   |  |
| Nitrate (as nitrogen)      | 74.2 D      | /             | 515                 | /                  |  |                |                                 |                            |                          |   |   |                                      |                       |                      |                   |                      |                   |  |
| Sulfate                    | 84.5        | /             | 115                 | /                  |  |                |                                 |                            |                          |   |   |                                      |                       |                      |                   |                      |                   |  |
| Aroclor-1254               | 11.9 J      | /             | 0.447               | /                  |  |                |                                 |                            |                          |   |   |                                      |                       |                      |                   |                      |                   |  |
| Aroclor-1260               | 6.64 J      | /             | 0.188               | /                  |  |                |                                 |                            |                          |   |   |                                      |                       |                      |                   |                      |                   |  |
| 1607-D2:3                  | Septic Tank | 100-DR-1      | 235 linear m        | 1944               | The 1607-D2:3 subsite includes the   | Interim Closed | WSRF 2000-069                   | Aug. 20, 1999              | Aug. 30, 1999            | Verification  | Not Documented                                  | 4.6                                  |                       | Shallow              | Overburden        |                      |                   |  |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code | Site Type   | Operable Unit | Site Dimensions (m) | Dates of Operation | Site History  | Class Status   | Decision/Closeout Report    | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date                       | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration   |                      |                   |                      |                   |     |     |
|-----------|-------------|---------------|---------------------|--------------------|---|----------------|-----------------------------|----------------------------|--------------------------|--|---|--------------------------------------|---|----------------------|-------------------|----------------------|-------------------|-----|-----|
|           |             |               |                     |                    |   |                |                             |                            |                          |  |   |                                      | COC   | (pCi/g, mg/kg)       |                   | 95% UCL              |                   |     |     |
|           |             |               |                     |                    |   |                |                             |                            |                          |  |   |                                      |   | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |     |     |
|           |             |               |                     |                    | pipeline between the end of the 100-D-31:1 pipeline and the 1607-D2:4 septic tank and between that septic tank and the 1607-D2:5 pipeline.  |                | CVP-2000-00004              |                            |                          | samples Nov. 30, 1999<br>Overburden Dec. 9, 1999 |   |                                      |   |                      |                   |                      |                   |     |     |
| 1607-D2:4 | Septic Tank | 100-DR-1      | 8.1 x 3.7 x 4.1     | 1944-1996          | The 1607-D2:4 subsite includes the 1607-D2 septic tank that formerly services the 105-D, 182-D, 183-D, 185-D, 189-D, 190-DA, and various 1700-D series facilities.  | Interim Closed | WSRF 99-043<br>CVP-99-00005 | Jul. 17, 1998              | Oct. 27, 1998            |  | 2,041   | 4.7                                  | Chromium Total  | 6.1                  | /                 | 6                    | /                 |     |     |
|           |             |               |                     |                    |   |                |                             |                            |                          |  |   |                                      | Mercury   | 0.02 U               | /                 | 0.02 U               | /                 |     |     |
|           |             |               |                     |                    |   |                |                             |                            |                          |  |   |                                      | Lead  | 4                    | /                 | 3.5                  | /                 |     |     |
| 1607-D2:5 | Septic Tank | 100-DR-1      | 55 linear m         | 1944-1994          | The 1607-D2:5 subsite consists of a pipeline segment that was not previously included in other subsites, extending from the end of the 1607-D2:3 pipeline (approximately at the perimeter road) north to the 1607-D2:2 subsite. | Accepted       | Not Documented              | N/A                        | N/A                      | N/A  | N/A   | N/A                                  | N/A   | N/A                  | N/A               | N/A                  | N/A               | N/A | N/A |
| 1607-D3   | Septic Tank | 100-DR-2      | 1.83 x .91 x 3      | 1944-2000          | This site is a concrete tank with drain field. Received 3,970 L (1,048 gal)/day sanitary sewage from the 151-D Electrical Distribution Substation.  | Closed Out     | WSRF 2000-122               | N/A                        | N/A                      | N/A  | N/A   | N/A                                  | All contents removed from tank and was abandoned in accordance with WAC 246-272-18501 and closed out. |                      |                   |                      |                   |     |     |
| 1607-D4   | Septic Tank | 100-DR-1      | 0.6 x 1.2 x 2.5     | 1944-1968          | This site is a concrete tank with drain field. Received sanitary sewage from 115-D/DR Gas Recirculation Building.   | Interim Closed | WSRF/RSVP-2005-036          | N/A                        | N/A                      | confirmatory sampling done on Jul. 5, 2005       | N/A   | N/A                                  | Uranium-233/234   | 0.53                 | /                 | /                    | /                 |     |     |
|           |             |               |                     |                    |   |                |                             |                            |                          |  |   |                                      | Uranium-235   | 0.024                | /                 | /                    | /                 |     |     |
|           |             |               |                     |                    |   |                |                             |                            |                          |  |   |                                      | Uranium-238   | 0.53                 | /                 | /                    | /                 |     |     |
|           |             |               |                     |                    |   |                |                             |                            |                          |  |   |                                      | Antimony  | 0.48                 | /                 | /                    | /                 |     |     |
|           |             |               |                     |                    |   |                |                             |                            |                          |  |   |                                      | Arsenic   | 4.2                  | /                 | /                    | /                 |     |     |
|           |             |               |                     |                    |   |                |                             |                            |                          |  |   |                                      | Barium  | 54 C                 | /                 | /                    | /                 |     |     |
|           |             |               |                     |                    |   |                |                             |                            |                          |  |   |                                      | Beryllium   | 0.9                  | /                 | /                    | /                 |     |     |
|           |             |               |                     |                    |   |                |                             |                            |                          |  |   |                                      | Boron   | 2.7 C                | /                 | /                    | /                 |     |     |
|           |             |               |                     |                    |   |                |                             |                            |                          |  |   |                                      | Cadmium   | 0.35                 | /                 | /                    | /                 |     |     |
|           |             |               |                     |                    |   |                |                             |                            |                          |  |   |                                      | Chromium Total  | 8.8 C                | /                 | /                    | /                 |     |     |
|           |             |               |                     |                    |   |                |                             |                            |                          |  |   |                                      | Cobalt  | 7.4                  | /                 | /                    | /                 |     |     |
|           |             |               |                     |                    |   |                |                             |                            |                          |  |   |                                      | Copper  | 16.4                 | /                 | /                    | /                 |     |     |
|           |             |               |                     |                    |   |                |                             |                            |                          |  |   |                                      | Lead  | 5 C                  | /                 | /                    | /                 |     |     |
|           |             |               |                     |                    |   |                |                             |                            |                          |  |   |                                      | Manganese   | 269 C                | /                 | /                    | /                 |     |     |
|           |             |               |                     |                    |   |                |                             |                            |                          |  |   |                                      | Mercury   | 0.07 C               | /                 | /                    | /                 |     |     |
|           |             |               |                     |                    |   |                |                             |                            |                          |  |   |                                      | Molybdenum  | 0.34                 | /                 | /                    | /                 |     |     |
|           |             |               |                     |                    |   |                |                             |                            |                          |  |   |                                      | Nickel  | 11.2                 | /                 | /                    | /                 |     |     |
|           |             |               |                     |                    |   |                |                             |                            |                          |  |   |                                      | Uranium (total)   | 1.58                 | /                 | /                    | /                 |     |     |
|           |             |               |                     |                    |   |                |                             |                            |                          |  |   |                                      | Vanadium  | 54.5                 | /                 | /                    | /                 |     |     |
|           |             |               |                     |                    |   |                |                             |                            |                          |  |   |                                      | Zinc  | 44.2                 | /                 | /                    | /                 |     |     |
|           |             |               |                     |                    |   |                |                             |                            |                          |  |   |                                      | Nitrate (as nitrogen)   | 2.6                  | /                 | /                    | /                 |     |     |
|           |             |               |                     |                    |   |                |                             |                            |                          |  |   |                                      | Sulfate   | 5.2                  | /                 | /                    | /                 |     |     |
|           |             |               |                     |                    |   |                |                             |                            |                          |  |   |                                      | Aroclor-1254  | 0.034                | /                 | /                    | /                 |     |     |
|           |             |               |                     |                    |   |                |                             |                            |                          |  |   |                                      | Di-n-butylphthalate   | 0.08 JB              | /                 | /                    | /                 |     |     |
| 1607-D5   | Septic Tank | 100-DR-1      | 1.2 x 0.6           | 1944-1998          | This site is a concrete tank (capacity of 130 L [35 gal]) with drain field. Received sanitary sewage from the 181-D Pump House.   | Interim Closed | WSRF-2011-070               | Oct-10                     | Oct-10                   | Apr-11   | 500 BCM   | 3.3                                  | Arsenic   | /                    | /                 | 3.54                 | /                 |     |     |
|           |             |               |                     |                    |   |                |                             |                            |                          |  |   |                                      | Barium  | /                    | /                 | 1119.35              | /                 |     |     |
|           |             |               |                     |                    |   |                |                             |                            |                          |  |   |                                      | Beryllium   | /                    | /                 | 1.55                 | /                 |     |     |
|           |             |               |                     |                    |   |                |                             |                            |                          |  |   |                                      | Boron   | /                    | /                 | 270.48               | /                 |     |     |
|           |             |               |                     |                    |   |                |                             |                            |                          |  |   |                                      | Cadmium   | /                    | /                 | 0.10                 | /                 |     |     |
|           |             |               |                     |                    |   |                |                             |                            |                          |  |   |                                      | Chromium (total)  | /                    | /                 | 10.14                | /                 |     |     |
|           |             |               |                     |                    |   |                |                             |                            |                          |  |   |                                      | Cobalt  | /                    | /                 | 10.10                | /                 |     |     |
|           |             |               |                     |                    |   |                |                             |                            |                          |  |   |                                      | Copper  | /                    | /                 | 32.83                | /                 |     |     |
|           |             |               |                     |                    |   |                |                             |                            |                          |  |   |                                      | Lead  | /                    | /                 | 55.63                | /                 |     |     |
|           |             |               |                     |                    |   |                |                             |                            |                          |  |   |                                      | Manganese   | /                    | /                 | 327.79               | /                 |     |     |
|           |             |               |                     |                    |   |                |                             |                            |                          |  |   |                                      | Mercury   | /                    | /                 | 0.05                 | /                 |     |     |
|           |             |               |                     |                    |   |                |                             |                            |                          |  |   |                                      | Molybdenum  | /                    | /                 | 2.00                 | /                 |     |     |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code | Site Type    | Operable Unit | Site Dimensions (m) | Dates of Operation | Site History  | Class Status   | Decision/Closeout Report | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration      |                      |                   |                      | 95% UCL           |  |
|-----------|--------------|---------------|---------------------|--------------------|---|----------------|--------------------------|----------------------------|--------------------------|----------------------------|---|--------------------------------------|----------------------------|----------------------|-------------------|----------------------|-------------------|--|
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | COC                        | (pCi/g, mg/kg)       |                   | (pCi/g, mg/kg)       |                   |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                            | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Nickel                     | /                    | /                 | 14.58                | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Vanadium                   | /                    | /                 | 72.03                | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Zinc                       | /                    | /                 | 43.80                | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | TPH - diesel range         | /                    | /                 | 26000.00             | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | TPH - diesel range EXT     | /                    | /                 | 42000.00             | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Nitrate as Nitrogen        | /                    | /                 | 4.30                 | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Nitrate and Nitrite as Nit | /                    | /                 | 6.70                 | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Sulfate                    | /                    | /                 | 8.04                 | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | 4,4'-DDE                   | /                    | /                 | 0.06                 | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | 4,4'-DDT                   | /                    | /                 | 0.01                 | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | alpha-Chlordane            | 0.001                | /                 | /                    | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | gamma-Chlordane            | 0.001                | /                 | /                    | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Acenaphthylene             | 0.100                | /                 | /                    | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Anthracene                 | /                    | /                 | 0.08                 | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Benzo(a)anthracene         | /                    | /                 | 11.20                | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Benzo(a)pyrene             | /                    | /                 | 0.86                 | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Benzo(b)fluoranthene       | /                    | /                 | 1.41                 | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Benzo(ghi)perylene         | 0.120                | /                 | /                    | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Benzo(k)fluoranthene       | /                    | /                 | 0.47                 | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Carbazole                  | 0.048                | /                 | /                    | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Chrysene                   | /                    | /                 | 4.89                 | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Dibenz(a,h)anthracene      | 0.099                | /                 | /                    | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Fluoranthene               | /                    | /                 | 5.40                 | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Fluorene                   | 0.340                | /                 | /                    | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Indeno(1,2,3-cd)pyrene     | 0.510                | /                 | /                    | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Phenanthrene               | /                    | /                 | 0.04                 | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Pyrene                     | /                    | /                 | 3.93                 | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | 2,4-Dinitrophenol          | 0.370                | /                 | /                    | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | 2-Methylnaphthalene        | 0.034                | /                 | /                    | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Aroclor-1254               | 0.012                | /                 | /                    | /                 |  |
| 600-30    | Dumping Area | 100-DR-2      | 213 x 183           | Not Documented     | Based on physical and photograph evidence, this site appears to have been a lay-down yard during construction of 105-DR. Waste consists of broken sheet asbestos, buckets of tar, steel, galvanized pipe, rebar, angle iron, and so forth. There is also evidence of burning throughout the unit. | Interim Closed | WSRF-2011-055            | Oct-08                     | Mar-11                   | Mar-11                     | 7,400 BCM                                       | 1.5                                  | Arsenic                    | /                    | /                 |                      | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      |                            |                      |                   | 3.25                 | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Barium                     | /                    | /                 | 89.23                | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Beryllium                  | /                    | /                 | 0.29                 | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Boron                      | /                    | /                 | 2.43                 | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Cadmium                    | /                    | /                 | 0.11                 | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Chromium (total)           | /                    | /                 | 11.21                | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Cobalt                     | /                    | /                 | 7.89                 | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Copper                     | /                    | /                 | 15.20                | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Hexavalent chromium        | 0.27                 | /                 | —                    | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Lead                       | /                    | /                 | 4.74                 | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Manganese                  | /                    | /                 | 360.11               | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Molybdenum                 | /                    | /                 | 0.39                 | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Nickel                     | /                    | /                 | 11.46                | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Vanadium                   | /                    | /                 | 49.07                | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Zinc                       | /                    | /                 | 43.69                | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | TPH - motor oil            | 6.41                 | /                 | /                    | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Bis(2-ethylhexyl)phthalate | 0.41                 | /                 | /                    | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Excavation Area 1          |                      |                   |                      |                   |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Arsenic                    | /                    | /                 | 3.21                 | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Barium                     | /                    | /                 | 85.73                | /                 |  |
|           |              |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Beryllium                  | /                    | /                 | 0.09                 | /                 |  |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code | Site Type | Operable Unit | Site Dimensions (m) | Dates of Operation | Site History  | Class Status   | Decision/Closeout Report | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration      |                      |                   |                      | 95% UCL           |  |
|-----------|-----------|---------------|---------------------|--------------------|---|----------------|--------------------------|----------------------------|--------------------------|----------------------------|---|--------------------------------------|----------------------------|----------------------|-------------------|----------------------|-------------------|--|
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | (pCi/g, mg/kg)             |                      |                   |                      | (pCi/g, mg/kg)    |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | COC                        | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Boron                      | /                    | /                 | 1.41                 | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Cadmium                    | /                    | /                 | 0.10                 | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Chromium (total)           | /                    | /                 | 12.03                | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Cobalt                     | /                    | /                 | 9.12                 | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Copper                     | /                    | /                 | 17.29                | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Hexavalent chromium        | 0.36                 | /                 | /                    | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Lead                       | /                    | /                 | 4.04                 | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Manganese                  | /                    | /                 | 349.29               | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Mercury                    | /                    | /                 | 0.01                 | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Molybdenum                 | 0.39                 | /                 | /                    | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Nickel                     | /                    | /                 | 12.54                | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Silver                     | 0.17                 | /                 | /                    | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Vanadium                   | /                    | /                 | 57.00                | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Zinc                       | /                    | /                 | 42.68                | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | TPH - diesel range         | 0.82                 | /                 | /                    | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | TPH - motor oil            | 1.70                 | /                 | /                    | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Bis(2-ethylhexyl)phthalate | /                    | /                 | 0.10                 | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Excavation Area 2          |                      |                   |                      |                   |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Antimony                   | 0.43                 | /                 | /                    | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Arsenic                    | /                    | /                 | 2.87                 | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Barium                     | /                    | /                 | 65.38                | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Beryllium                  | 0.07                 | /                 | /                    | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Boron                      | 1.70                 | /                 | /                    | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Cadmium                    | /                    | /                 | 0.07                 | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Chromium (total)           | /                    | /                 | 7.90                 | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Cobalt                     | /                    | /                 | 10.66                | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Copper                     | /                    | /                 | 18.04                | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Hexavalent chromium        | 0.34                 | /                 | /                    | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Lead                       | /                    | /                 | 7.68                 | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Manganese                  | /                    | /                 | 347.38               | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Mercury                    | 0.01                 | /                 | /                    | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Molybdenum                 | 0.26                 | /                 | /                    | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Nickel                     | /                    | /                 | 12.12                | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Vanadium                   | /                    | /                 | 67.39                | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Zinc                       | /                    | /                 | 43.86                | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | TPH - diesel range         | 2.00                 | /                 | /                    | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | TPH - motor oil            | 8.80                 | /                 | /                    | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Bis(2-ethylhexyl)phthalate | 0.09                 | /                 | /                    | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Focus Samples              |                      |                   |                      |                   |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Antimony                   | 0.35                 | /                 | /                    | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Arsenic                    | 3.59                 | /                 | /                    | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Barium                     | 99.10                | /                 | /                    | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Beryllium                  | 0.32                 | /                 | /                    | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Boron                      | 2.46                 | /                 | /                    | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Cadmium                    | 0.13                 | /                 | /                    | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Chromium (total)           | 11.80                | /                 | /                    | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Cobalt                     | 10.30                | /                 | /                    | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Copper                     | 18.30                | /                 | /                    | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Hexavalent chromium        | 0.27                 | /                 | /                    | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Lead                       | 10.80                | /                 | /                    | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Manganese                  | 382.00               | /                 | /                    | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Molybdenum                 | 0.40                 | /                 | /                    | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Nickel                     | 12.70                | /                 | /                    | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Vanadium                   | 62.20                | /                 | /                    | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Zinc                       | 46.60                | /                 | /                    | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | TPH - motor oil            | 52.50                | /                 | /                    | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Aldrin                     | 0.00                 | /                 | /                    | /                 |  |
| 628-3     | Burn Pit  | 100-DR-1      | 130 x 123           | Not documented     | The depression shows signs of severe plant stress and soil discoloration. The depression, as well as the area around it, is littered with debris. | Interim Closed | WSRF 2010-043            | Mar-09                     | Jun-09                   | Nov-10                     | 76657   | 4.6                                  | Antimony                   | 3.15                 | /                 | /                    | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Arsenic                    | /                    | /                 | 2.46                 | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Barium                     | /                    | /                 | 58.2                 | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Beryllium                  | /                    | /                 | 0.188                | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Boron                      | /                    | /                 | 1.23                 | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Cadmium                    | /                    | /                 | 0.134                | /                 |  |
|           |           |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Chromium (total)           | /                    | /                 | 11.1                 | /                 |  |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code   | Site Type         | Operable Unit | Site Dimensions (m)  | Dates of Operation | Site History  | Class Status   | Decision/Closeout Report        | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date     | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration   |                      |                          |                      | 95% UCL            |       |                 |       |
|-------------|-------------------|---------------|----------------------|--------------------|---|----------------|---------------------------------|----------------------------|--------------------------|--------------------------------|---|--------------------------------------|---|----------------------|--------------------------|----------------------|--------------------|-------|-----------------|-------|
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | (pCi/g, mg/kg)  |                      | (pCi/g, mg/kg)           |                      |                    |       |                 |       |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | COC   | Shallow <sup>a</sup> | Deep <sup>b</sup>        | Shallow <sup>a</sup> | Deep <sup>b</sup>  |       |                 |       |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Cobalt  | /                    | /                        | 6.65                 | /                  |       |                 |       |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Copper  | /                    | /                        | 15.5                 | /                  |       |                 |       |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Lead  | /                    | /                        | 9.69                 | /                  |       |                 |       |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Manganese   | /                    | /                        | 282                  | /                  |       |                 |       |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Mercury   | 0.244                | /                        | /                    | /                  |       |                 |       |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Molybdenum  | /                    | /                        | 0.379                | /                  |       |                 |       |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Nickel  | /                    | /                        | 9.7                  | /                  |       |                 |       |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Vanadium  | /                    | /                        | 10.4                 | /                  |       |                 |       |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Zinc  | /                    | /                        | 43                   | /                  |       |                 |       |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | TPH - motor oil   | 20.6                 | /                        | /                    | /                  |       |                 |       |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Acenaphthene  | 0.0178               | /                        | /                    | /                  |       |                 |       |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Benzo(a)anthracene  | 0.004                | /                        | /                    | /                  |       |                 |       |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Benzo(a)pyrene  | 0.0037               | /                        | /                    | /                  |       |                 |       |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Benzo(b)fluoranthene  | 0.00584              | /                        | /                    | /                  |       |                 |       |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Benzo(ghi)perylene  | 0.00428              | /                        | /                    | /                  |       |                 |       |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Benzo(k)fluoranthene  | 0.0021               | /                        | /                    | /                  |       |                 |       |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Chrysene  | 0.008                | /                        | /                    | /                  |       |                 |       |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Fluoranthene  | 0.0827               | /                        | /                    | /                  |       |                 |       |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Indeno(1,2,3-cd)pyrene  | 0.00561              | /                        | /                    | /                  |       |                 |       |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Phenanthrene  | 0.0062               | /                        | /                    | /                  |       |                 |       |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Pyrene  | 0.0036               | /                        | /                    | /                  |       |                 |       |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Aldrin  | 0.00146              | /                        | /                    | /                  |       |                 |       |
| UPR-100-D-1 | Unplanned Release | 100-DR-1      | 0.61 (diameter)      | Not Documented     | The site was an unplanned release that appeared as a small depression surrounded by oil contaminated soil. based on historical documentation and site walkdown, a reclassification status of no action is assigned. | No Action      | WSRF 2005-020                   | N/A                        | N/A                      | N/A                            | N/A   | N/A                                  | WIDS describes the UPR-100-D-1 site as an unplanned release that appears as a small depression surrounded by oil-stained soil (approx 2 ft in dia.). The source could not be determined. A site walkdown discovered the oil-stained soil is no longer visible and the area is highly disturbed. |                      |                          |                      |                    |       |                 |       |
| UPR-100-D-2 | Unplanned Release | 100-DR-1      | Varies               | 1951               | Site was an unplanned release from the 100-D-48:2 pipelines.  | Interim Closed | WSRF 2000-062<br>CVP-2000-00005 | Jul. 1997                  | Aug. 1999                | Aug. 23, 1999 to Oct. 20, 1999 | 57,106  | 6                                    | Cobalt-60   | 0.154                | 7.58                     | 0.0437 <sup>a</sup>  | 1.72 <sup>a</sup>  |       |                 |       |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Cesium-137  | 40.6                 | 61.6                     | 0.499 <sup>a</sup>   | 7,530 <sup>a</sup> |       |                 |       |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Europium-152  | 2.21                 | 24.4                     | 0.4 <sup>a</sup>     | 327 <sup>a</sup>   |       |                 |       |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Europium-154  | 0.894                | 2.93                     | 0.11 <sup>a</sup>    | 1.44 <sup>a</sup>  |       |                 |       |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Plutonium-239/240   | 0.046                | 0.63 J                   | 0.04 <sup>a</sup>    | 0.103 <sup>a</sup> |       |                 |       |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Strontium-90  | 0.42                 | 1.77 J                   | 0.21 <sup>a</sup>    | 0.692 <sup>a</sup> |       |                 |       |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Uranium-233/234   | 0.748                | 0.854 J                  | 0.47 <sup>a</sup>    | 0.49 <sup>a</sup>  |       |                 |       |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Uranium-238   | 0.783                | 8.06 J                   | 0.45 <sup>a</sup>    | 0.52 <sup>a</sup>  |       |                 |       |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Hexavalent Chromium   | 0.42                 | 3.65                     | 0.42 <sup>a</sup>    | 1.3 <sup>a</sup>   |       |                 |       |
| UPR-100-D-3 | Unplanned Release | 100-DR-1      | Varies               | 1951               | Site was an unplanned release from the 100-D-49:2 pipelines.  | Interim Closed | WSRF 2000-063<br>CVP-2000-00005 | Jul. 1997                  | Aug. 1999                | Aug. 23, 1999 to Oct. 20,      | 57,106  | 6                                    | Refer to 100-D-48:2   |                      |                          |                      |                    |       |                 |       |
| UPR-100-D-4 | Unplanned Release | 100-DR-1      | Varies               | 1950               | Site was an unplanned release from pipelines 100-D-48 and 100-D-49.   | Interim Closed | WSRF 2000-034<br>CVP-2000-00003 | Dec. 28, 1998              | Jul. 24, 2000            | Apr. 3 to Aug. 8, 2000         | 107,266   | 6                                    | Cobalt-60   | 0.061 U              | 7.33                     | 0.05                 | 5.29               |       |                 |       |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Cesium-137  | 0.809                | 39.5                     | 0.251                | 28.2               |       |                 |       |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Europium-152  | 0.402                | 64.2                     | 0.3                  | 34.2               |       |                 |       |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Europium-154  | 0.15 U               | 8.01                     | 0.12                 | 4.25               |       |                 |       |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Plutonium-239/240   | 0.24 U               | 1.31                     | 0.13                 | 0.449              |       |                 |       |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Strontium-90  | 0.196 J              | 1.14                     | 0.15                 | 0.607              |       |                 |       |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Uranium-233/234   | 0.713 J              | 0.933 J                  | 0.5                  | 0.57               |       |                 |       |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Uranium-238   | 0.676 J              | 0.873 J                  | 0.42                 | 0.554              |       |                 |       |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Hexavalent Chromium   | 0.64 U               | 5                        | 0.64                 | 5                  |       |                 |       |
| UPR-100-D5  | Unplanned Release | 100-DR-1      | 449.7 m <sup>2</sup> | 1951               | This site is an unplanned release of effluent water from the reactor cooling water (effluent line leak No. 4) and is located southeast of 116-DR-9 (107DR Retention basin).   | No Action      | WSRF/RSVP-2009-035              | Mar. 7, 2008               | Apr. 3, 2008             | July 6-7, 2009                 | 0   | 4.6                                  | Excavation  |                      |                          |                      | North Overburden   |       | West Overburden |       |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Maximum   | 95% UCL              | Focused Samples Max only | Maximum              | 95% UCL            | Max   | 95% UCL         |       |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Cesium-137  | 0.74                 | 0.03                     | /                    | 0.066              | 0.027 | /               | /     |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Strontium-90  | /                    | /                        | /                    | 2.18               | 0.677 | 0.59            | 0.121 |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Uranium-233/234   | 0.627                | 0.472                    | /                    | 0.554              | /     | 0.782           | /     |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Uranium-238   | 0.67                 | 0.518                    | 0.382                | 0.762              | 0.545 | 0.695           | 0.563 |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Antimony  | /                    | /                        | /                    | 0.543              | 0.543 | /               | /     |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Arsenic   | 2.96                 | 2.59                     | 2.11                 | 2.72               | 2.37  | 6.01            | 2.95  |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Barium  | 76.3                 | 66.4                     | 50.2                 | 88.6               | 65.1  | 206             | 93.9  |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Beryllium   | 0.239                | 0.201                    | 0.146                | 0.197              | 0.175 | 0.221           | 0.19  |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Boron   | 3.47                 | 1.52                     | 0.744                | 2.09               | 1.27  | 1.37            | 1.01  |
|             |                   |               |                      |                    |   |                |                                 |                            |                          |                                |   |                                      | Chromium Total  | 13.6                 | 8.42                     | 5.56                 | 7.04               | 6.09  | 8.24            | 6.74  |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code | Site Type         | Operable Unit | Site Dimensions (m) | Dates of Operation | Site History  | Class Status   | Decision/Closeout Report          | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons)            | Maximum Depth of Remedial Action (m) | Maximum Concentration  |                      |                   |                      | 95% UCL           |                      |                   |                      |                   |
|-----------|-------------------|---------------|---------------------|--------------------|---|----------------|-----------------------------------|----------------------------|--------------------------|----------------------------|--|--------------------------------------|--|----------------------|-------------------|----------------------|-------------------|----------------------|-------------------|----------------------|-------------------|
|           |                   |               |                     |                    |   |                |                                   |                            |                          |                            |  |                                      | COC  | (pCi/g, mg/kg)       |                   | (pCi/g, mg/kg)       |                   | (pCi/g, mg/kg)       |                   | (pCi/g, mg/kg)       |                   |
|           |                   |               |                     |                    |   |                |                                   |                            |                          |                            |  |                                      |  | Shallow <sup>a</sup> | Deep <sup>b</sup> |
|           |                   |               |                     |                    |   |                |                                   |                            |                          |                            |  |                                      | Hexavalent Chromium  | 0.17                 | 0.17              | /                    | 0.19              | 0.19                 | 0.17              | 0.17                 |                   |
|           |                   |               |                     |                    |   |                |                                   |                            |                          |                            |  |                                      | Cobalt   | 9.28                 | 8.42              | 7.24                 | 9.08              | 8.05                 | 9.32              | 8.57                 |                   |
|           |                   |               |                     |                    |   |                |                                   |                            |                          |                            |  |                                      | Copper   | 23                   | 15.6              | 12.8                 | 13.8              | 13.2                 | 15.8              | 14.5                 |                   |
|           |                   |               |                     |                    |   |                |                                   |                            |                          |                            |  |                                      | Lead   | 3.42                 | 2.85              | 2.2                  | 2.97              | 2.54                 | 3.55              | 2.95                 |                   |
|           |                   |               |                     |                    |   |                |                                   |                            |                          |                            |  |                                      | Manganese  | 360                  | 311               | 254                  | 434               | 320                  | 1120              | 479                  |                   |
|           |                   |               |                     |                    |   |                |                                   |                            |                          |                            |  |                                      | Molybdenum   | 0.368 B              | 0.333             | 0.33                 | 0.396 B           | 0.364                | 0.531 B           | 0.417                |                   |
|           |                   |               |                     |                    |   |                |                                   |                            |                          |                            |  |                                      | Nickel   | 11.6                 | 10.3              | 12                   | 11.7              | 9.41                 | 10.2              | 8.61                 |                   |
|           |                   |               |                     |                    |   |                |                                   |                            |                          |                            |  |                                      | Selenium   | /                    | /                 | /                    | 0.236             | 0.236                | /                 | /                    |                   |
|           |                   |               |                     |                    |   |                |                                   |                            |                          |                            |  |                                      | Silver   | 0.17                 | 0.17              | /                    | /                 | /                    | 0.218             | 0.175                |                   |
|           |                   |               |                     |                    |   |                |                                   |                            |                          |                            |  |                                      | Vanadium   | 72.4                 | 66.4              | 60.1                 | 70.8              | 66.2                 | 73.8              | 68.3                 |                   |
|           |                   |               |                     |                    |   |                |                                   |                            |                          |                            |  |                                      | Zinc   | 51.6                 | 45.6              | 40.6                 | 43.5              | 42.5                 | 49.3              | 46.3                 |                   |
|           |                   |               |                     |                    |   |                |                                   |                            |                          |                            |  |                                      | Aroclor-1260   | /                    | /                 | /                    | /                 | /                    | 0.00434           | 0.00434              |                   |
| 100-H-1   | Storage           | 100-HR-1      | 12.2 x 2.1 x 1.4    | 1949-1965          | Site was used during the operation of the 105-H Reactor for temporary storage of irradiated reactor control rods and tools used in rod removal and installation.  | Interim Closed | WSRF 2001-007<br>CVP-2000-00029   | Oct. 19, 1999              | Jul. 21, 2000            | Jul. 17 to Dec. 12, 2000   | 32,725   | 5.6                                  | Refer to 100-H-22  |                      |                   |                      |                   |                      |                   |                      |                   |
| 100-H-10  | French Drain      | 100-HR-1      | 1.22 (dia.)         | 1949-1965          | Site was a vertically buried 1.22 m diameter vitrified clay pipe with steel lid. It was suspected to be a French drain. The french drain was likely a condensate drain for the steam heating system and would not have been subject to contamination from within the reactor building.  | Interim Closed | WSRF 2005-053<br>CVP-2006-00003   | Not Documented             | 2004                     | N/A                        | 73,966<br>(includes all sites addressed by CVP-2006-00003) | 6                                    | The 100-H-10 Site is analogous to reactor French drains at 118-C-3:3 and 100-F-12. Evaluation of analogous reactor French drains indicates that possible residual soil contamination at 100-H-10 meets remediation action objectives and goals.  |                      |                   |                      |                   |                      |                   |                      |                   |
| 100-H-11  | French Drain      | 100-HR-1      | 0.76 (dia.)         | 1949-1965          | Site was a drain that appeared to be installed to provide drainage for an expansion box. The unit was a vertical 0.76 m diameter steel manhole set in concrete that provided access to a French drain at the bottom of the box. It appears the drain was installed to provide drainage for any leaks in an expansion box.   | Interim Closed | WSRF 2006-012<br>CVP-2006-00003   | Not Documented             | 2004                     | Mar. 24-25 & Apr. 6, 2004  | 73,966<br>(includes all sites addressed by CVP-2006-00003) | 6                                    | Evaluation of the fuel storage basin soils (118-H-6:3) and deep zone side slopes (118-H-6:6) also refers to soils underlying waste site 100-H-11. Verification samples for of the soils underlying the FSB floor also pertains to the soils beneath the 100-H-11 site. Refer to 118-H-6:3 and 118-H-6:6 for data.                                  |                      |                   |                      |                   |                      |                   |                      |                   |
| 100-H-12  | French Drain      | 100-HR-1      | 0.76 (dia.)         | 1949-1965          | This site is a vertical 0.76 m diameter steel manhole set in concrete that provided access to a French drain at the bottom of a concrete expansion box. The French drain appears to have been installed to provide drainage for any leakage that might occur in the expansion box.  | Interim Closed | WSRF 2006-013<br>CVP-2006-00003   | Not Documented             | 2004                     | Mar. 24-25 & Apr. 6, 2004  | 73,966<br>(includes all sites addressed by CVP-2006-00003) | 6                                    | Evaluation of the fuel storage basin soils (118-H-6:3) and deep zone side slopes (118-H-6:6) also refers to soils underlying waste site 100-H-11. Refer to 118-H-6:3 and 118-H-6:6 for coca data. Verification sampling from the soils in the deep zone side slopes and underlying the FSB floor pertains to the soils beneath the 100-H-12 drain. |                      |                   |                      |                   |                      |                   |                      |                   |
| 100-H-13  | French Drain      | 100-HR-1      | 1.22 (dia.)         | 1949-1965          | Site was a French drain constructed of vitrified clay pipe and covered by two metal lids. The second metal lid was located 15.2 cm below the first. A 6.3 cm stainless steel pipe emerged from the 105-H Reactor Building wall, ran downward to the surface, and disappeared at a point in approximate alignment with the site. An asphalt surface repair mark ran through the asphalt from the point where the pipeline entered the ground to the french drain. This suggests the possibility of drainage from the Reactor Building. | Interim Closed | WSRF 2006-011<br>CVP-2006-00003   | Not Documented             | 2004                     | N/A                        | 73,966<br>(includes all sites addressed by CVP-2006-00003) | 6                                    | The 100-H-13 Site is analogous to reactor French drains at 118-C-3:3 and 100-F-12. Evaluation of analogous reactor French drains indicates that possible residual soil contamination at 100-H-13 meets remediation action objectives and goals.  |                      |                   |                      |                   |                      |                   |                      |                   |
| 100-H-14  | Unplanned Release | 100-HR-1      | 0.3 x 0.6           | Not Documented     | Surface contamination area located next to the south wall of the 105-H Reactor.   | Interim Closed | WSRF 2006-014 /<br>CVP-2006-00003 | Not Documented             | 2004                     | Mar. 24-25 & Apr. 6, 2004  | 73,966<br>(includes all sites addressed by CVP-2006-00003) | 6                                    | Evaluation of the fuel storage basin soils (118-H-6:3) and deep zone side slopes (118-H-6:6) also refers to soils underlying waste site 100-H-11. Refer to 118-H-6:3 and 118-H-6:6 for coca data. Verification sampling from the soils in the deep zone side slopes pertain to the soils beneath the 100-H-14 surface contamination.               |                      |                   |                      |                   |                      |                   |                      |                   |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code | Site Type         | Operable Unit | Site Dimensions (m)  | Dates of Operation | Site History   | Class Status   | Decision/Closeout Report  | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | COC              | Maximum Concentration |                   |                      |                   |     |
|-----------|-------------------|---------------|--|--------------------|--|----------------|---|----------------------------|--------------------------|----------------------------|---|--------------------------------------|------------------|-----------------------|-------------------|----------------------|-------------------|-----|
|           |                   |               |  |                    |  |                |   |                            |                          |                            |   |                                      |                  | (pCi/g, mg/kg)        |                   | 95% UCL              |                   |     |
|           |                   |               |  |                    |  |                |   |                            |                          |                            |   |                                      |                  | Shallow <sup>a</sup>  | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |     |
| 100-H-15  | Septic Tank       | 100-HR-2      | 45.7 x 9.1   | Not Documented     | The site appears in a photograph as a line of disturbed soil near the southeast corner of the 151-H Electrical Substation. The authors of the technical baseline report concluded this site had the appearance of a septic tank. There was no evidence of a septic system during a walkdown. On March 29, 1996, the manhole was opened and determined to be the tie-in from the 151-H and 105-H Buildings to the 1607-H1 Septic System. There was no evidence of a line running to the west from the manhole. It has been concluded that 100-H-15 and 118-H-2 are the same site. | Not Accepted   | Not Documented  | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A              | N/A                   | N/A               | N/A                  | N/A               | N/A |
| 100-H-16  | Sump              | 100-HR-2      | 9.45 x 5.49 x 3.66   | 1948-?             | The salt-dissolving pits and brine pump pit were part of a single, below grade concrete structure that provided brine for the 184-H Powerhouse. No evidence of the structure can be seen today. The site was probably demolished in place. No documentation has been located related to cleanup. It is not known if salt cake was left in the structure.   | Rejected       | WSRF 97-003   | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A              | N/A                   | N/A               | N/A                  | N/A               | N/A |
| 100-H-17  | Unplanned Release | 100-HR-1      | 159.7 x 58.5 x 1.8   | 1953               | Site was a triangular area that received overflow from the 1608-H Liquid Waste Disposal Trench.  | Interim Closed | WSRF 2000-119 CVP-2000-00031  | Feb. 2, 2000               | Feb. 10, 2000            | Aug. 10-24, 2000           | 19,920  | 2.6                                  | Refer to 116-H-2 |                       |                   |                      |                   |     |
| 100-H-18  | Unplanned Release | 100-HR-1      | Not Documented   | 1955               | The waste consisted of airborne radioactive particulates released through the 105-H stack. The 105-H stack emitted approximately 0.6 curies of filterable gross beta contamination on May 3, 1955, when two ruptured slugs were removed from the reactor.  | Not Accepted   | TPA-MP-14 WIDS Discovery Site Evaluation checklist approved by the Regulators | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A              | N/A                   | N/A               | N/A                  | N/A               | N/A |
| 100-H-19  | Unplanned Release | 100-HR-1      | Approx. 7 mi <sup>2</sup> S of 100-H   | Nov. 1, 1955       | The waste consisted of airborne radioactive particulates released through the 105-H Stack. Approximately 0.8 Ci of filterable gross beta contamination, mostly Ba and rare earth plus yttrium, was emitted from the 105-H Stack.   | Not Accepted   | TPA-MP-14 WIDS Discovery Site Evaluation checklist approved by the Regulators | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A              | N/A                   | N/A               | N/A                  | N/A               | N/A |
| 100-H-2   | Burial Ground     | 100-HR-2      | 12.2 (length)  | 1953               | Inactive, low-level solid waste burial ground said to consist of two north-south backfilled trenches.  | Interim Closed | WSRF 2000-119 CVP-2000-00031  | Feb. 2, 2000               | Feb. 10, 2000            | Aug. 10-24, 2000           | 19,920  | 2.6                                  | Refer to 116-H-2 |                       |                   |                      |                   |     |
| 100-H-20  | Unplanned Release | 100-HR-1      | Area extending from around the 100-H Water Towers, swallow flight path toward White Bluffs | May 15, 1956       | Discovered swallows were making nests out of contaminated mud taken from the 107-H Liquid Waste Disposal Trench. The mud used by the swallows would have contained radioactive contamination from fuel element rupture.  | Not Accepted   | TPA-MP-14 WIDS Discovery Site Evaluation checklist approved by the Regulators | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A              | N/A                   | N/A               | N/A                  | N/A               | N/A |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code  | Site Type                 | Operable Unit | Site Dimensions (m)  | Dates of Operation | Site History  | Class Status   | Decision/Closeout Report  | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date                  | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration     |                      |                   |                      | 95% UCL           |     |
|------------|---------------------------|---------------|--|--------------------|---|----------------|---|----------------------------|--------------------------|---|---|--------------------------------------|---------------------------|----------------------|-------------------|----------------------|-------------------|-----|
|            |                           |               |  |                    |   |                |   |                            |                          |   |   |                                      | COC                       | (pCi/g, mg/kg)       |                   | (pCi/g, mg/kg)       |                   |     |
|            |                           |               |  |                    |   |                |   |                            |                          |   |   |                                      |                           | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |     |
| 100-H-21   | Radioactive Process Sewer | 100-HR-1      | 893.7 (length) x 4.2 (depth) x 1.5 (dia.); 306.6 (length) x 0.5 (dia.); 1,244.498 (length) x 2.438 (depth) | 1949-1965          | This site includes two former 1.5 m- (5-ft-) diameter steel pipelines that carried 105-H Reactor cooling water effluent from the Reactor to the 116H7 Retention basin and from the basin to the 116-H-5 Outfall. The site also includes a 0.5 m (1.6-ft-) diameter steel pipeline that was used to divert reactor-cooling water from the retention basin to the 116-H-1 Trench and a 0.5 m (1.6-ft-) diameter steel pipeline along the west side of the retention basin and pipelines from the reactor to the 1608-H Pump House and the 116-H-2 Trench. | Interim Closed | WSRF 2001-006 CVP-2000-00029  | Oct. 19, 1999              | Jul. 21, 2000            | Jul. 17 to Dec. 12, 2000                    | 32,725  | 5.6                                  | Refer to 100-H-22         |                      |                   |                      |                   |     |
| 100-H-22   | Unplanned Release         | 100-HR-1      | Not Documented   | 1949-1965          | Soil contaminated by leakage from 100-H-21 Reactor effluent pipelines.  | Interim Closed | WSRF 2001-006 CVP-2000-00029  | Oct. 19, 1999              | Jul. 21, 2000            | Jul. 17 to Dec. 12, 2000                    | 32,725  | 5.6                                  | Cobalt-60                 | 0.054 U              | 0.2810            | 0.0400               | 0.1250            |     |
|            |                           |               |  |                    |   |                |   |                            |                          |   |   |                                      | Cesium-137                | 0.8260               | 10.8000           | 0.1840               | 3.7000            |     |
|            |                           |               |  |                    |   |                |   |                            |                          |   |   |                                      | Europium-152              | 0.5580               | 2.4100            | 0.2100               | 1.2400            |     |
|            |                           |               |  |                    |   |                |   |                            |                          |   |   |                                      | Europium-154              | 0.19 U               | 0.4080            | 0.1500               | 0.2290            |     |
|            |                           |               |  |                    |   |                |   |                            |                          |   |   |                                      | Europium-155              | 0.15 U               | 0.2 U             | 0.1200               | 0.1550            |     |
|            |                           |               |  |                    |   |                |   |                            |                          |   |   |                                      | Nickel-63                 | 3.20 U               | 25 J              | 3.0700               | 9.1600            |     |
|            |                           |               |  |                    |   |                |   |                            |                          |   |   |                                      | Plutonium-238             | 0.072 J              | 0.1370            | 0.0700               | 0.0927            |     |
|            |                           |               |  |                    |   |                |   |                            |                          |   |   |                                      | Plutonium-239/240         | 0.075 J              | 0.0999 U          | 0.0500               | 0.0879            |     |
|            |                           |               |  |                    |   |                |   |                            |                          |   |   |                                      | Strontium-90              | 0.142 U              | 0.512 J           | 0.1830               | 0.2800            |     |
|            |                           |               |  |                    |   |                |   |                            |                          |   |   |                                      | Uranium-238               | 0.704 J              | 0.712 J           | 0.5000               | 0.5350            |     |
|            |                           |               |  |                    |   |                |   |                            |                          |   |   |                                      | Arsenic                   | 26.0000              | 11.0000           | 14.0000              | 6.0000            |     |
|            |                           |               |  |                    |   |                |   |                            |                          |   |   |                                      | Hexavalent Chromium       | 0.7000               | 2.2000            | 0.7000               | 1.4000            |     |
|            |                           |               |  |                    |   |                |   |                            |                          |   |   |                                      | Lead                      | 95.0000              | 32.0000           | 42.0000              | 16.0000           |     |
| 100-H-24   | Electrical Substation     | 100-HR-1      | 137.2 x 87.2 x 0.3   | 1948-1978          | This site is the area of the demolished 151-H Electrical Substation including the former 151-H Building and adjacent switchyard. Supplied all electrical power to 100-H.  | Interim Closed | WSRF 2001-027 CVP-2000-00030  | Nov. 1999                  | Dec. 2000                | Aug. & Dec. 2000                            | 19,294  | 4.6                                  | Aroclor-1016              | 0.17 U               | /                 | /                    | /                 |     |
|            |                           |               |  |                    |   |                |   |                            |                          |   |   |                                      | Aroclor-1221              | 0.34 U               | /                 | /                    | /                 |     |
|            |                           |               |  |                    |   |                |   |                            |                          |   |   |                                      | Aroclor-1232              | 0.17 U               | /                 | /                    | /                 |     |
|            |                           |               |  |                    |   |                |   |                            |                          |   |   |                                      | Aroclor-1242              | 0.17 U               | /                 | /                    | /                 |     |
|            |                           |               |  |                    |   |                |   |                            |                          |   |   |                                      | Aroclor-1248              | 0.17 U               | /                 | /                    | /                 |     |
|            |                           |               |  |                    |   |                |   |                            |                          |   |   |                                      | Aroclor-1254              | 0.17 U               | /                 | /                    | /                 |     |
|            |                           |               |  |                    |   |                |   |                            |                          |   |   |                                      | Aroclor-1260 <sup>g</sup> | 0.3500               | /                 | 0.3500               | /                 |     |
|            |                           |               |  |                    |   |                |   |                            |                          |   |   |                                      | Arsenic                   | 5.7000               | /                 | /                    | /                 |     |
| 100-H-26   | Unplanned Release         | 100-HR-1      | Not Documented   | Not Documented     | The site consists of grounds within the 100-H Exclusion Area that are not part of other waste sites.  | Not Accepted   | TPA-MP-14 WIDS Discovery Site Evaluation checklist approved by the            | N/A                        | N/A                      | N/A   | N/A   | N/A                                  | N/A                       | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 100-H-27   | Ditch                     | 100-HR-2      | 91.4 x 0.9 x 0.46 <sup>a</sup> ; 102.3 (length) <sup>b</sup>   | Not Documented     | The site is a ditch that receives stormwater runoff from a nearby asphalt parking area. The ditch runs northward from a 15 cm (6in.) vitrified clay pipe that discharged at a headwall.   | Not Accepted   | TPA-MP-14 WIDS Discovery Site Evaluation checklist approved by the Regulators | N/A                        | N/A                      | N/A   | N/A   | N/A                                  | N/A                       | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 100-H-28:1 | Process Sewer             | 100-HR-1      | length of pipeline is 265 m  | 1949-1965          | Pipeline was designed to sluice coal ash from the boiler operation to disposal at the 126-H-1 ash pit.  | No Action      | WSRF/RSVP-2006-020  | Aug. 28, 2002              | Sept. 24, 2008           | confirmatory sampling done on Aug. 28, 2008 | None  | 1.5                                  | Arsenic                   | 3.3(<BG)             |                   | /                    |                   |     |
|            |                           |               |  |                    |   |                |   |                            |                          |   |   |                                      | Barium                    | 540.0000             |                   |                      |                   |     |
|            |                           |               |  |                    |   |                |   |                            |                          |   |   |                                      | Beryllium                 | 0.53(<BG)            |                   |                      |                   |     |
|            |                           |               |  |                    |   |                |   |                            |                          |   |   |                                      | Boron                     | 66.4000              |                   |                      |                   |     |
|            |                           |               |  |                    |   |                |   |                            |                          |   |   |                                      | Chromium Total            | 15.0(<BG)            |                   |                      |                   |     |
|            |                           |               |  |                    |   |                |   |                            |                          |   |   |                                      | Cobalt                    | 8.0(<BG)             |                   |                      |                   |     |
|            |                           |               |  |                    |   |                |   |                            |                          |   |   |                                      | Copper                    | 22.7000              |                   |                      |                   |     |
|            |                           |               |  |                    |   |                |   |                            |                          |   |   |                                      | Lead                      | 5.7(<BG)             |                   |                      |                   |     |
|            |                           |               |  |                    |   |                |   |                            |                          |   |   |                                      | Manganese                 | 340(<BG)             |                   |                      |                   |     |
|            |                           |               |  |                    |   |                |   |                            |                          |   |   |                                      | Mercury                   | .03(<BG)             |                   |                      |                   |     |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code  | Site Type     | Operable Unit | Site Dimensions (m)    | Dates of Operation | Site History   | Class Status | Decision/Closeout Report | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date                           | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration    |                      |                   |                      | 95% UCL           |     |
|------------|---------------|---------------|------------------------|--------------------|--|--------------|--------------------------|----------------------------|--------------------------|--|---|--------------------------------------|--------------------------|----------------------|-------------------|----------------------|-------------------|-----|
|            |               |               |                        |                    |  |              |                          |                            |                          |  |   |                                      | COC                      | (pCi/g, mg/kg)       |                   | (pCi/g, mg/kg)       |                   |     |
|            |               |               |                        |                    |  |              |                          |                            |                          |  |   |                                      |                          | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |     |
|            |               |               |                        |                    |  |              |                          |                            |                          |  |   |                                      | Molybdenum               | 1.1000               |                   |                      |                   |     |
|            |               |               |                        |                    |  |              |                          |                            |                          |  |   |                                      | Nickel                   | 17.2(<BG)            |                   |                      |                   |     |
|            |               |               |                        |                    |  |              |                          |                            |                          |  |   |                                      | Vanadium                 | 52.7(<BG)            |                   |                      |                   |     |
|            |               |               |                        |                    |  |              |                          |                            |                          |  |   |                                      | Zinc                     | 45.2(<BG)            |                   |                      |                   |     |
|            |               |               |                        |                    |  |              |                          |                            |                          |  |   |                                      | Acenaphthene             | 0.0220               |                   |                      |                   |     |
|            |               |               |                        |                    |  |              |                          |                            |                          |  |   |                                      | benzo(a)pyrene           | 0.0042               |                   |                      |                   |     |
|            |               |               |                        |                    |  |              |                          |                            |                          |  |   |                                      | benzo(b)fluoranthene     | 0.0580               |                   |                      |                   |     |
|            |               |               |                        |                    |  |              |                          |                            |                          |  |   |                                      | benzo(ghi)perylene       | 0.0120               |                   |                      |                   |     |
|            |               |               |                        |                    |  |              |                          |                            |                          |  |   |                                      | benzo(k)fluoranthene     | 0.0024               |                   |                      |                   |     |
|            |               |               |                        |                    |  |              |                          |                            |                          |  |   |                                      | Chrysene                 | 0.0043               |                   |                      |                   |     |
|            |               |               |                        |                    |  |              |                          |                            |                          |  |   |                                      | Dibenz[a,h]anthracene    | 0.0022               |                   |                      |                   |     |
|            |               |               |                        |                    |  |              |                          |                            |                          |  |   |                                      | Fluoranthene             | 0.0072               |                   |                      |                   |     |
|            |               |               |                        |                    |  |              |                          |                            |                          |  |   |                                      | Fluorene                 | 0.0069               |                   |                      |                   |     |
|            |               |               |                        |                    |  |              |                          |                            |                          |  |   |                                      | Indeno(1, 2, 3-cd)pyrene | 0.0340               |                   |                      |                   |     |
|            |               |               |                        |                    |  |              |                          |                            |                          |  |   |                                      | Naphthalene              | 0.0230               |                   |                      |                   |     |
|            |               |               |                        |                    |  |              |                          |                            |                          |  |   |                                      | Phenanthrene             | 0.0150               |                   |                      |                   |     |
|            |               |               |                        |                    |  |              |                          |                            |                          |  |   |                                      | Pyrene                   | 0.0083               |                   |                      |                   |     |
| 100-H-28:2 | Process Sewer | 100-HR-1      | Not Documented         | 1949-1965          | This subsite encompasses those vitrified clay, reinforced concrete, and cast iron process sewer lines formerly servicing the 105-H Reactor Building, 190-H Pumphouse, 183-H clearwells and pumphouse (126-B-2), and miscellaneous 1700-series buildings east of the 190-H Pumphouse. These process sewers formerly drained to the 1906-H lift station, which pumped wastes to the 1904-H Outfall.  | Accepted     | Not Documented           | N/A                        | N/A                      | N/A  | N/A   | N/A                                  | N/A                      | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 100-H-28:3 | Process Sewer | 100-HR-1      | Not Documented         | 1949-1966          | This subsite encompasses those vitrified clay, reinforced concrete, and cast iron process sewer lines formerly servicing the 184-H Power Plant, and 183-H Filter Plant. These process sewers formerly drained to the 100-H-28:2 process sewers east of the 183-H   | Accepted     | Not Documented           | N/A                        | N/A                      | N/A  | N/A   | N/A                                  | N/A                      | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 100-H-28:4 | Process Sewer | 100-HR-1      | Not Documented         | 1949-1967          | This subsite encompasses those vitrified clay pipelines that formerly carried sanitary wastes to the 1607-H1 septic system. These sewers formerly serviced the 105-H Reactor Building, 190-H Pumphouse, and 151-H Electrical Substation.   | Accepted     | Not Documented           | N/A                        | N/A                      | N/A  | N/A   | N/A                                  | N/A                      | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 100-H-28:5 | Process Sewer | 100-HR-1      | Not Documented         | 1949-1968          | This subsite encompasses those vitrified clay pipelines that formerly carried sanitary wastes to the 1607-H2 septic system. These sewers formerly serviced the 182-H Reservoir pumphouse, 183-H Filter Plant, 184-H Power House, 190-H Pumphouse, and 1700-series buildings east of the 190-H Pumphouse. The administrative boundary of this subsite extends to the boundary of previous remedial activities at the 1607-H2 septic system. | Accepted     | Not Documented           | N/A                        | N/A                      | N/A  | N/A   | N/A                                  | N/A                      | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 100-H-28:6 | Process Sewer | 100-HR-1      | 190 m of 20 cm in dia. | 1949-1968          | consists of approx. 190m of 20cm vitrified clay pipeline which is about 4.6m below ground surface. Pipeline was installed during construction of the   | No Action    | WSRF/RSVP-2006-026       | Sept. 2, 2008              | Sept. 24, 2008           | confirmatory sampling done on Sept. 2, 3, & 24, 2008 | N/A   | 3.7                                  | Cesium-137               | 0.344(<BG)           | /                 | /                    | /                 | /   |
|            |               |               |                        |                    |  |              |                          |                            |                          |  |   |                                      | Antimony                 | 1.1(<BG)             | /                 | /                    | /                 | /   |
|            |               |               |                        |                    |  |              |                          |                            |                          |  |   |                                      | Arsenic                  | 7.4000               | /                 | /                    | /                 | /   |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code  | Site Type     | Operable Unit | Site Dimensions (m) | Dates of Operation | Site History   | Class Status   | Decision/Closeout Report | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration |  |                   |                      | 95% UCL           |     |
|------------|---------------|---------------|---------------------|--------------------|--|----------------|--------------------------|----------------------------|--------------------------|----------------------------|---|--------------------------------------|-----------------------|--|-------------------|----------------------|-------------------|-----|
|            |               |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | COC                   | (pCi/g, mg/kg)   |                   | (pCi/g, mg/kg)       |                   |     |
|            |               |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      |                       | Shallow <sup>a</sup>   | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |     |
|            |               |               |                     |                    | 182-H reservoir.   |                |                          |                            |                          |                            |   |                                      | Barium                | 124(<BG)   | /                 | /                    | /                 |     |
|            |               |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Beryllium             | 0.25(<BG)  | /                 | /                    | /                 |     |
|            |               |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Boron                 | 6.9000   | /                 | /                    | /                 |     |
|            |               |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Cadmium               | 1.3000   | /                 | /                    | /                 |     |
|            |               |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Chromium Total        | 27.4000  | /                 | /                    | /                 |     |
|            |               |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Cobalt                | 7.1(<BG)   | /                 | /                    | /                 |     |
|            |               |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Copper                | 34.0000  | /                 | /                    | /                 |     |
|            |               |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Lead                  | 97.7000  | /                 | /                    | /                 |     |
|            |               |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Manganese             | 305(<BG)   | /                 | /                    | /                 |     |
|            |               |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Mercury               | 0.05(<BG)  | /                 | /                    | /                 |     |
|            |               |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Molybdenum            | 0.9400   | /                 | /                    | /                 |     |
|            |               |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Nickel                | 17(<BG)  | /                 | /                    | /                 |     |
|            |               |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Vanadium              | 45.2(<BG)  | /                 | /                    | /                 |     |
|            |               |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Zinc                  | 312.0000   | /                 | /                    | /                 |     |
| 100-H-28:7 | Process Sewer | 100-HR-1      | Varies              | 1949-1968          | This subsite encompasses the filtered/treated water supply lines originating at the 183-H Filter Plant, including two 0.91 meters steel lines terminating at the 190-H building, a 0.76 meters line terminating at the 182-H Reservoir pumphouse, two 0.25 meters steel lines terminating at the 184-H Power House, and the former supply lines to the emergency cooling water high tanks at the 105-H Reactor | Accepted       | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A                   | N/A  | N/A               | N/A                  | N/A               | N/A |
| 100-H-28:8 | Process Sewer | 100-HR-1      | 0.61 dia.           | 1949-1965          | consisted of four 0.61 m dia. seamless welded steel pipelines . Were used to provide final treated cooling water from the 190-H Pumphouse to the 105-H Reactor.  | No Action      | WSRF/RSVP-2006-024       | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A                   | Piping was removed prior to demolition of 190-H pumphouse in 1977. Remaining portions of the site were excavated and removed during Interim Safe Storage activities for the 105-H Reactor Building. Remaining portions of the building were sealed as part of ISS and will be addressed a part of closure of the reactor facilities. |                   |                      |                   |     |
| 100-H-3    | Storage Tank  | 100-HR-1      | 5.4 x 2.4 (dia.)    | 1949-1965          | Site may contain one or more USTs used to supply fuel to the 1716-H Garage. This building served as an automotive service station from 1949 to 1965. The automotive service area included gas pumps with USTs and, possibly, an oil pit.   | Interim Closed | WSRF/RSVP-2010-103       | Dec. 21, 2010              | Dec.30. 2010             | 29-Mar-11                  | 894 BCM   | 3.5                                  | Arsenic               | 25.0000  | /                 | 12.9000              | /                 |     |
|            |               |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Barium                | 99.0000  | /                 | 88.6253              | /                 |     |
|            |               |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Beryllium             | 0.3600   | /                 | 0.3330               | /                 |     |
|            |               |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Boron                 | 7.1400   | /                 | 3.2440               | /                 |     |
|            |               |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Cadmium               | 0.5250   | /                 | 0.2310               | /                 |     |
|            |               |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Chromium (total)      | 20.9000  | /                 | 17.2780              | /                 |     |
|            |               |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Cobalt                | 6.9200   | /                 | 6.4650               | /                 |     |
|            |               |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Copper                | 16.3000  | /                 | 15.0548              | /                 |     |
|            |               |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Lead                  | 76.8000  | /                 | 67.7918              | /                 |     |
|            |               |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Manganese             | 325.0000   | /                 | 305.5915             | /                 |     |
|            |               |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Molybdenum            | 0.6390   | /                 | 0.4450               | /                 |     |
|            |               |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Nickel                | 17.7000  | /                 | 14.8768              | /                 |     |
|            |               |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Vanadium              | 52.3000  | /                 | 49.0777              | /                 |     |
|            |               |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Zinc                  | 54.7000  | /                 | 48.7874              | /                 |     |
|            |               |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | TPH - motor oil       | 180.0000   | /                 | 55.7000              | /                 |     |
|            |               |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Mercury               | 0.4130   | /                 | /                    | /                 |     |
|            |               |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | TPH - diesel range    | 164.0000   | /                 | /                    | /                 |     |
|            |               |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Aroclor-1254          | 0.0080   | /                 | /                    | /                 |     |
|            |               |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Aroclor-1260          | 0.0144   | /                 | /                    | /                 |     |
|            |               |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Anthracene            | 0.0170   | /                 | /                    | /                 |     |
|            |               |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Benzo(a)anthracene    | 0.0696   | /                 | 0.0230               | /                 |     |
|            |               |               |                     |                    |  |                |                          |                            |                          |                            |   |                                      | Benzo(a)pyrene        | 0.0708   | /                 | 0.0110               | /                 |     |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code | Site Type                 | Operable Unit | Site Dimensions (m)       | Dates of Operation | Site History   | Class Status   | Decision/Closeout Report     | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons)         | Maximum Depth of Remedial Action (m) | Maximum Concentration   |                      |                   |                      | 95% UCL           |     |
|-----------|---------------------------|---------------|---------------------------|--------------------|--|----------------|------------------------------|----------------------------|--------------------------|----------------------------|---|--------------------------------------|---|----------------------|-------------------|----------------------|-------------------|-----|
|           |                           |               |                           |                    |  |                |                              |                            |                          |                            |   |                                      | COC   | (pCi/g, mg/kg)       |                   | (pCi/g, mg/kg)       |                   |     |
|           |                           |               |                           |                    |  |                |                              |                            |                          |                            |   |                                      |   | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |     |
|           |                           |               |                           |                    |  |                |                              |                            |                          |                            |   |                                      | Benzo(b)fluoranthene  | 0.0608               | /                 | 0.0880               | /                 |     |
|           |                           |               |                           |                    |  |                |                              |                            |                          |                            |   |                                      | Benzo(ghi)perylene  | 0.0270               | /                 | /                    | /                 |     |
|           |                           |               |                           |                    |  |                |                              |                            |                          |                            |   |                                      | Benzo(k)fluoranthene  | 0.0340               | /                 | /                    | /                 |     |
|           |                           |               |                           |                    |  |                |                              |                            |                          |                            |   |                                      | beta-BHC  | 0.0025               | /                 | /                    | /                 |     |
|           |                           |               |                           |                    |  |                |                              |                            |                          |                            |   |                                      | Chrysene  | 0.0851               | /                 | 0.0570               | /                 |     |
|           |                           |               |                           |                    |  |                |                              |                            |                          |                            |   |                                      | Dieldrin  | 0.0049               | /                 | /                    | /                 |     |
|           |                           |               |                           |                    |  |                |                              |                            |                          |                            |   |                                      | Fluoranthene  | 0.1900               | /                 | /                    | /                 |     |
|           |                           |               |                           |                    |  |                |                              |                            |                          |                            |   |                                      | Fluorene  | 0.0120               | /                 | /                    | /                 |     |
|           |                           |               |                           |                    |  |                |                              |                            |                          |                            |   |                                      | Indeno(1,2,3-cd)pyrene  | 0.0410               | /                 | /                    | /                 |     |
|           |                           |               |                           |                    |  |                |                              |                            |                          |                            |   |                                      | Phenanthrene  | 0.1200               | /                 | /                    | /                 |     |
|           |                           |               |                           |                    |  |                |                              |                            |                          |                            |   |                                      | Pyrene  | 0.0714               | /                 | 0.0620               | /                 |     |
| 100-H-30  | Trench                    | 100-HR-1      | Not Documented            | Not Documented     | Site was a sanitary sewer trench and feed pipeline believed to support the demolished 110 H Building.  | Interim Closed | WSRF 2000-119 CVP-2000-00031 | Feb. 2, 2000               | Feb. 10, 2000            | Aug. 10-24, 2000           | 19,920  | 2.6                                  | Refer to 116-H-2  |                      |                   |                      |                   |     |
| 100-H-31  | Unplanned Release         | 100-HR-1      | 5.89 m <sup>2</sup>       | Not Documented     | Site was soil contaminated with PCB at the north side of the 105 H Reactor.  | Interim Closed | WSRF 2006-015 CVP-2006-00003 | Not Documented             | 2004                     | Mar. 24-25 & Apr. 6, 2004  | 73,966 (includes all sites addressed by CVP-2006-00003) | 4.6                                  | Removal of top soil and 4.6 m (15 ft) of underlying soil has been determined to have sufficiently removed all the PCB contamination. Residual soil contamination is protective of groundwater and the Columbia River due to the low mobility of Aroclor-1260 (Kd = 530 mL/g). Sampling of soils underlying the site was not performed. No RESRAD. |                      |                   |                      |                   |     |
| 100-H-32  | French Drain              | 100-HR-2      | 1.2 (depth) x 0.6 (dia.)  | Not Documented     | The site was a French drain that received sump drainage from the 184-H Brine Pit (100-H-16). There is no visual evidence of a French drain at this location. It likely was removed with the associated brine pit   | Rejected       | WSRF 2002-041                | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A   | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 100-H-33  | Retention basin           | 100-HR-1      | 39.0 x 16.5 x 5.0         | 1949-1985          | This site was created to address the radionuclide component of the 183-H Solar Evaporation basins (116-H-6, which is the TSD component).   | No Action      | Not Documented               | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A   | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 100-H-34  | Radioactive Process Sewer | 100-HR-1      | 229.5 x 4.0 x 1.55 (dia.) | Not Documented     | This site includes the river effluent pipelines (river lines) that extend from the outfall (116-H-5) into the main channel of the Columbia River. The river effluent pipelines discharged reactor coolant water to the river. Effluent was received from the 107-H Retention basin and the area process sewer system to the outfall structure. | Accepted       | Not Documented               | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A   | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 100-H-35  | Product Piping            | 100-HR-1      | 10,796.61                 | Not Documented     | The site encompasses the clean water pipelines for 100-H, including underground pipelines used to transport raw water from the river pumphouse to the water treatment facilities and to 100-H facilities and fire hydrants. The waste from the clean water system is considered non-hazardous.   | No Action      | RSVP/WSRF 2011-003           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | Arsenic   | 5                    | /                 | /                    | /                 |     |
|           |                           |               |                           |                    |  |                |                              |                            |                          |                            |   |                                      | Barium  | 99                   | /                 | /                    | /                 |     |
|           |                           |               |                           |                    |  |                |                              |                            |                          |                            |   |                                      | Beryllium   | 0.371                | /                 | /                    | /                 |     |
|           |                           |               |                           |                    |  |                |                              |                            |                          |                            |   |                                      | Boron   | 2.63                 | /                 | /                    | /                 |     |
|           |                           |               |                           |                    |  |                |                              |                            |                          |                            |   |                                      | Cadmium   | 0.172                | /                 | /                    | /                 |     |
|           |                           |               |                           |                    |  |                |                              |                            |                          |                            |   |                                      | Chromium (total)  | 20.7                 | /                 | /                    | /                 |     |
|           |                           |               |                           |                    |  |                |                              |                            |                          |                            |   |                                      | Cobalt  | 6.59                 | /                 | /                    | /                 |     |
|           |                           |               |                           |                    |  |                |                              |                            |                          |                            |   |                                      | Copper  | 15.1                 | /                 | /                    | /                 |     |
|           |                           |               |                           |                    |  |                |                              |                            |                          |                            |   |                                      | Lead  | 5.88                 | /                 | /                    | /                 |     |
|           |                           |               |                           |                    |  |                |                              |                            |                          |                            |   |                                      | Manganese   | 322                  | /                 | /                    | /                 |     |
|           |                           |               |                           |                    |  |                |                              |                            |                          |                            |   |                                      | Molybdenum  | 0.328                | /                 | /                    | /                 |     |
|           |                           |               |                           |                    |  |                |                              |                            |                          |                            |   |                                      | Nickel  | 17.1                 | /                 | /                    | /                 |     |
|           |                           |               |                           |                    |  |                |                              |                            |                          |                            |   |                                      | Vanadium  | 43.6                 | /                 | /                    | /                 |     |
|           |                           |               |                           |                    |  |                |                              |                            |                          |                            |   |                                      | Zinc  | 47.4                 | /                 | /                    | /                 |     |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code              | Site Type               | Operable Unit | Site Dimensions (m)  | Dates of Operation | Site History   | Class Status   | Decision/Closeout Report | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration   |                      |                   |                      | 95% UCL           |     |
|------------------------|-------------------------|---------------|--|--------------------|--|----------------|--------------------------|----------------------------|--------------------------|----------------------------|---|--------------------------------------|-------------------------|----------------------|-------------------|----------------------|-------------------|-----|
|                        |                         |               |  |                    |  |                |                          |                            |                          |                            |   |                                      | COC                     | (pCi/g, mg/kg)       |                   | (pCi/g, mg/kg)       |                   |     |
|                        |                         |               |  |                    |  |                |                          |                            |                          |                            |   |                                      |                         | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |     |
| 100-H-36               | Outfall                 | 100-HR-1      | 7.0 (width)  | Not Documented     | The site is an underground concrete spillway (also referred to as a flume) that led from the 116-H-5 Outfall Structure to the river shoreline. The spillway could have received reactor coolant effluent when the 100-H-34 River Pipelines were blocked, damaged, or undergoing maintenance. There is no corroborated physical or historical evidence that the spillway was ever used. | Accepted       | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A                     | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 100-H-37               | contamination Migration | 100-HR-2      | 35 individual sites covering 25 acres (51,690.43 m <sup>2</sup> )  | 2002-2003          | This site is contamination from mud dauber wasps. The nests are estimated to cover approximately 10.1 ha (25 ac) throughout 100H.  | Interim Closed | WSRF 2010-007            | Jul. 14, 2008              | Dec. 2009                | N/A                        | 19,153 BCM                                      | N/A                                  | Pending final RSVP/CVP. |                      |                   |                      |                   |     |
| 100-H-38               | Burial Ground           | 100-HR-1      | Not Documented   | Not Documented     | Not documented.  | Accepted       | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A                     | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 100-H-39               | Trench                  | 100-HR-1      | 29.87 x 9.1460 x 12; 60.05 x 20.12; 54.86 x 20.12; 29.87 x 9.14  | 1950-?             | The site is four possible thimble pit or trench locations (areas). The sites were used to bury thimbles (process tube components) or materials related to the removal of thimbles.   | Rejected       | WSRF 2010-002            | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A                     | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 100-H-4                | Maintenance Shop        | 100-HR-1      | 12.9 x 9.6 (Hot Shop); 12.89 x 12.5 (Hot Shop); 5.9 x 5 (contaminated Storage Area); 0.7 (dia.) (French Drain) | 1948               | The site is a hot shop, French drain, and contaminated storage. The French drain was located under additional storage (Butler type) areas that were added to the east side of the 1717-H Building.   | Interim Closed | WSRF/RSVP-2011-001       | Jan. 4, 2010               | Jan. 18, 2010            | Sept. 22, 2010             | 3,148 BCM                                       | 4                                    | Nickel-63               | 7.7400               | /                 | 1.6052               | /                 |     |
|                        |                         |               |  |                    |  |                |                          |                            |                          |                            |   |                                      | Uranium-233/234         | 1.6000               | /                 | 1.0997               | /                 |     |
|                        |                         |               |  |                    |  |                |                          |                            |                          |                            |   |                                      | Uranium-238             | 1.2800               | /                 | 0.8645               | /                 |     |
|                        |                         |               |  |                    |  |                |                          |                            |                          |                            |   |                                      | Arsenic                 | 12.9000              | /                 | 7.1699               | /                 |     |
|                        |                         |               |  |                    |  |                |                          |                            |                          |                            |   |                                      | Barium                  | 99.4000              | /                 | 53.3060              | /                 |     |
|                        |                         |               |  |                    |  |                |                          |                            |                          |                            |   |                                      | Beryllium               | 0.3570               | /                 | 0.2430               | /                 |     |
|                        |                         |               |  |                    |  |                |                          |                            |                          |                            |   |                                      | Boron                   | 5.6400               | /                 | 1.6720               | /                 |     |
|                        |                         |               |  |                    |  |                |                          |                            |                          |                            |   |                                      | Cadmium                 | 0.1780               | /                 | 0.1230               | /                 |     |
|                        |                         |               |  |                    |  |                |                          |                            |                          |                            |   |                                      | Chromium (total)        | 14.6000              | /                 | 11.2728              | /                 |     |
|                        |                         |               |  |                    |  |                |                          |                            |                          |                            |   |                                      | Cobalt                  | 6.6700               | /                 | 5.5590               | /                 |     |
|                        |                         |               |  |                    |  |                |                          |                            |                          |                            |   |                                      | Copper                  | 19.2000              | /                 | 15.2735              | /                 |     |
|                        |                         |               |  |                    |  |                |                          |                            |                          |                            |   |                                      | Lead                    | 42.8000              | /                 | 16.7560              | /                 |     |
|                        |                         |               |  |                    |  |                |                          |                            |                          |                            |   |                                      | Manganese               | 308.0000             | /                 | 262.5936             | /                 |     |
|                        |                         |               |  |                    |  |                |                          |                            |                          |                            |   |                                      | Mercury                 | 0.4080               | /                 | /                    | /                 |     |
|                        |                         |               |  |                    |  |                |                          |                            |                          |                            |   |                                      | Molybdenum              | 0.7090               | /                 | 0.4560               | /                 |     |
|                        |                         |               |  |                    |  |                |                          |                            |                          |                            |   |                                      | Nickel                  | 12.4000              | /                 | 10.1655              | /                 |     |
|                        |                         |               |  |                    |  |                |                          |                            |                          |                            |   |                                      | Selenium                | 0.3910               | /                 | /                    | /                 |     |
|                        |                         |               |  |                    |  |                |                          |                            |                          |                            |   |                                      | Vanadium                | 54.4000              | /                 | 50.4865              | /                 |     |
|                        |                         |               |  |                    |  |                |                          |                            |                          |                            |   |                                      | Zinc                    | 46.0000              | /                 | 35.6870              | /                 |     |
|                        |                         |               |  |                    |  |                |                          |                            |                          |                            |   |                                      | TPH - motor oil         | 54.7000              | /                 | 34.8000              | /                 |     |
| Acenaphthene           | 0.0109                  | /             | /  | /                  |  |                |                          |                            |                          |                            |   |                                      |                         |                      |                   |                      |                   |     |
| Benzo(a)anthracene     | 0.0095                  | /             | 0.0032   | /                  |  |                |                          |                            |                          |                            |   |                                      |                         |                      |                   |                      |                   |     |
| Benzo(a)pyrene         | 0.0089                  | /             | 0.0036   | /                  |  |                |                          |                            |                          |                            |   |                                      |                         |                      |                   |                      |                   |     |
| Benzo(b)fluoranthene   | 0.0101                  | /             | 0.0033   | /                  |  |                |                          |                            |                          |                            |   |                                      |                         |                      |                   |                      |                   |     |
| Benzo(ghi)perylene     | 0.0064                  | /             | 0.0029   | /                  |  |                |                          |                            |                          |                            |   |                                      |                         |                      |                   |                      |                   |     |
| Benzo(k)fluoranthene   | 0.0047                  | /             | 0.0021   | /                  |  |                |                          |                            |                          |                            |   |                                      |                         |                      |                   |                      |                   |     |
| Chrysene               | 0.0083                  | /             | 0.0053   | /                  |  |                |                          |                            |                          |                            |   |                                      |                         |                      |                   |                      |                   |     |
| Fluoranthene           | 0.0220                  | /             | 0.0115   | /                  |  |                |                          |                            |                          |                            |   |                                      |                         |                      |                   |                      |                   |     |
| Fluorene               | 0.0030                  | /             | /  | /                  |  |                |                          |                            |                          |                            |   |                                      |                         |                      |                   |                      |                   |     |
| Indeno(1,2,3-cd)pyrene | 0.0311                  | /             | /  | /                  |  |                |                          |                            |                          |                            |   |                                      |                         |                      |                   |                      |                   |     |
| Phenanthrene           | 0.0061                  | /             | 0.0028   | /                  |  |                |                          |                            |                          |                            |   |                                      |                         |                      |                   |                      |                   |     |
| Pyrene                 | 0.0110                  | /             | 0.0080   | /                  |  |                |                          |                            |                          |                            |   |                                      |                         |                      |                   |                      |                   |     |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code | Site Type | Operable Unit | Site Dimensions (m)   | Dates of Operation | Site History   | Class Status | Decision/Closeout Report | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date                | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration  |                      |                   |                      | 95% UCL           |                      |                   |  |
|-----------|-----------|---------------|---|--------------------|--|--------------|--------------------------|----------------------------|--------------------------|---|---|--------------------------------------|------------------------|----------------------|-------------------|----------------------|-------------------|----------------------|-------------------|--|
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | (pCi/g, mg/kg)         |                      | (pCi/g, mg/kg)    |                      | (pCi/g, mg/kg)    |                      | (pCi/g, mg/kg)    |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | COC                    | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Aroclor-1254           | 0.0665               | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Aroclor-1260           | 0.0352               | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | 4,4'-DDE               | 0.0030               | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | 4,4'-DDT               | 0.0016               | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | alpha-Chlordane        | 0.0030               | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | gamma-Chlordane        | 0.0014               | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Focused Samples        |                      |                   |                      |                   |                      |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Uranium-233/234        | 1.4600               | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Uranium-238            | 1.3400               | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Antimony               | 0.3970               | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Arsenic                | 8.3600               | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Barium                 | 79.0000              | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Beryllium              | 0.3070               | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Boron                  | 2.2600               | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Cadmium                | 0.2400               | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Chromium (total)       | 16.9000              | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Cobalt                 | 6.4600               | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Copper                 | 19.3000              | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Lead                   | 18.4000              | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Manganese              | 364.0000             | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Mercury                | 0.0141               | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Molybdenum             | 0.4780               | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Nickel                 | 14.9000              | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Selenium               | 0.3340               | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Vanadium               | 46.4000              | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Zinc                   | 62.5000              | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | TPH - motor oil        | 18.8000              | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Acenaphthene           | 0.0511               | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Aroclor-1254           | 0.0138               | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Aroclor-1260           | 0.0184               | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Benzo(a)anthracene     | 0.0746               | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Benzo(a)pyrene         | 0.0529               | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Benzo(b)fluoranthene   | 0.0441               | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Benzo(ghi)perylene     | 0.0459               | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Benzo(k)fluoranthene   | 0.0272               | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Chrysene               | 0.0313               | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Dibenz(a,h)anthracene  | 0.0066               | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | 4,4'-DDT               | 0.0019               | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Fluoranthene           | 0.0290               | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Fluorene               | 0.0042               | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Indeno(1,2,3-cd)pyrene | 0.0145               | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Phenanthrene           | 0.0021               | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Pyrene                 | 0.0157               | /                 | /                    | /                 | /                    |                   |  |
| 100-H-40  | Trench    | 100-HR-1      | Triangular in shape, with each side measuring ~200 m in length. | 1949-195           | The site is a possible pit used for the disposal of maintenance shop waste such as paint cans and auto repair waste. | No Action    | WSRF/RSVP-2009-065       | N/A                        | N/A                      | confirmatory sampling on Oct. 27-29, 2009 | N/A   | N/A                                  | Antimony               | 2.16 (<BG)           | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Arsenic                | 7.8300               | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Barium                 | 68.6 (<BG)           | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Beryllium              | 0.225 (<BG)          | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Boron                  | 2.8400               | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Cadmium                | 0.469 (<BG)          | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Chromium Total         | 11.9 (<BG)           | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Cobalt                 | 6.59 (<BG)           | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Copper                 | 25.7000              | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Lead                   | 24.4000              | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Manganese              | 325 (<BG)            | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Mercury                | 0.08 (<BG)           | /                 | /                    | /                 | /                    |                   |  |
|           |           |               |   |                    |  |              |                          |                            |                          |   |   |                                      | Molybdenum             | 0.9610               | /                 | /                    | /                 | /                    |                   |  |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code | Site Type         | Operable Unit | Site Dimensions (m) | Dates of Operation | Site History  | Class Status   | Decision/Closeout Report | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration    |                   |                      |                   |   |
|-----------|-------------------|---------------|---------------------|--------------------|---|----------------|--------------------------|----------------------------|--------------------------|----------------------------|---|--------------------------------------|--------------------------|-------------------|----------------------|-------------------|---|
|           |                   |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | (pCi/g, mg/kg)           |                   | 95% UCL              |                   |   |
|           |                   |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Shallow <sup>a</sup>     | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |   |
|           |                   |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | COC                      |                   |                      |                   |   |
|           |                   |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Nickel                   | 13.4 (<BG)        | /                    | /                 | / |
|           |                   |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Vanadium                 | 45.3 (<BG)        | /                    | /                 | / |
|           |                   |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Zinc                     | 83.4000           | /                    | /                 | / |
|           |                   |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | TPH-motor oil            | 170.0000          | /                    | /                 | / |
|           |                   |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | benzo(a)anthracene       | 0.0191            | /                    | /                 | / |
|           |                   |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | benzo(a)pyrene           | 0.0285            | /                    | /                 | / |
|           |                   |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | benzo(b)fluoranthene     | 0.1330            | /                    | /                 | / |
|           |                   |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | benzo(ghi)perylene       | 0.1880            | /                    | /                 | / |
|           |                   |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | benzo(k)fluoranthene     | 0.0018            | /                    | /                 | / |
|           |                   |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Chrysene                 | 0.0444            | /                    | /                 | / |
|           |                   |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Dibenz[a,h]anthracene    | 0.0041            | /                    | /                 | / |
|           |                   |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Fluoranthene             | 0.0131            | /                    | /                 | / |
|           |                   |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Fluorene                 | 0.8540            | /                    | /                 | / |
|           |                   |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Indeno(1, 2, 3-cd)pyrene | 0.0311            | /                    | /                 | / |
|           |                   |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Phenanthrene             | 0.0052            | /                    | /                 | / |
|           |                   |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Pyrene                   | 0.0244            | /                    | /                 | / |
| 100-H-41  | Unplanned Release | 100-HR-1      | 1 x 1               | Not Documented     | Concrete structure within radiologically contaminated area. | Interim Closed | WSRF 2010-003            | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | Arsenic                  | 8.02              | /                    | /                 | / |
|           |                   |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Barium                   | 86.2              | /                    | /                 | / |
|           |                   |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Beryllium                | 0.298             | /                    | /                 | / |
|           |                   |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Boron                    | 1.11              | /                    | /                 | / |
|           |                   |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Cadmium                  | 0.0882            | /                    | /                 | / |
|           |                   |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Chromium (total)         | 18.5              | /                    | /                 | / |
|           |                   |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Cobalt                   | 6.07              | /                    | /                 | / |
|           |                   |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Copper                   | 14.2              | /                    | /                 | / |
|           |                   |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Cr-VI                    | 0.2               | /                    | /                 | / |
|           |                   |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Lead                     | 7.69              | /                    | /                 | / |
|           |                   |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Manganese                | 281               | /                    | /                 | / |
|           |                   |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Molybdenum               | 0.237             | /                    | /                 | / |
|           |                   |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Nickel                   | 15.3              | /                    | /                 | / |
|           |                   |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Vanadium                 | 40.9              | /                    | /                 | / |
|           |                   |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Zinc                     | 46.5              | /                    | /                 | / |
|           |                   |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Fluoride                 | 0.5               | /                    | /                 | / |
|           |                   |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Phosphate                | 2.5               | /                    | /                 | / |
|           |                   |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Sulfate                  | 2.8               | /                    | /                 | / |
|           |                   |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Acenaphthene             | 0.0746            | /                    | /                 | / |
|           |                   |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Acenaphthylene           | 0.104             | /                    | /                 | / |
|           |                   |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Anthracene               | 0.341             | /                    | /                 | / |
|           |                   |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Benzo(a)anthracene       | 1.11              | /                    | /                 | / |
|           |                   |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Benzo(a)pyrene           | 0.971             | /                    | /                 | / |
|           |                   |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Benzo(b)fluoranthene     | .                 | /                    | /                 | / |
|           |                   |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Benzo(ghi)perylene       | 0.431             | /                    | /                 | / |
|           |                   |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Benzo(k)fluoranthene     | 0.396             | /                    | /                 | / |
|           |                   |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Chrysene                 | 0.854             | /                    | /                 | / |
|           |                   |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Dibenz(a,h)anthracene    | 0.123             | /                    | /                 | / |
|           |                   |               |                     |                    |   |                |                          |                            |                          |                            |   |                                      | Fluoranthene             | 2.31              | /                    | /                 | / |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code | Site Type          | Operable Unit | Site Dimensions<br>(m)  | Dates of<br>Operation | Site History   | Class Status | Decision/<br>Closeout Report | Remedial<br>Action Start<br>Date | Remedial<br>Action End<br>Date | Verification<br>Sampling Date          | Contaminated<br>Waste Volume to<br>ERDF (metric<br>tons) | Maximum<br>Depth of<br>Remedial<br>Action (m) | Maximum Concentration  |                      |                   |                      | 95% UCL           |     |
|-----------|--------------------|---------------|---|-----------------------|--|--------------|------------------------------|----------------------------------|--------------------------------|--|--|---|------------------------|----------------------|-------------------|----------------------|-------------------|-----|
|           |                    |               |   |                       |  |              |                              |                                  |                                |  |  |   | COC                    | (pCi/g, mg/kg)       |                   | (pCi/g, mg/kg)       |                   |     |
|           |                    |               |   |                       |  |              |                              |                                  |                                |  |  |   |                        | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |     |
|           |                    |               |   |                       |  |              |                              |                                  |                                |  |  |   | Fluorene               | 0.2                  | /                 | /                    | /                 |     |
|           |                    |               |   |                       |  |              |                              |                                  |                                |  |  |   | Indeno(1,2,3-cd)pyrene | 0.593                | /                 | /                    | /                 |     |
|           |                    |               |   |                       |  |              |                              |                                  |                                |  |  |   | Naphthalene            | 0.622                | /                 | /                    | /                 |     |
|           |                    |               |   |                       |  |              |                              |                                  |                                |  |  |   | Phenanthrene           | 1.31                 | /                 | /                    | /                 |     |
|           |                    |               |   |                       |  |              |                              |                                  |                                |  |  |   | Pyrene                 | 1.53                 | /                 | /                    | /                 |     |
|           |                    |               |   |                       |  |              |                              |                                  |                                |  |  |   | Carbazole              | 0.374                | /                 | /                    | /                 |     |
|           |                    |               |   |                       |  |              |                              |                                  |                                |  |  |   | Dibenzofuran           | 1.63                 | /                 | /                    | /                 |     |
|           |                    |               |   |                       |  |              |                              |                                  |                                |  |  |   | 2-Methylnaphthalene    | 0.501                | /                 | /                    | /                 |     |
| 100-H-42  | Pump Station       | 100-HR-1      | 12.50 x 20.70 x<br>13.70  | 1949-?                | The site consists of the underground reinforced-concrete flume/reservoir filled with building rubble and clean soil. The concrete structure may be in contact with surrounding soil contaminated by past leaks from the structure.   | Accepted     | Not Documented               | N/A                              | N/A                            | N/A                                    | N/A  | N/A   | N/A                    | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 100-H-43  | Foundation         | 100-HR-1      | 28.0 x 23.0 x 6.0<br>(original building);<br>8.40 x 1.44 x 1.37<br>(below grade<br>service pit); 10.0<br>(pipeline); 4.0<br>(pipeline); 42.75<br>(cylinder) | 1943-1974             | This site contains the below grade remnants of the 1716-H Maintenance Garage following its demolition and site leveling in 1974. The facility was used to service the area vehicles.   | Accepted     | Not Documented               | N/A                              | N/A                            | N/A                                    | N/A  | N/A   | N/A                    | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 100-H-44  | Process Unit/Plant | 100-HR-1      | 2.56 x 1.95 x 2.0   | Not Documented        | This site consists of potentially contaminated soils and possibly a concrete structure, acid brick, and piping that may contain contamination associated with the 183-H Neutralization Pit. The Neutralization Pit received sulfuric acid from two storage tanks and one acid head tank and lime slurry from the 183-H Head House.   | Accepted     | Not Documented               | N/A                              | N/A                            | N/A                                    | N/A  | N/A   | N/A                    | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 100-H-45  | Unplanned Release  | 100-HR-1      | 0.73 x 0.67   | 1966-?                | The 1717-H Building housed a machine shop, sheet metal shop, fabrication shop, and carpenter shop that provided services for all of the 100 Area operations. It is unknown if the propane tank shown in the historical construction drawings was ever installed. An orphan site investigation identified the location of the suspected UST on drawing SK-1-7325. The remediation footprint for the former 100-H-21 effluent pipelines extended near the western edge of the 100-H-45 UST, but there is no documentation that indicates whether a tank was found during the pipeline remediation. | No Action    | WSRF/RSVP-2009-064           | N/A                              | N/A                            | confirmatory sampling on Nov. 10, 2009 | N/A  | N/A   | Antimony               | 0.288 (<BG)          | /                 | /                    | /                 |     |
|           |                    |               |   |                       |  |              |                              |                                  |                                |  |  |   | Arsenic                | 1.43 (<BG)           | /                 | /                    | /                 |     |
|           |                    |               |   |                       |  |              |                              |                                  |                                |  |  |   | Barium                 | 32.9 (<BG)           | /                 | /                    | /                 |     |
|           |                    |               |   |                       |  |              |                              |                                  |                                |  |  |   | Beryllium              | 0.129 (<BG)          | /                 | /                    | /                 |     |
|           |                    |               |   |                       |  |              |                              |                                  |                                |  |  |   | Boron                  | 0.5840               | /                 | /                    | /                 |     |
|           |                    |               |   |                       |  |              |                              |                                  |                                |  |  |   | Cadmium                | 0.0544 (<BG)         | /                 | /                    | /                 |     |
|           |                    |               |   |                       |  |              |                              |                                  |                                |  |  |   | Chromium Total         | 9.91 (<BG)           | /                 | /                    | /                 |     |
|           |                    |               |   |                       |  |              |                              |                                  |                                |  |  |   | Cobalt                 | 4.18 (<BG)           | /                 | /                    | /                 |     |
|           |                    |               |   |                       |  |              |                              |                                  |                                |  |  |   | Copper                 | 10.5 (<BG)           | /                 | /                    | /                 |     |
|           |                    |               |   |                       |  |              |                              |                                  |                                |  |  |   | Lead                   | 1.87 (<BG)           | /                 | /                    | /                 |     |
|           |                    |               |   |                       |  |              |                              |                                  |                                |  |  |   | Manganese              | 227 (<BG)            | /                 | /                    | /                 |     |
|           |                    |               |   |                       |  |              |                              |                                  |                                |  |  |   | Molybdenum             | 0.2620               | /                 | /                    | /                 |     |
|           |                    |               |   |                       |  |              |                              |                                  |                                |  |  |   | Nickel                 | 7.78 (<BG)           | /                 | /                    | /                 |     |
|           |                    |               |   |                       |  |              |                              |                                  |                                |  |  |   | Vanadium               | 42.6 (<BG)           | /                 | /                    | /                 |     |
|           |                    |               |   |                       |  |              |                              |                                  |                                |  |  |   | Zinc                   | 28.2 (<BG)           | /                 | /                    | /                 |     |
|           |                    |               |   |                       |  |              |                              |                                  |                                |  |  |   | TPH-diesel             | 1.0800               | /                 | /                    | /                 |     |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code           | Site Type          | Operable Unit | Site Dimensions (m)                               | Dates of Operation | Site History   | Class Status | Decision/Closeout Report       | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration |                      |                   |                      | 95% UCL           |     |
|---------------------|--------------------|---------------|---|--------------------|--|--------------|--------------------------------|----------------------------|--------------------------|----------------------------|---|--------------------------------------|-----------------------|----------------------|-------------------|----------------------|-------------------|-----|
|                     |                    |               |   |                    |  |              |                                |                            |                          |                            |   |                                      | COC                   | (pCi/g, mg/kg)       |                   | (pCi/g, mg/kg)       |                   |     |
|                     |                    |               |   |                    |  |              |                                |                            |                          |                            |   |                                      |                       | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |     |
| 100-H-46            | Process Unit/Plant | 100-HR-1      | Not Documented                                    | Not Documented     | This site consists of potentially contaminated soils, concrete structures, and drain pipes that were beneath the sodium dichromate process equipment, piping, unloading dock, and railroad spur. This site is within the footprint of the 190-H Pumphouse, which was demolished and removed to 1 m (3 ft) below grade in 1977 (WHC-EP-0478). | Accepted     | Not Documented                 | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A                   | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 100-H-47            | Unplanned Release  | 100-HR-1      | 1.0 x 1.34  | Not Documented     | The site is a potential UST that by 2008 may have leaked. This feature was located as an anomaly during a geophysical investigation for another discovery site. The feature has the distinct character of a buried manmade feature, potentially a tank.  | Rejected     | WSRF 2009-058 plus attachments | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A                   | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 100-H-48            | Product Piping     | 100-HR-1      | 1.5 (width)                                       | 1965-?             | The site consists of potentially remaining fuel oil piping that was associated with two former fuel oil USTs that supported the 184-HA boiler house Building. Potentially, fuel oil piping and contaminated underlying soil could be remaining.  | Accepted     | Not Documented                 | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A                   | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 100-H-49:1          | French Drain       | 100-HR-1      | French drains range in size from 5.1 cm to 1.22 m | 1949-?             | This site consists of 4 French drains, the underlying soil of the potentially contaminated French drains, and their associated below grade piping components.  | Accepted     | Not Documented                 | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A                   | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 100-H-49:2          | French Drain       | 100-HR-1      | French drains range in size from 5.1 cm to 1.22 m | 1949-?             | This site consists of 9 French drains, the underlying soil of the potentially contaminated French drains, and their associated below grade piping components.  | No Action    | RSVP/WSRF 2010-096             | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | Carbon-14             | 1.58                 | /                 | /                    | /                 |     |
|                     |                    |               |   |                    |  |              |                                |                            |                          |                            |   |                                      | Cesium-137            | 0.122                | /                 | /                    | /                 |     |
|                     |                    |               |   |                    |  |              |                                |                            |                          |                            |   |                                      | Antimony              | 0.332                | /                 | /                    | /                 |     |
|                     |                    |               |   |                    |  |              |                                |                            |                          |                            |   |                                      | Arsenic               | 8.91                 | /                 | /                    | /                 |     |
|                     |                    |               |   |                    |  |              |                                |                            |                          |                            |   |                                      | Barium                | 175                  | /                 | /                    | /                 |     |
|                     |                    |               |   |                    |  |              |                                |                            |                          |                            |   |                                      | Beryllium             | 0.337                | /                 | /                    | /                 |     |
|                     |                    |               |   |                    |  |              |                                |                            |                          |                            |   |                                      | Boron                 | 5.66                 | /                 | /                    | /                 |     |
|                     |                    |               |   |                    |  |              |                                |                            |                          |                            |   |                                      | Cadmium               | 0.255                | /                 | /                    | /                 |     |
|                     |                    |               |   |                    |  |              |                                |                            |                          |                            |   |                                      | Chromium (total)      | 18.8                 | /                 | /                    | /                 |     |
|                     |                    |               |   |                    |  |              |                                |                            |                          |                            |   |                                      | Cobalt                | 6.82                 | /                 | /                    | /                 |     |
|                     |                    |               |   |                    |  |              |                                |                            |                          |                            |   |                                      | Copper                | 27.2                 | /                 | /                    | /                 |     |
|                     |                    |               |   |                    |  |              |                                |                            |                          |                            |   |                                      | Lead                  | 46.2                 | /                 | /                    | /                 |     |
|                     |                    |               |   |                    |  |              |                                |                            |                          |                            |   |                                      | Manganese             | 291                  | /                 | /                    | /                 |     |
|                     |                    |               |   |                    |  |              |                                |                            |                          |                            |   |                                      | Mercury               | 0.0132               | /                 | /                    | /                 |     |
|                     |                    |               |   |                    |  |              |                                |                            |                          |                            |   |                                      | Molybdenum            | 0.489                | /                 | /                    | /                 |     |
|                     |                    |               |   |                    |  |              |                                |                            |                          |                            |   |                                      | Nickel                | 16.6                 | /                 | /                    | /                 |     |
|                     |                    |               |   |                    |  |              |                                |                            |                          |                            |   |                                      | Silver                | 0.547                | /                 | /                    | /                 |     |
|                     |                    |               |   |                    |  |              |                                |                            |                          |                            |   |                                      | Vanadium              | 48.9                 | /                 | /                    | /                 |     |
|                     |                    |               |   |                    |  |              |                                |                            |                          |                            |   |                                      | Zinc                  | 96.7                 | /                 | /                    | /                 |     |
|                     |                    |               |   |                    |  |              |                                |                            |                          |                            |   |                                      | Chloride              | 10.8                 | /                 | /                    | /                 |     |
| Nitrate as Nitrogen | 4.4                | /             | /   | /                  |  |              |                                |                            |                          |                            |   |                                      |                       |                      |                   |                      |                   |     |
| Sulfate             | 321                | /             | /   | /                  |  |              |                                |                            |                          |                            |   |                                      |                       |                      |                   |                      |                   |     |
| Aroclor-1254        | 0.0516             | /             | /   | /                  |  |              |                                |                            |                          |                            |   |                                      |                       |                      |                   |                      |                   |     |
| Aroclor-1260        | 0.0475             | /             | /   | /                  |  |              |                                |                            |                          |                            |   |                                      |                       |                      |                   |                      |                   |     |
| Total PCBs          | 0.0991             | /             | /   | /                  |  |              |                                |                            |                          |                            |   |                                      |                       |                      |                   |                      |                   |     |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code  | Site Type     | Operable Unit | Site Dimensions (m)                               | Dates of Operation | Site History  | Class Status   | Decision/Closeout Report     | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date          | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration  |                      |                   |                      | 95% UCL           |     |
|------------|---------------|---------------|---|--------------------|---|----------------|------------------------------|----------------------------|--------------------------|-------------------------------------|---|--------------------------------------|------------------------|----------------------|-------------------|----------------------|-------------------|-----|
|            |               |               |   |                    |   |                |                              |                            |                          |                                     |   |                                      | COC                    | (pCi/g, mg/kg)       |                   | (pCi/g, mg/kg)       |                   |     |
|            |               |               |   |                    |   |                |                              |                            |                          |                                     |   |                                      |                        | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |     |
|            |               |               |   |                    |   |                |                              |                            |                          |                                     |   |                                      | beta-BHC               | 0.00306              | /                 | /                    | /                 |     |
|            |               |               |   |                    |   |                |                              |                            |                          |                                     |   |                                      | 4,4'-DDE               | 0.00521              | /                 | /                    | /                 |     |
|            |               |               |   |                    |   |                |                              |                            |                          |                                     |   |                                      | 4,4'-DDT               | 0.00245              | /                 | /                    | /                 |     |
|            |               |               |   |                    |   |                |                              |                            |                          |                                     |   |                                      | Endosulfan sulfate     | 0.00154              | /                 | /                    | /                 |     |
|            |               |               |   |                    |   |                |                              |                            |                          |                                     |   |                                      | Methoxychlor           | 0.00155              | /                 | /                    | /                 |     |
|            |               |               |   |                    |   |                |                              |                            |                          |                                     |   |                                      | TPH - diesel range     | 63.8                 | /                 | /                    | /                 |     |
|            |               |               |   |                    |   |                |                              |                            |                          |                                     |   |                                      | TPH - motor oil        | 121                  | /                 | /                    | /                 |     |
|            |               |               |   |                    |   |                |                              |                            |                          |                                     |   |                                      | Acenaphthene           | 0.213                | /                 | /                    | /                 |     |
|            |               |               |   |                    |   |                |                              |                            |                          |                                     |   |                                      | Acenaphthylene         | 0.316                | /                 | /                    | /                 |     |
|            |               |               |   |                    |   |                |                              |                            |                          |                                     |   |                                      | Anthracene             | 0.0133               | /                 | /                    | /                 |     |
|            |               |               |   |                    |   |                |                              |                            |                          |                                     |   |                                      | Benzo(a)anthracene     | 0.0199               | /                 | /                    | /                 |     |
|            |               |               |   |                    |   |                |                              |                            |                          |                                     |   |                                      | Benzo(a)pyrene         | 0.0337               | /                 | /                    | /                 |     |
|            |               |               |   |                    |   |                |                              |                            |                          |                                     |   |                                      | Benzo(b)fluoranthene   | 0.0878               | /                 | /                    | /                 |     |
|            |               |               |   |                    |   |                |                              |                            |                          |                                     |   |                                      | Benzo(ghi)perylene     | 0.0229               | /                 | /                    | /                 |     |
|            |               |               |   |                    |   |                |                              |                            |                          |                                     |   |                                      | Benzo(k)fluoranthene   | 0.0167               | /                 | /                    | /                 |     |
|            |               |               |   |                    |   |                |                              |                            |                          |                                     |   |                                      | Chrysene               | 0.0316               | /                 | /                    | /                 |     |
|            |               |               |   |                    |   |                |                              |                            |                          |                                     |   |                                      | Dibenz(a,h)anthracene  | 0.0239               | /                 | /                    | /                 |     |
|            |               |               |   |                    |   |                |                              |                            |                          |                                     |   |                                      | Fluoranthene           | 0.248                | /                 | /                    | /                 |     |
|            |               |               |   |                    |   |                |                              |                            |                          |                                     |   |                                      | Fluorene               | 0.089                | /                 | /                    | /                 |     |
|            |               |               |   |                    |   |                |                              |                            |                          |                                     |   |                                      | Indeno(1,2,3-cd)pyrene | 0.0514               | /                 | /                    | /                 |     |
|            |               |               |   |                    |   |                |                              |                            |                          |                                     |   |                                      | Naphthalene            | 0.115                | /                 | /                    | /                 |     |
|            |               |               |   |                    |   |                |                              |                            |                          |                                     |   |                                      | Phenanthrene           | 0.0993               | /                 | /                    | /                 |     |
|            |               |               |   |                    |   |                |                              |                            |                          |                                     |   |                                      | Pyrene                 | 0.0406               | /                 | /                    | /                 |     |
| 100-H-49:3 | French Drain  | 100-HR-1      | French drains range in size from 5.1 cm to 1.22 m |                    | This site consists of 4 French drains, the underlying soil of the potentially contaminated French drains, and their associated below grade piping components. | Rejected       | WSRF-2011-065                | N/A                        | N/A                      | N/A                                 | N/A   | N/A                                  | N/A                    | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 100-H-5    | Burial Ground | 100-HR-1      | 99.97 x 15.8 x 4.6                                | 1953               | Site contains unknown amount of sludge removed from the 116-H-7 Retention basin in 1953.  | Interim Closed | WSRF 2000-117 CVP-2000-00028 | 27-Sep-99                  | 8-Jun-00                 | May 23 to June 8, 2000              | 23,525  | 5.1                                  | Cobalt-60              | 0.044 U              | 0.041 U           | 0.0280               | 0.0401            |     |
|            |               |               |   |                    |   |                |                              |                            |                          |                                     |   |                                      | Cesium-137             | 0.072 J              | 0.035 U           | 0.0427               | 0.0345            |     |
|            |               |               |   |                    |   |                |                              |                            |                          |                                     |   |                                      | Europium-152           | 0.095 U              | 0.077 U           | 0.0655               | 0.0761            |     |
|            |               |               |   |                    |   |                |                              |                            |                          |                                     |   |                                      | Europium-154           | 0.16 U               | 0.13 U            | 0.1010               | 0.1260            |     |
|            |               |               |   |                    |   |                |                              |                            |                          |                                     |   |                                      | Plutonium-238          | 0.024 U              | 0.034 U           | 0.0509               | 0.0459            |     |
|            |               |               |   |                    |   |                |                              |                            |                          |                                     |   |                                      | Plutonium-239/240      | 0.028 U              | 0.014 U           | 0.0371               | 0.0271            |     |
|            |               |               |   |                    |   |                |                              |                            |                          |                                     |   |                                      | Lead                   | 17.0000              | 4.2000            | 8.3000               | 4.3000            |     |
|            |               |               |   |                    |   |                |                              |                            |                          |                                     |   |                                      | Strontium-90           | /                    | 0.045 U           | 0.1920               | 0.4010            |     |
|            |               |               |   |                    |   |                |                              |                            |                          |                                     |   |                                      | Focus Samples          |                      |                   |                      |                   |     |
| 100-H-50   | French Drain  | 100-HR-1      | French drains range in size from 0.46 m to 1.0 m  | 1949-?             | This site consists of 15 discrete locations, underlying soil, and associated below grade piping components for clean "proposed not accepted" French drains.   | No Action      | WSRF/RSVP-2009-009           | N/A                        | N/A                      | Confirmation Sampling Oct. 11, 2010 | N/A   | N/A                                  | Arsenic                | 4.8600               | /                 | /                    | /                 |     |
|            |               |               |   |                    |   |                |                              |                            |                          |                                     |   |                                      | Barium                 | 62.0000              | /                 | /                    | /                 |     |
|            |               |               |   |                    |   |                |                              |                            |                          |                                     |   |                                      | Beryllium              | 0.2720               | /                 | /                    | /                 |     |
|            |               |               |   |                    |   |                |                              |                            |                          |                                     |   |                                      | Boron                  | 2.4200               | /                 | /                    | /                 |     |
|            |               |               |   |                    |   |                |                              |                            |                          |                                     |   |                                      | Cadmium                | 0.1400               | /                 | /                    | /                 |     |
|            |               |               |   |                    |   |                |                              |                            |                          |                                     |   |                                      | Chromium (total)       | 15.1000              | /                 | /                    | /                 |     |
|            |               |               |   |                    |   |                |                              |                            |                          |                                     |   |                                      | Cobalt                 | 6.1300               | /                 | /                    | /                 |     |
|            |               |               |   |                    |   |                |                              |                            |                          |                                     |   |                                      | Copper                 | 13.7000              | /                 | /                    | /                 |     |
|            |               |               |   |                    |   |                |                              |                            |                          |                                     |   |                                      | Lead                   | 12.6000              | /                 | /                    | /                 |     |
|            |               |               |   |                    |   |                |                              |                            |                          |                                     |   |                                      | Manganese              | 284.0000             | /                 | /                    | /                 |     |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code  | Site Type     | Operable Unit | Site Dimensions (m)      | Dates of Operation | Site History   | Class Status | Decision/Closeout Report | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date         | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration |                      |                   |                      | 95% UCL           |     |
|------------|---------------|---------------|--------------------------|--------------------|--|--------------|--------------------------|----------------------------|--------------------------|------------------------------------|---|--------------------------------------|-----------------------|----------------------|-------------------|----------------------|-------------------|-----|
|            |               |               |                          |                    |  |              |                          |                            |                          |                                    |   |                                      | COC                   | (pCi/g, mg/kg)       |                   | (pCi/g, mg/kg)       |                   |     |
|            |               |               |                          |                    |  |              |                          |                            |                          |                                    |   |                                      |                       | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |     |
|            |               |               |                          |                    |  |              |                          |                            |                          |                                    |   |                                      | Mercury               | 0.0343               | /                 | /                    | /                 |     |
|            |               |               |                          |                    |  |              |                          |                            |                          |                                    |   |                                      | Molybdenum            | 0.3610               | /                 | /                    | /                 |     |
|            |               |               |                          |                    |  |              |                          |                            |                          |                                    |   |                                      | Nickel                | 13.6000              | /                 | /                    | /                 |     |
|            |               |               |                          |                    |  |              |                          |                            |                          |                                    |   |                                      | Selenium              | 0.2570               | /                 | /                    | /                 |     |
|            |               |               |                          |                    |  |              |                          |                            |                          |                                    |   |                                      | Vanadium              | 53.2000              | /                 | /                    | /                 |     |
|            |               |               |                          |                    |  |              |                          |                            |                          |                                    |   |                                      | Zinc                  | 45.1000              | /                 | /                    | /                 |     |
| 100-H-51:1 | Process Sewer | 100-HR-1      | 15.2 cm dia.             | Not Documented     | The subsite consists of a 15.2 cm diameter vitrified clay pipe (VCP) sanitary sewer segment. The line connects the 1703-H building with the 100-H-28, 100-H Water Treatment Facilities Underground Pipelines. The subsite also includes a short section of a 10.16 cm soil pipe where the 15.2 cm VCP connects to the 1703-H building.         | Accepted     | Not Documented           | N/A                        | N/A                      | N/A                                | N/A   | N/A                                  | N/A                   | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 100-H-51:2 | Process Sewer | 100-HR-1      | 5.08 cm dia.             | Not Documented     | The subsite consists of a 10 cm diameter cement asbestos feed line that ran from the 117-H Air Filter Building to waste site 116-H-9, 117-H Crib, 117-H Seal Pit Crib.   | Accepted     | Not Documented           | N/A                        | N/A                      | N/A                                | N/A   | N/A                                  | N/A                   | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 100-H-51:3 | Process Sewer | 100-HR-1      | 5.1 cm dia. and 7.6 dia. | Not Documented     | The subsite consists of two parallel pipelines, a 5.1 cm steel brine discharge line and a 7.6 cm steel filtered water line that ran from the 184-H Power House Building to the 184-H Salt Dissolving Pit and Brine Pump House.   | Accepted     | Not Documented           | N/A                        | N/A                      | N/A                                | N/A   | N/A                                  | N/A                   | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 100-H-51:4 | Process Sewer | 100-HR-1      | 210 linear               | 1949-1954          | The subsite consists of a 15.2 cm diameter vitrified clay pipeline (VCP) storm drain that ran north from the 1701-H, 1702-H and 1709-H Buildings to 100-H-27, 100-H Area Patrol Headquarters Storm Runoff Ditch. The pipeline includes two 10.2 cm lateral sections of VCP feed pipe from 1702-H and 1709-H buildings to the 15.2 cm pipeline. | No Action    | WSRF/RSVP-2009-026       | N/A                        | N/A                      | Confirmation Sampling Oct. 7, 2010 | N/A   | N/A                                  | Arsenic               | 5.9400               | /                 | /                    | /                 |     |
|            |               |               |                          |                    |  |              |                          |                            |                          |                                    |   |                                      | Barium                | 112.0000             | /                 | /                    | /                 |     |
|            |               |               |                          |                    |  |              |                          |                            |                          |                                    |   |                                      | Beryllium             | 0.3450               | /                 | /                    | /                 |     |
|            |               |               |                          |                    |  |              |                          |                            |                          |                                    |   |                                      | Boron                 | 1.6500               | /                 | /                    | /                 |     |
|            |               |               |                          |                    |  |              |                          |                            |                          |                                    |   |                                      | Cadmium               | 0.8100               | /                 | /                    | /                 |     |
|            |               |               |                          |                    |  |              |                          |                            |                          |                                    |   |                                      | Chromium (total)      | 13.5000              | /                 | /                    | /                 |     |
|            |               |               |                          |                    |  |              |                          |                            |                          |                                    |   |                                      | Cobalt                | 7.4500               | /                 | /                    | /                 |     |
|            |               |               |                          |                    |  |              |                          |                            |                          |                                    |   |                                      | Copper                | 14.7000              | /                 | /                    | /                 |     |
|            |               |               |                          |                    |  |              |                          |                            |                          |                                    |   |                                      | Lead                  | 6.4700               | /                 | /                    | /                 |     |
|            |               |               |                          |                    |  |              |                          |                            |                          |                                    |   |                                      | Manganese             | 504.0000             | /                 | /                    | /                 |     |
|            |               |               |                          |                    |  |              |                          |                            |                          |                                    |   |                                      | Mercury               | 0.0450               | /                 | /                    | /                 |     |
|            |               |               |                          |                    |  |              |                          |                            |                          |                                    |   |                                      | Molybdenum            | 0.4010               | /                 | /                    | /                 |     |
|            |               |               |                          |                    |  |              |                          |                            |                          |                                    |   |                                      | Nickel                | 12.6000              | /                 | /                    | /                 |     |
|            |               |               |                          |                    |  |              |                          |                            |                          |                                    |   |                                      | Selenium              | 0.2760               | /                 | /                    | /                 |     |
|            |               |               |                          |                    |  |              |                          |                            |                          |                                    |   |                                      | Vanadium              | 46.3000              | /                 | /                    | /                 |     |
|            |               |               |                          |                    |  |              |                          |                            |                          |                                    |   |                                      | Zinc                  | 79.1000              | /                 | /                    | /                 |     |
|            |               |               |                          |                    |  |              |                          |                            |                          |                                    |   |                                      | Acenaphthene          | 2.7400               | /                 | /                    | /                 |     |
|            |               |               |                          |                    |  |              |                          |                            |                          |                                    |   |                                      | Benzo(a)anthracene    | 1.8800               | /                 | /                    | /                 |     |
|            |               |               |                          |                    |  |              |                          |                            |                          |                                    |   |                                      | Benzo(a)pyrene        | 4.9000               | /                 | /                    | /                 |     |
|            |               |               |                          |                    |  |              |                          |                            |                          |                                    |   |                                      | Benzo(b)fluoranthene  | 5.7000               | /                 | /                    | /                 |     |
|            |               |               |                          |                    |  |              |                          |                            |                          |                                    |   |                                      | Benzo(ghi)perylene    | 4.0600               | /                 | /                    | /                 |     |
|            |               |               |                          |                    |  |              |                          |                            |                          |                                    |   |                                      | Benzo(k)fluoranthene  | 2.1900               | /                 | /                    | /                 |     |
|            |               |               |                          |                    |  |              |                          |                            |                          |                                    |   |                                      | Chrysene              | 1.0400               | /                 | /                    | /                 |     |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code  | Site Type     | Operable Unit | Site Dimensions (m) | Dates of Operation | Site History   | Class Status | Decision/Closeout Report       | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration  |                      |                   |                      | 95% UCL           |   |  |  |
|------------|---------------|---------------|---------------------|--------------------|--|--------------|--------------------------------|----------------------------|--------------------------|----------------------------|---|--------------------------------------|------------------------|----------------------|-------------------|----------------------|-------------------|---|--|--|
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | COC                    | (pCi/g, mg/kg)       |                   | (pCi/g, mg/kg)       |                   |   |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      |                        | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |   |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Fluoranthene           | 1.2800               | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Pipeline Focus Sample  |                      |                   |                      |                   |   |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Antimony               | 0.9480               | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Arsenic                | 4.0900               | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Barium                 | 287.0000             | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Beryllium              | 0.2490               | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Boron                  | 2.7200               | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Cadmium                | 18.2000              | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Chromium (total)       | 19.3000              | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Cobalt                 | 4.8900               | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Copper                 | 49.4000              | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Lead                   | 32.8000              | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Manganese              | 207.0000             | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Mercury                | 2.5200               | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Molybdenum             | 1.1700               | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Nickel                 | 10.8000              | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Silver                 | 1.7900               | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Vanadium               | 43.6000              | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Zinc                   | 231.0000             | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Acenaphthene           | 0.1020               | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Acenaphthylene         | 0.0125               | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Anthracene             | 0.0081               | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Benzo(a)anthracene     | 0.0545               | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Benzo(a)pyrene         | 0.0108               | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Benzo(b)fluoranthene   | 0.0274               | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Benzo(ghi)perylene     | 0.2280               | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Benzo(k)fluoranthene   | 0.0932               | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Chrysene               | 0.0298               | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Dibenz(a,h)anthracene  | 0.0281               | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Fluoranthene           | 0.1780               | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Fluorene               | 0.0043               | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Indeno(1,2,3-cd)pyrene | 0.2190               | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Phenanthrene           | 0.0146               | /                 | /                    | /                 | / |  |  |
| 100-H-51:5 | Process Sewer | 100-HR-1      | 25.4 cm dia.        | Not Documented     | The pipeline is located between the Columbia River shoreline and the 1713-H building. It consists of a steel pipe that ran from the Columbia River to the sanitary water system just south of the 1713-H building. | No Action    | RSVP-2009-010<br>WSRF 2011-090 | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | Arsenic                | 3.470                | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Barium                 | 199.000              | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Beryllium              | 0.383                | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Boron                  | 26.300               | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Cadmium                | 0.133                | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Chromium (total)       | 11.400               | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Cobalt                 | 5.800                | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Copper                 | 13.000               | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Lead                   | 6.250                | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Manganese              | 290.000              | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Molybdenum             | 0.440                | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Nickel                 | 10.700               | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Selenium               | 0.221                | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Vanadium               | 38.600               | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Zinc                   | 36.300               | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | TPH - diesel range     | 19.900               | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | TPH - motor oil        | 47.700               | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Acenaphthene           | 0.037                | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Acenaphthylene         | 0.246                | /                 | /                    | /                 | / |  |  |
|            |               |               |                     |                    |  |              |                                |                            |                          |                            |   |                                      | Anthracene             | 0.916                | /                 | /                    | /                 | / |  |  |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code  | Site Type     | Operable Unit | Site Dimensions (m)           | Dates of Operation | Site History   | Class Status | Decision/Closeout Report | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration |                      |                   |                      |                   |     |
|------------|---------------|---------------|-------------------------------|--------------------|--|--------------|--------------------------|----------------------------|--------------------------|----------------------------|---|--------------------------------------|-----------------------|----------------------|-------------------|----------------------|-------------------|-----|
|            |               |               |                               |                    |  |              |                          |                            |                          |                            |   |                                      | 95% UCL               |                      | 95% UCL           |                      |                   |     |
|            |               |               |                               |                    |  |              |                          |                            |                          |                            |   |                                      | (pCi/g, mg/kg)        |                      | (pCi/g, mg/kg)    |                      |                   |     |
|            |               |               |                               |                    |  |              |                          |                            |                          |                            |   |                                      | COC                   | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |     |
|            |               |               |                               |                    |  |              |                          |                            |                          |                            |   |                                      | Benzo(a)anthracene    | 2.970                | /                 | /                    | /                 | /   |
|            |               |               |                               |                    |  |              |                          |                            |                          |                            |   |                                      | Benzo(a)pyrene        | 0.006                | /                 | /                    | /                 | /   |
|            |               |               |                               |                    |  |              |                          |                            |                          |                            |   |                                      | Benzo(b)fluoranthene  | 0.007                | /                 | /                    | /                 | /   |
|            |               |               |                               |                    |  |              |                          |                            |                          |                            |   |                                      | Benzo(ghi)perylene    | 0.008                | /                 | /                    | /                 | /   |
|            |               |               |                               |                    |  |              |                          |                            |                          |                            |   |                                      | Benzo(k)fluoranthene  | 0.004                | /                 | /                    | /                 | /   |
|            |               |               |                               |                    |  |              |                          |                            |                          |                            |   |                                      | Chrysene              | 0.016                | /                 | /                    | /                 | /   |
|            |               |               |                               |                    |  |              |                          |                            |                          |                            |   |                                      | Dibenz(a,h)anthracene | 0.004                | /                 | /                    | /                 | /   |
|            |               |               |                               |                    |  |              |                          |                            |                          |                            |   |                                      | Fluoranthene          | 0.009                | /                 | /                    | /                 | /   |
|            |               |               |                               |                    |  |              |                          |                            |                          |                            |   |                                      | Fluorene              | 0.010                | /                 | /                    | /                 | /   |
|            |               |               |                               |                    |  |              |                          |                            |                          |                            |   |                                      | Naphthalene           | 0.016                | /                 | /                    | /                 | /   |
|            |               |               |                               |                    |  |              |                          |                            |                          |                            |   |                                      | Phenanthrene          | 0.025                | /                 | /                    | /                 | /   |
|            |               |               |                               |                    |  |              |                          |                            |                          |                            |   |                                      | Pyrene                | 0.006                | /                 | /                    | /                 | /   |
| 100-H-51:6 | Process Sewer | 100-HR-1      | 25 cm dia.                    | Not Documented     | This carbon steel pipe was suspected to be connected to the southern side of a temporary wooden water tank. The pipeline is suspected to be a part of an extensive temporary water system used during construction of the 100-H Area.  | Accepted     | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A                   | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 100-H-52   | Septic Tank   | 100-HR-1      | 4.90 x 4.90                   | 1965-1974          | The site consists of a drain field and associated piping that supported the 184-HA boiler Annex. The waste is remaining pipelines and any potentially contaminated soil.   | Accepted     | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A                   | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 100-H-53   | Process Sewer | 100-HR-1      | 1.8 (length); 0.25 (diameter) | Not Documented     | This site is a 25-cm- (10-in.-) diameter, 1.8 m- (6-ft-) long (exposed portion) carbon steel pipe that runs northeast toward the river shore. The process associated with this pipe is unknown. The pipeline may have been related to pre-Hanford Site activities because this type of debris is associated with Site 600-258. Site 600-258 is located on top of the bank and the pipe is located toward the south end of 600-258. | No Action    | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | Cesium-137            | 0.152                | /                 | /                    | /                 |     |
|            |               |               |                               |                    |  |              |                          |                            |                          |                            |   |                                      | Arsenic               | 5.58                 | /                 | /                    | /                 |     |
|            |               |               |                               |                    |  |              |                          |                            |                          |                            |   |                                      | Barium                | 52.3                 | /                 | /                    | /                 |     |
|            |               |               |                               |                    |  |              |                          |                            |                          |                            |   |                                      | Beryllium             | 0.231                | /                 | /                    | /                 |     |
|            |               |               |                               |                    |  |              |                          |                            |                          |                            |   |                                      | Boron                 | 1.31                 | /                 | /                    | /                 |     |
|            |               |               |                               |                    |  |              |                          |                            |                          |                            |   |                                      | Cadmium               | 0.397                | /                 | /                    | /                 |     |
|            |               |               |                               |                    |  |              |                          |                            |                          |                            |   |                                      | Chromium (total)      | 15.9                 | /                 | /                    | /                 |     |
|            |               |               |                               |                    |  |              |                          |                            |                          |                            |   |                                      | Hexavalent chromium   | 1.52                 | /                 | /                    | /                 |     |
|            |               |               |                               |                    |  |              |                          |                            |                          |                            |   |                                      | Cobalt                | 10.5                 | /                 | /                    | /                 |     |
|            |               |               |                               |                    |  |              |                          |                            |                          |                            |   |                                      | Copper                | 15.8                 | /                 | /                    | /                 |     |
|            |               |               |                               |                    |  |              |                          |                            |                          |                            |   |                                      | Lead                  | 35.9                 | /                 | /                    | /                 |     |
|            |               |               |                               |                    |  |              |                          |                            |                          |                            |   |                                      | Manganese             | 300                  | /                 | /                    | /                 |     |
|            |               |               |                               |                    |  |              |                          |                            |                          |                            |   |                                      | Molybdenum            | 3.84                 | /                 | /                    | /                 |     |
|            |               |               |                               |                    |  |              |                          |                            |                          |                            |   |                                      | Nickel                | 13.2                 | /                 | /                    | /                 |     |
|            |               |               |                               |                    |  |              |                          |                            |                          |                            |   |                                      | Vanadium              | 35.1                 | /                 | /                    | /                 |     |
|            |               |               |                               |                    |  |              |                          |                            |                          |                            |   |                                      | Zinc                  | 79.9                 | /                 | /                    | /                 |     |
|            |               |               |                               |                    |  |              |                          |                            |                          |                            |   |                                      | Acenaphthene          | 0.00737              | /                 | /                    | /                 |     |
|            |               |               |                               |                    |  |              |                          |                            |                          |                            |   |                                      | Acenaphthylene        | 0.0368               | /                 | /                    | /                 |     |
|            |               |               |                               |                    |  |              |                          |                            |                          |                            |   |                                      | Benzo(a)anthracene    | 0.0612               | /                 | /                    | /                 |     |
|            |               |               |                               |                    |  |              |                          |                            |                          |                            |   |                                      | Benzo(a)pyrene        | 0.00851              | /                 | /                    | /                 |     |
|            |               |               |                               |                    |  |              |                          |                            |                          |                            |   |                                      | Benzo(b)fluoranthene  | 0.00775              | /                 | /                    | /                 |     |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code | Site Type               | Operable Unit | Site Dimensions (m)  | Dates of Operation | Site History  | Class Status | Decision/Closeout Report  | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date              | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration  |                      |                   |                      | 95% UCL           |     |
|-----------|-------------------------|---------------|----------------------|--------------------|---|--------------|---|----------------------------|--------------------------|---|---|--------------------------------------|--|----------------------|-------------------|----------------------|-------------------|-----|
|           |                         |               |                      |                    |   |              |   |                            |                          |   |   |                                      | COC  | (pCi/g, mg/kg)       |                   | (pCi/g, mg/kg)       |                   |     |
|           |                         |               |                      |                    |   |              |   |                            |                          |   |   |                                      |  | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |     |
|           |                         |               |                      |                    |   |              |   |                            |                          |   |   |                                      | Benzo(ghi)perylene   | 0.00629              | /                 | /                    | /                 |     |
|           |                         |               |                      |                    |   |              |   |                            |                          |   |   |                                      | Benzo(k)fluoranthene   | 0.00334              | /                 | /                    | /                 |     |
|           |                         |               |                      |                    |   |              |   |                            |                          |   |   |                                      | Chrysene   | 0.022                | /                 | /                    | /                 |     |
|           |                         |               |                      |                    |   |              |   |                            |                          |   |   |                                      | Dibenz(a,h)anthracene  | 0.00114              | /                 | /                    | /                 |     |
|           |                         |               |                      |                    |   |              |   |                            |                          |   |   |                                      | Fluoranthene   | 0.0819               | /                 | /                    | /                 |     |
|           |                         |               |                      |                    |   |              |   |                            |                          |   |   |                                      | Fluorene   | 0.00179              | /                 | /                    | /                 |     |
|           |                         |               |                      |                    |   |              |   |                            |                          |   |   |                                      | Indeno(1,2,3-cd)pyrene   | 0.0237               | /                 | /                    | /                 |     |
|           |                         |               |                      |                    |   |              |   |                            |                          |   |   |                                      | Naphthalene  | 0.00663              | /                 | /                    | /                 |     |
|           |                         |               |                      |                    |   |              |   |                            |                          |   |   |                                      | Phenanthrene   | 0.00265              | /                 | /                    | /                 |     |
|           |                         |               |                      |                    |   |              |   |                            |                          |   |   |                                      | Pyrene   | 0.0416               | /                 | /                    | /                 |     |
| 100-H-54  | Unplanned Release       | 100-HR-1      | Not Documented       | Not Documented     | The site is an area of systematically elevated radiological activity, generally less than twice background measurements, as shown in the GPERs plot (Image No. 1, Image No. 2). No survey data have been located for the area between the survey area shown in the images (Image No. 1, Image No. 2) and the 116-H-7 (107-H Retention basin) remediation footprint. | Accepted     | N/A   | N/A                        | N/A                      | N/A                                     | N/A   | N/A                                  | N/A  | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 100-H-55  | Unplanned Release       | 100-HR-2      | Not Documented       | Not Documented     | The waste consists of the pipe and underlying soil. Since the pipe cannot be related to any particular human activity, the contaminants of potential concern are unknown.   | Rejected     | WSRF 2009-056   | N/A                        | N/A                      | N/A                                     | N/A   | N/A                                  | N/A  | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 100-H-56  | Product Piping          | 100-HR-1      | Not Documented       | Not Documented     | The site consists of all 100-H Area miscellaneous pipelines not associated with an existing waste site.   | Accepted     | N/A   | N/A                        | N/A                      | N/A                                     | N/A   | N/A                                  | N/A  | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 100-H-57  | Foundation              | 100-HR-1      | Not Documented       | Not Documented     | The site consists of the underground piping, valves, sumps and other structures at the base of the two elevated water towers adjacent to the 105-H Reactor.   | Accepted     | Not Documented  | N/A                        | N/A                      | N/A                                     | N/A   | N/A                                  | N/A  | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 100-H-58  | contamination Migration | 100-HR-2      | Not Documented       | Not Documented     | The site consists of contaminated mud dauber (wasps) nests in the 100-H Area.   | Accepted     | Not Documented  | N/A                        | N/A                      | N/A                                     | N/A   | N/A                                  | N/A  | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 100-H-59  | Unplanned Release       | 100-HR-1      | 3,250 m <sup>2</sup> | Note Documented    | The site is a 213 meter long trench and contains contaminated railroad bed, including 39 rails, 700 ties and scattered debris. The trench is about 8.5 m deep and extend 0.3 m above the surface.   | Accepted     | Not Documented  | N/A                        | N/A                      | N/A                                     | N/A   | N/A                                  | N/A  | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 100-H-6   | Unplanned Release       | 100-HR-1      | 43.80 m <sup>2</sup> | Not Documented     | The site is a contaminated concrete ramp connected to the 105-H Reactor. Site has been rejected because it is connected to the 105-H Reactor and included with the 118-H-6 Waste Site.  | Not Accepted | TPA-MP-14 WIDS Discovery Site Evaluation checklist approved by the Regulators | N/A                        | N/A                      | N/A                                     | N/A   | N/A                                  | N/A  | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 100-H-7   | French Drain            | 100-HR-1      | 0.762 (dia.)         | Not Documented     | This site is a vertical vitrified clay pipe with metal lid (at surface grade) suspected to be a French drain.   | No Action    | WSRF/RSVP-2008-056  | N/A                        | N/A                      | confirmatory samples taken in Nov. 2008 | N/A   | N/A                                  | Hexavalent Chromium and PCB Aroclor-1260 exceeds the cleanup/screening level based on WAC 173-340 2007. State eco-risk screening levels exceeded for antimony(<BG), bo, cadmium(<BG), cu, lead, manganese(<BG), mercury(<BG), vanadium(<BG), and zinc. |                      |                   |                      |                   |     |
| 100-H-8   | French Drain            | 100-HR-1      | 0.91 (dia.)          | Not Documented     | This site is a vertical 91 cm- (36in.-) diameter concrete pipe (filled with gravel) with steel lid (at surface grade) suspected to be a French drain.   | No Action    | WSRF/RSVP-2006-031  | N/A                        | N/A                      | confirmatory samples taken in Nov. 2008 | N/A   | N/A                                  | Antimony   | 0.5200               |                   |                      |                   |     |
|           |                         |               |                      |                    |   |              |   |                            |                          |   |   |                                      | Arsenic  | 7.3000               |                   |                      |                   |     |
|           |                         |               |                      |                    |   |              |   |                            |                          |   |   |                                      | Barium   | 68.1000              |                   |                      |                   |     |
|           |                         |               |                      |                    |   |              |   |                            |                          |   |   |                                      | Beryllium  | 0.4400               |                   |                      |                   |     |
|           |                         |               |                      |                    |   |              |   |                            |                          |   |   |                                      | Boron  | 1.2000               |                   |                      |                   |     |
|           |                         |               |                      |                    |   |              |   |                            |                          |   |   |                                      | Cadmium  | 0.3400               |                   |                      |                   |     |
|           |                         |               |                      |                    |   |              |   |                            |                          |   |   |                                      | Chromium Total   | 13.5000              |                   |                      |                   |     |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code | Site Type    | Operable Unit | Site Dimensions (m)      | Dates of Operation | Site History  | Class Status   | Decision/Closeout Report        | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons)            | Maximum Depth of Remedial Action (m)  | Maximum Concentration  |                      |                   |                      | 95% UCL           |  |
|-----------|--------------|---------------|--------------------------|--------------------|---|----------------|---------------------------------|----------------------------|--------------------------|----------------------------|--|---|--|----------------------|-------------------|----------------------|-------------------|--|
|           |              |               |                          |                    |   |                |                                 |                            |                          |                            |  |   | COC  | (pCi/g, mg/kg)       |                   | (pCi/g, mg/kg)       |                   |  |
|           |              |               |                          |                    |   |                |                                 |                            |                          |                            |  |   |  | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |  |
|           |              |               |                          |                    |   |                |                                 |                            |                          |                            |  |   | Cobalt   | 8.3000               |                   |                      |                   |  |
|           |              |               |                          |                    |   |                |                                 |                            |                          |                            |  |   | Copper   | 23.4000              |                   |                      |                   |  |
|           |              |               |                          |                    |   |                |                                 |                            |                          |                            |  |   | Lead   | 46.8000              |                   |                      |                   |  |
|           |              |               |                          |                    |   |                |                                 |                            |                          |                            |  |   | Manganese  | 340.0000             |                   |                      |                   |  |
|           |              |               |                          |                    |   |                |                                 |                            |                          |                            |  |   | Mercury  | 0.3100               |                   |                      |                   |  |
|           |              |               |                          |                    |   |                |                                 |                            |                          |                            |  |   | Molybdenum   | 0.9300               |                   |                      |                   |  |
|           |              |               |                          |                    |   |                |                                 |                            |                          |                            |  |   | Nickel   | 15.2000              |                   |                      |                   |  |
|           |              |               |                          |                    |   |                |                                 |                            |                          |                            |  |   | Vanadium   | 63.9000              |                   |                      |                   |  |
|           |              |               |                          |                    |   |                |                                 |                            |                          |                            |  |   | Zinc   | 53.5000              |                   |                      |                   |  |
| 100-H-9   | French Drain | 100-HR-1      | 0.61 (dia.)              | 1949-1965          | Site was a vertical 0.61 m diameter concrete pipe with a rusted metal lid suspected to be a French drain.   | Interim Closed | WSRF 2006-010<br>CVP-2006-00003 | Not Documented             | 2004                     | N/A                        | 73,966<br>(includes all sites addressed by CVP-2006-00003) | 6   | This site did not require further sampling and analysis based on data from analogous french drains surrounding the reactor. Evaluation of analogous reactor french drains indicates possible residual soil contamination at 100-H-9 meets remediation action objectives and goals.   |                      |                   |                      |                   |  |
| 116-H-1   | Trench       | 100-HR-1      | 245.9 x 20.1 x 4.6       | 1952-1965          | Trench received mixed waste effluent from the 116-H-7 Retention basin during reactor shutdown caused by fuel element ruptures and water/sludge during the basin deactivation. Received 9 x 107 L of effluent; 90 kg (41 lb) sodium dichromate. Radiological inventory is 33 Ci.   | Interim Closed | WSRF 2001-013<br>CVP-2000-00026 | 29-Jun-99                  | 25-Jul-00                | Jun. 15 & Jul. 25, 2000    | 82,706   | 7   | Cobalt-60  | 0.058 U              | 2.1200            | 0.0480               | 1.2900            |  |
|           |              |               |                          |                    |   |                |                                 |                            |                          |                            |  |   | Cesium-137   | 0.6890               | 66.0000           | 0.3930               | 37.7000           |  |
|           |              |               |                          |                    |   |                |                                 |                            |                          |                            |  |   | Europium-152   | 0.8360               | 88.8000           | 0.6650               | 52.2000           |  |
|           |              |               |                          |                    |   |                |                                 |                            |                          |                            |  |   | Europium-154   | 0.18 U               | 66.0000           | 0.1670               | 3.8800            |  |
|           |              |               |                          |                    |   |                |                                 |                            |                          |                            |  |   | Europium-155   | 0.13 U               | 0.55 U            | 0.1180               | 0.3310            |  |
|           |              |               |                          |                    |   |                |                                 |                            |                          |                            |  |   | Plutonium-239/240  | 0.068 J              | 1.6400            | 0.0730               | 1.0900            |  |
|           |              |               |                          |                    |   |                |                                 |                            |                          |                            |  |   | Strontium-90   | 1.3500               | 4.1600            | 0.6980               | 2.5300            |  |
|           |              |               |                          |                    |   |                |                                 |                            |                          |                            |  |   | Lead <sup>j</sup>  | 18.0000              | 23.0000           | 11.7000              | 16.0, 0.98        |  |
|           |              |               |                          |                    |   |                |                                 |                            |                          |                            |  |   | Hexavalent Chromium  | 0.5400               | 0.42 U            | 0.4200               | 0.4200            |  |
| 116-H-2   | Trench       | 100-HR-1      | 9.1 x 3.0 x 1.8          | 1953-1965          | Open trench fed by a vitrified clay pipe that originated from the 1608-H Pumphouse. Received 600,000,000 L of effluent; 600 kg (273 lb) sodium dichromate. Radiological inventory is 1.4 Ci.  | Interim Closed | WSRF 2000-119<br>CVP-2000-00031 | Feb. 2, 2000               | Feb. 10, 2000            | Aug. 10-24, 2000           | 19,920   | 2.6   | Cobalt-60  | 0.058 U              | /                 | 0.0500               | /                 |  |
|           |              |               |                          |                    |   |                |                                 |                            |                          |                            |  |   | Cesium-137   | 0.5260               | /                 | 0.2200               | /                 |  |
|           |              |               |                          |                    |   |                |                                 |                            |                          |                            |  |   | Europium-152   | 0.15 U               | /                 | 0.1100               | /                 |  |
|           |              |               |                          |                    |   |                |                                 |                            |                          |                            |  |   | Europium-154   | 0.18 U               | /                 | 0.1500               | /                 |  |
|           |              |               |                          |                    |   |                |                                 |                            |                          |                            |  |   | Plutonium-239/240  | 0.069 U              | /                 | 0.1000               | /                 |  |
|           |              |               |                          |                    |   |                |                                 |                            |                          |                            |  |   | Strontium-90   | /                    | /                 | 0.5000               | /                 |  |
|           |              |               |                          |                    |   |                |                                 |                            |                          |                            |  |   | Strontium (total) <sup>i</sup>   | 1.0700               | /                 | /                    | /                 |  |
|           |              |               |                          |                    |   |                |                                 |                            |                          |                            |  |   | Uranium-238  | 1.0500               | /                 | 0.6200               | /                 |  |
|           |              |               |                          |                    |   |                |                                 |                            |                          |                            |  |   | Hexavalent Chromium  | 0.4700               | /                 | 0.4700               | /                 |  |
| 116-H-3   | French Drain | 100-HR-1      | 4.6 (depth) x 0.9 (dia.) | 1950-1965          | Received rinse water and nitric acid from the decontamination of fuel spacers, process tube caps, and other reactor hardware. consisted of two 0.9 m- (3-ft-) diameter gravel-filled  | Interim Closed | WSRF 2000-135<br>CVP-2000-00032 | Feb. 17, 2000              | Jun. 26, 2000            | Aug.1, 2000                | 2,707  | 4.6   | Cobalt-60  | 0.0550               | 0.8360            | 0.0474               | 0.9020            |  |
|           |              |               |                          |                    |   |                |                                 |                            |                          |                            |  |   | Cesium-137   | 0.053 J              | 10.2000           | 0.0505               | 9.0100            |  |
|           |              |               |                          |                    |   |                |                                 |                            |                          |                            |  |   | Europium-152   | 0.6580               | 23.1000           | 0.4640               | 20.6000           |  |
|           |              |               |                          |                    |   |                |                                 |                            |                          |                            |  |   | Europium-154   | 0.13 U               | 2.1000            | 0.1130               | 1.8700            |  |
|           |              |               |                          |                    |   |                |                                 |                            |                          |                            |  |   | Hexavalent Chromium  | 0.43 U               | 2.0000            | 0.4300               | 2.0000            |  |
| 116-H-4   | Crib         | 100-HR-1      | 3.0 x 3.0 x 3.0          | 1950-1952          | Mixed liquid waste site that received about 1,000 L (254.2 gal) of contaminated cooling water from reactor process tubes containing ruptured fuel elements. A 1953 document reported ~270 Ci and 1,000 kg (454 lb) of sodium dichromate were released into the crib. There are some controversies about these values. After its use was discontinued in 1952, this pluto crib was covered with about 3.0 m (10 ft) of soil and marked with permanent concrete monuments. The pluto crib was uncovered and exhumed in 1960, during construction of the 105-H confinement System, so that the 117-H Filter Building could be constructed at | Accepted       | WSRF/RSVP-2006-044              | 1960                       | 1984                     | none taken                 | No, not directly   | 7.3; crib and 4.3m of underlying soil was exhumed. In 1984, the filter building was demolished and reburied in situ . | "No Action" is based on the evaluation that the crib and resulting soil contamination were removed during the deep excavations required to construct the 117-H Filter Building. Verification sampling of similar 100-Area pluto cribs demonstrates that a remediation depth of at least 4.6m is sufficient to remove the crib and underlying soil contamination. |                      |                   |                      |                   |  |
| 116-H-5   | Outfall      | 100-HR-1      | 8.2 x 4.3 x 6.1          | 1949-1965          | The outfall was a reinforced-concrete weir box that directed the 105-H Reactor coolant water either through the river discharge pipelines (100-H-34) or through the spillway (flume) (100-H-36). Received effluent from the 107-F Retention basins.   | Interim Closed | WSRF 2011-012                   | Nov-08                     | Apr-09                   | Apr-11                     | 2510 BCM   | 13  | Carbon-14  | /                    | /                 | 0.800321431          | 0.89794871        |  |
|           |              |               |                          |                    |   |                |                                 |                            |                          |                            |  |   | Cesium-137   | /                    | /                 | /                    | 0.16114992        |  |

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|-----------|-----------------|---------------|---|--------------------|---|----------------|---|----------------------------|--------------------------|-----------------------------------|---|--------------------------------------|---------------------------------|----------------------|--|----------------------|-------------------|----------------------|-------------------|
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | (pCi/g, mg/kg)                  |                      |  |                      | (pCi/g, mg/kg)    |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | COC                             | Shallow <sup>a</sup> | Deep <sup>b</sup>  | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Cobalt-60                       | /                    | /  | /                    | /                 | 0.04506713           |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Europium-152                    | /                    | /  | /                    | /                 | 1.36873053           |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Nickel-63                       | /                    | /  | 3.715948115          | 3.11132402        |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Strontium-90                    | /                    | /  | 0.357496699          | /                 |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Tritium                         | /                    | /  | 2.08308475           | 2.48719273        |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Uranium-233/234                 | /                    | /  | 0.632958284          | 0.63511613        |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Uranium-238                     | /                    | /  | 0.645743611          | 0.62182004        |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Arsenic                         | /                    | /  | 6.53                 | 6.3               |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Barium                          | /                    | /  | 62.4                 | 69.8              |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Beryllium                       | /                    | /  | 0.198                | 0.089             |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Boron                           | /                    | 1.2  | 1.59                 | /                 |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Cadmium                         | /                    | /  | 0.0853               | 0.089             |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Chromium (total)                | /                    | /  | 12.9                 | 11.6              |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Cobalt                          | /                    | /  | 6.3                  | 6.2               |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Copper                          | /                    | /  | 14.4                 | 15.3              |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Hexavalent chromium             | 0.06                 | /  | /                    | /                 |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Lead                            | /                    | /  | 18.8                 | 18.7              |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Manganese                       | /                    | 0.02   | 269                  | 255               |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Mercury                         | 0.019                | 0.87   | /                    | /                 |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Molybdenum                      | /                    | /  | 0.273                | /                 |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Nickel                          | /                    | /  | 11.5                 | 11.7              |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Vanadium                        | /                    | /  | 48.2                 | 47                |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Zinc                            | /                    | /  | 47.2                 | 43.6              |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Chloride                        | 2.1                  | 17.6   | /                    | /                 |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Fluoride                        | /                    | /  | 0.98                 | 1.3               |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Nitrate as Nitrogen             | /                    | /  | 2.44                 | 34                |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Nitrate and Nitrite as Nitrogen | /                    | /  | 1.9                  | 31.3              |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Nitrite as Nitrogen             | /                    | 0.3958409  | /                    | /                 |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Sulfate                         | /                    | /  | 9.2                  | 55.2              |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Acenaphthene                    | 0.00279              | /  | /                    | /                 |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Anthracene                      | 0.0076               | 0.0051   | /                    | /                 |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Benzo(a)anthracene              | /                    | 0.054  | 0.0208               | /                 |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Benzo(a)pyrene                  | /                    | 0.041  | 0.0188               | /                 |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Benzo(b)fluoranthene            | /                    | 0.051  | 0.014                | /                 |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Benzo(ghi)perylene              | /                    | 0.032  | 0.0117               | /                 |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Benzo(k)fluoranthene            | /                    | 0.03   | 0.00675              | /                 |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Bis(2-ethylhexyl)phthalate      | /                    | /  | /                    | 0.067             |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Chrysene                        | /                    | 0.045  | 0.0236               | /                 |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Dibenz(a,h)anthracene           | 0.00275              | /  | /                    | /                 |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Fluorene                        | 0.00157              | /  | /                    | /                 |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Fluoranthene                    | /                    | 0.069  | 0.0666               | /                 |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Indeno(1,2,3-cd)pyrene          | /                    | 0.035  | 0.0136               | /                 |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Naphthalene                     | 0.015                | /  | /                    | /                 |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Phenanthrene                    | /                    | 0.018  | 0.0217               | /                 |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Pyrene                          | /                    | 0.077  | 0.0254               | /                 |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Aroclor-1260                    | 0.00385              | 0.00731  | /                    | /                 |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | 4,4'-DDE                        | 0.00045              | 0.00212  | /                    | /                 |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | 4,4'-DDD                        | /                    | /  | /                    | /                 |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | 4,4'-DDT                        | /                    | 0.0031   | /                    | /                 |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | TPH - diesel range              | 2.6                  | /  | /                    | /                 |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | TPH - diesel range EXT          | 8.1                  | /  | /                    | /                 |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | TPH - motor oil                 | /                    | /  | 13.352               | 33.76             |                      |                   |
| 116-H-6   | Retention basin | 100-HR-1      | 39.0 x 16.5 x 5.0   | 1949-1985          | Site was a concrete water and treatment basin divided and subdivided for treatment of liquid waste by solar evaporation. Site has been closed out via modified closure certificate. Received 1,514,160 L (399,998 gal) of effluent per year. The retention basin was a RCRA-permitted TSD unit. | Closed Out     | Closure Letter 046651, "Acceptance of Closure Certification for the 183-H Solar Evaporation basins (T-1-4). 96-EAP-246" | 1995                       | May. 5, 1997             |                                   |   |                                      | Not Documented                  | 6.1                  | Clean closure of the site was not achieved due to levels of fluoride and nitrate remaining in the soil. Therefore, the unit was closed under the partial closure option with specified remedial measures provided under postclosure care. Remedial measures included placing a vapor barrier at the bottom of the excavation and replacing the excavated soils with clean, compacted backfill. Postclosure groundwater monitoring will continue at the unit under a WAC 175-303-645, "Releases from Regulated Units," final status permit and compliance monitoring program. |                      |                   |                      |                   |
| 116-H-7   | Retention basin | 100-HR-1      | 194.5 x 86.0 x 7.3 (height). Depth estimated to be 4.6 meters below | 1949-1965          | Site was a concrete-lined rectangular structure that received cooling water effluent from the 105-H Reactor for radioactive decay and thermal cooling.  | Interim Closed | WSRF 2001-026 CVP-2000-00027  | Mar. 17, 1999              | Aug. 24, 2000            | Aug. 10-24, 2000 and Dec. 6, 2000 | 218,130   | 4.8                                  | Cobalt-60                       | 0.053 U              | 10.2000  | 0.0400               | 19.7000           |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Cesium-137                      | 0.2340               | 48.6000  | 0.1140               | 19.2000           |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Europium-152                    | 0.6760               | 116.0000   | 0.2720               | 241.7000          |                      |                   |
|           |                 |               |   |                    |   |                |   |                            |                          |                                   |   |                                      | Europium-154                    | 0.17 U               | 11.6000  | 0.1280               | 18.8000           |                      |                   |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code | Site Type     | Operable Unit | Site Dimensions<br>(m)                             | Dates of<br>Operation | Site History  | Class Status   | Decision/<br>Closeout Report    | Remedial<br>Action Start<br>Date | Remedial<br>Action End<br>Date | Verification<br>Sampling Date | Contaminated<br>Waste Volume to<br>ERDF (metric<br>tons) | Maximum<br>Depth of<br>Remedial<br>Action (m) | Maximum Concentration |                      |                   |                      | 95% UCL           |  |  |
|-----------|---------------|---------------|--|-----------------------|---|----------------|---------------------------------|----------------------------------|--------------------------------|-------------------------------|--|---|-----------------------|----------------------|-------------------|----------------------|-------------------|--|--|
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | (pCi/g, mg/kg)        |                      |                   |                      | (pCi/g, mg/kg)    |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | COC                   | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |  |  |
|           |               |               | ground surface<br>(bgs)                            |                       |   |                |                                 |                                  |                                |                               |  |   | Europium-155          | 0.14 U               | 0.84 U            | 0.1020               | 0.5100            |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Nickel-63             | 3.14 U               | 1530.0000         | 3.0930               | 1224.0000         |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Plutonium-238         | 0.013 U              | 0.486 J           | 0.0590               | 0.1470            |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Plutonium-239/240     | 0.011 U              | 5.5500            | 0.0420               | 1.6000            |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Strontium-90          | 0.0753 U             | 4.2600            | 0.1700               | 2.4700            |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Uranium-238           | 0.71 J               | 0.591 J           | 0.4820               | 0.4600            |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Lead                  | 31.0000              | 16.0000           | 19.3000              | 9.1700            |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Hexavalent Chromium   | 1.1000               | 10.0000           | 0.8980               | 4.0700            |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Chromium Total        | 32.0000              | 110.0000          | 18.5000              | 57.1000           |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Aroclor-1242          | 0.33 U               | 0.3360            | 0.0330               | 0.3300            |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Aroclor-1260          | 0.6600               | 0.6600            | 0.0840               | 0.2400            |  |  |
| 116-H-9   | Crib          | 100-HR-1      | 6.1 x 6.1 x 4.6                                    | 1960-1965             | Site was designed to receive drainage from the 117-H Filter Building seal pits. Received 300,000 L of effluent from 132-H-2 Reactor Exhaust Air Filter building seal pits.  | Interim Closed | WSRF/RSVP-2009-047              | Oct. 28, 2008                    | Feb. 3, 2009                   | Jul. 16, 2009                 | 2,430  | 4.6   | Plutonium-238         | 0.0270               | /                 | 0.0190               | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Uranium-233/234       | 0.7900               | /                 | 0.6410               | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Uranium-238           | 0.88                 | /                 | 0.69                 | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Antimony              | 0.534 J              | /                 | 0.43                 | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Arsenic               | 4.26                 | /                 | 3.59                 | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Barium                | 94.30                | /                 | 67.80                | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Beryllium             | 0.35                 | /                 | 0.27                 | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Boron                 | 1.52 B               | /                 | 1.27                 | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Cadmium               | 0.112 B              | /                 | 0.10                 | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Chromium Total        | 13.40                | /                 | 12.00                | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Cobalt                | 7.75                 | /                 | 6.24                 | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Copper                | 16.20                | /                 | 13.70                | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Hexavalent Chromium   | 0.42                 | /                 | /                    | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Lead                  | 8.84                 | /                 | 6.65                 | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Manganese             | 351.00               | /                 | 283.00               | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Mercury               | 0.0182 B             | /                 | 0.02                 | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Molybdenum            | 0.286 B              | /                 | 0.24                 | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Nickel                | 11.90                | /                 | 10.50                | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Vanadium              | 49.00                | /                 | 42.10                | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Zinc                  | 13.30                | /                 | 36.70                | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Aroclor-1254          | 0.02                 | /                 | /                    | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Aroclor-1260          | 0.01                 | /                 | /                    | /                 |  |  |
| 118-H-1:1 | Burial Ground | 100-HR-2      | 213.4 x 106.7 x 6.1<br>(Includes both<br>subsites) | 1949-1965             | This subsite consists of the original burial ground (trenches A-F) and sorting cells (1-3). The trenches were the primary solid waste burial ground for the 100-H Area. The sorting cells were created during remediation of the burial ground in 2008 and were used to determine the presence of suspect spent nuclear fuel and anomalies. | Interim Closed | CVP-2011-00001<br>WSRF-2011-034 | Jul-08                           | Jun-09                         | Mar-11                        | 34,496 BCM   | 6.5   | Excavation Area A     |                      |                   |                      |                   |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Carbon-14             | /                    | /                 | 1.6                  | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Cesium-137            | /                    | /                 | 0.1                  | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Cobalt-60             | /                    | /                 | 0.1                  | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Europium-152          | /                    | /                 | 0.1                  | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Plutonium-239/240     | /                    | /                 | 0.7                  | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Strontium-90          | /                    | /                 | 0.5                  | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Tritium               | /                    | /                 | 1.9                  | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Arsenic               | /                    | /                 | 3.5                  | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Barium                | /                    | /                 | 50.8                 | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Beryllium             | /                    | /                 | 0.2                  | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Boron                 | /                    | /                 | 1.5                  | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Cadmium               | /                    | /                 | 0.1                  | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Chromium (total)      | /                    | /                 | 10.8                 | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Cobalt                | /                    | /                 | 5.6                  | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Copper                | /                    | /                 | 13.0                 | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Lead                  | /                    | /                 | 7.1                  | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Manganese             | /                    | /                 | 253.0                | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Mercury               | 0.018                | /                 | /                    | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Molybdenum            | /                    | /                 | 0.4                  | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Nickel                | /                    | /                 | 10.6                 | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Selenium              | 1.000                | /                 | /                    | /                 |  |  |
|           |               |               |  |                       |   |                |                                 |                                  |                                |                               |  |   | Vanadium              | /                    | /                 | 43.9                 | /                 |  |  |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code | Site Type | Operable Unit | Site Dimensions (m) | Dates of Operation | Site History | Class Status | Decision/Closeout Report | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration       |                      |                   |                      | 95% UCL           |  |
|-----------|-----------|---------------|---------------------|--------------------|--------------|--------------|--------------------------|----------------------------|--------------------------|----------------------------|---|--------------------------------------|-----------------------------|----------------------|-------------------|----------------------|-------------------|--|
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | (pCi/g, mg/kg)              |                      |                   |                      | (pCi/g, mg/kg)    |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | COC                         | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Zinc                        | /                    | /                 | 33.6                 | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | trate and Nitrite as Nitrog | /                    | /                 | 3.0                  | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | TPH - motor oil             | /                    | /                 | 0.008                | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Acenaphthene                | 0.0051               | /                 | /                    | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Acenaphthylene              | 2.510                | /                 | /                    | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Anthracene                  | 0.006                | /                 | /                    | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Benzo(a)anthracene          | /                    | /                 | 0.011                | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Benzo(a)pyrene              | /                    | /                 | 0.009                | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Benzo(b)fluoranthene        | /                    | /                 | 0.008                | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Benzo(ghi)perylene          | /                    | /                 | 0.005                | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Benzo(k)fluoranthene        | /                    | /                 | 0.005                | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Chrysene                    | /                    | /                 | 0.006                | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Dibenz(a,h)anthracene       | 0.003                | /                 | /                    | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Fluoranthene                | /                    | /                 | 16.100               | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Indeno(1,2,3-cd)pyrene      | /                    | /                 | 0.008                | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Naphthalene                 | 0.003                | /                 | /                    | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Phenanthrene                | /                    | /                 | 5.660                | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Pyrene                      | /                    | /                 | 0.021                | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Excavation Area B           |                      |                   |                      |                   |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Carbon-14                   | /                    | /                 | 1.705                | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Cesium-137                  | /                    | /                 | 0.314                | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Cobalt-60                   | /                    | /                 | 0.083                | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Europium-152                | /                    | /                 | 0.129                | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Nickel-63                   | /                    | /                 | 3.394                | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Strontium-90                | /                    | /                 | 0.754                | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Tritium                     | /                    | /                 | 1.166                | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Antimony                    | 0.257                | /                 | /                    | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Arsenic                     | /                    | /                 | 2.990                | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Barium                      | /                    | /                 | 51.600               | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Beryllium                   | /                    | /                 | 0.183                | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Boron                       | /                    | /                 | 1.720                | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Cadmium                     | /                    | /                 | 0.132                | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Chromium (total)            | /                    | /                 | 12.100               | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Cobalt                      | /                    | /                 | 5.590                | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Copper                      | /                    | /                 | 14.500               | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Lead                        | /                    | /                 | 3.760                | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Manganese                   | /                    | /                 | 255                  | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Molybdenum                  | /                    | /                 | 0.289                | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Mercury                     | 0.057                | /                 | /                    | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Nickel                      | /                    | /                 | 11.900               | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Vanadium                    | /                    | /                 | 46.000               | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Zinc                        | /                    | /                 | 34.300               | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | trate and Nitrite as Nitrog | /                    | /                 | 1.520                | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Acenaphthene                | 0.002                | /                 | /                    | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Acenaphthylene              | 0.012                | /                 | /                    | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Anthracene                  | 0.000                | /                 | /                    | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Benzo(a)anthracene          | 0.009                | /                 | /                    | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Benzo(a)pyrene              | 9.190                | /                 | /                    | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Benzo(b)fluoranthene        | 0.008                | /                 | /                    | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Fluoranthene                | /                    | /                 | 5.8                  | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Phenanthrene                | /                    | /                 | 6.0                  | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Oveburden                   |                      |                   |                      |                   |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Carbon-14                   | /                    | /                 | 1.3                  | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Cesium-137                  | /                    | /                 | 0.1                  | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Antimony                    | /                    | /                 | 0.5                  | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Arsenic                     | /                    | /                 | 5.9                  | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Barium                      | /                    | /                 | 99.7                 | /                 |  |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Beryllium                   | /                    | /                 | 0.3                  | /                 |  |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code | Site Type | Operable Unit | Site Dimensions<br>(m) | Dates of<br>Operation | Site History | Class Status | Decision/<br>Closeout Report | Remedial<br>Action Start<br>Date | Remedial<br>Action End<br>Date | Verification<br>Sampling Date | Contaminated<br>Waste Volume to<br>ERDF (metric<br>tons) | Maximum<br>Depth of<br>Remedial<br>Action (m) | Maximum Concentration       |                      |                   |                      | 95% UCL           |  |  |
|-----------|-----------|---------------|------------------------|-----------------------|--------------|--------------|------------------------------|----------------------------------|--------------------------------|-------------------------------|--|---|-----------------------------|----------------------|-------------------|----------------------|-------------------|--|--|
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | (pCi/g, mg/kg)              |                      |                   |                      | (pCi/g, mg/kg)    |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | COC                         | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Boron                       | /                    | /                 | 6.2                  | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Cadmium                     | /                    | /                 | 0.1                  | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Chromium (total)            | /                    | /                 | 13.4                 | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Cobalt                      | /                    | /                 | 7.7                  | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Copper                      | /                    | /                 | 16.2                 | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Lead                        | /                    | /                 | 21.0                 | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Manganese                   | /                    | /                 | 341.0                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Mercury                     | 0.011                | /                 | /                    | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Molybdenum                  | /                    | /                 | 0.366                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Nickel                      | /                    | /                 | 13.100               | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Selenium                    | 0.326                | /                 | /                    | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Silver                      | /                    | /                 | 0.388                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Vanadium                    | /                    | /                 | 57.2                 | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Zinc                        | /                    | /                 | 44.0                 | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | trate and Nitrite as Nitrog | /                    | /                 | 7.1                  | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | TPH - diesel range          | /                    | /                 | 5.3                  | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | TPH - motor oil             | /                    | /                 | 14.8                 | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Acenaphthene                | /                    | /                 | 0.100                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Acenaphthylene              | 0.250                | /                 | /                    | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Anthracene                  | /                    | /                 | 0.007                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Benzo(a)anthracene          | /                    | /                 | 0.057                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Benzo(a)pyrene              | /                    | /                 | 0.102                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Benzo(b)fluoranthene        | /                    | /                 | 0.043                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Chrysene                    | /                    | /                 | 0.122                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Dibenz(a,h)anthracene       | 0.001                | /                 | /                    | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Fluoranthene                | /                    | /                 | 0.384                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Fluorene                    | /                    | /                 | 6.050                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Indeno(1,2,3-cd)pyrene      | /                    | /                 | 0.101                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Naphthalene                 | 0.028                | /                 | /                    | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Phenanthrene                | /                    | /                 | 0.081                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Pyrene                      | /                    | /                 | 0.215                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Aroclor-1254                | 0.008                | /                 | /                    | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Sorting Cell                |                      |                   |                      |                   |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Carbon-14                   | /                    | /                 | 1.081                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Cesium-137                  | /                    | /                 | 0.398                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Cobalt-60                   | /                    | /                 | 0.040                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Europium-152                | /                    | /                 | 0.072                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Strontium-90                | /                    | /                 | 0.257                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Tritium                     | /                    | /                 | 1.826                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Arsenic                     | /                    | /                 | 3.340                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Barium                      | /                    | /                 | 47.9                 | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Beryllium                   | /                    | /                 | 0.182                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Boron                       | /                    | /                 | 1.260                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Cadmium                     | /                    | /                 | 0.108                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Chromium (total)            | /                    | /                 | 11.9                 | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Cobalt                      | /                    | /                 | 5.3                  | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Copper                      | /                    | /                 | 13.2                 | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Lead                        | /                    | /                 | 6.1                  | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Manganese                   | /                    | /                 | 254                  | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Mercury                     | 0.032                | /                 | /                    | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Molybdenum                  | /                    | /                 | 0.319                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Nickel                      | /                    | /                 | 10.8                 | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Silver                      | 0.131                | /                 | /                    | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Vanadium                    | /                    | /                 | 42.5                 | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Zinc                        | /                    | /                 | 32.2                 | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | trate and Nitrite as Nitrog | /                    | /                 | 3.050                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | TPH - motor oil             | 8.940                | /                 | /                    | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Benzo(a)pyrene              | /                    | /                 | 0.002                | /                 |  |  |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code | Site Type | Operable Unit | Site Dimensions (m) | Dates of Operation | Site History | Class Status | Decision/Closeout Report | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration |                            |                      |                   |       |   |
|-----------|-----------|---------------|---------------------|--------------------|--------------|--------------|--------------------------|----------------------------|--------------------------|----------------------------|---|--------------------------------------|-----------------------|----------------------------|----------------------|-------------------|-------|---|
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | (pCi/g, mg/kg)        |                            | 95% UCL              |                   |       |   |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | Shallow <sup>a</sup>  | Deep <sup>b</sup>          | Shallow <sup>a</sup> | Deep <sup>b</sup> |       |   |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      | COC                   |                            |                      |                   |       |   |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Acenaphthene               | 0.005                | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Benzo(a)anthracene         | 0.002                | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Benzo(ghi)perylene         | 0.002                | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Benzo(b)fluoranthene       | /                    | /                 | 0.002 | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Benzo(k)fluoranthene       | 1.300                | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Chrysene                   | 0.002                | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Fluoranthene               | /                    | /                 | 0.003 | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Indeno(1,2,3-cd)pyrene     | 0.002                | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Phenanthrene               | /                    | /                 | 0.003 | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Pyrene                     | 0.007                | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Focus Samples              |                      |                   |       |   |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Carbon-14                  | 2.120                | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Cesium-137                 | 1.020                | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Cobalt-60                  | 0.062                | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Europium-152               | 0.302                | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Nickel-63                  | 10.8                 | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Plutonium-239/240          | 0.351                | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Strontium-90               | 1.410                | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Tritium                    | 8.690                | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Antimony                   | 0.226                | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Arsenic                    | 4.110                | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Barium                     | 98.3                 | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Beryllium                  | 0.206                | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Boron                      | 4.160                | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Cadmium                    | 0.306                | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Chromium (total)           | 22.0                 | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Cobalt                     | 7.7                  | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Copper                     | 18.7                 | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Lead                       | 10.9                 | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Manganese                  | 295                  | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Mercury                    | 0.202                | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Molybdenum                 | 0.294                | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Nickel                     | 12.0                 | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Vanadium                   | 44.9                 | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Zinc                       | 40.700               | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | rate and Nitrite as Nitrog | 3.480                | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | TPH - diesel range         | 17500                | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | TPH - motor oil            | 30.3                 | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Acenaphthene               | 0.005                | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Benzo(a)anthracene         | 0.005                | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Benzo(a)pyrene             | 0.000                | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Benzo(b)fluoranthene       | 0.010                | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Benzo(ghi)perylene         | 0.005                | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Benzo(k)fluoranthene       | 0.002                | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Chrysene                   | 0.025                | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Dibenz(a,h)anthracene      | 0.001                | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Fluoranthene               | 0.013                | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Indeno(1,2,3-cd)pyrene     | 0.015                | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Naphthalene                | 8.240                | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Phenanthrene               | 0.005                | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Pyrene                     | 0.011                | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Aroclor-1254               | 0.029                | /                 | /     | / |
|           |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |                       | Aroclor-1260               | 0.028                | /                 | /     | / |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code | Site Type     | Operable Unit | Site Dimensions (m)                             | Dates of Operation | Site History   | Class Status   | Decision/Closeout Report        | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration  |                      |                   |                      | 95% UCL           |  |  |
|-----------|---------------|---------------|---|--------------------|--|----------------|---------------------------------|----------------------------|--------------------------|----------------------------|---|--------------------------------------|------------------------|----------------------|-------------------|----------------------|-------------------|--|--|
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | COC                    | (pCi/g, mg/kg)       |                   | (pCi/g, mg/kg)       |                   |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      |                        | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |  |  |
| 118-H-1:2 | Burial Ground | 100-HR-2      | 213.4 x 106.7 x 6.1<br>(Includes both subsites) | 1949-1965          | This subsite consists of the two anomaly staging areas and a fuel bunker. The anomalies stored there included lead bricks, process tubing, oil drums, and miscellaneous reactor hardware. The fuel bunker was constructed to store pieces of reactor fuel prior to characterization and dismantling. | Interim Closed | CVP-2011-00003<br>WSRF-2011-068 | Feb-11                     | Jun-11                   | May-17                     | 352 BCM   | 0.3                                  | Tritium                | /                    | /                 | 0.019258465          | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Arsenic                | /                    | /                 | 4.5                  | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Barium                 | /                    | /                 | 87.9                 | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Beryllium              | /                    | /                 | 0.19                 | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Boron                  | /                    | /                 | 2.3                  | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Cadmium                | /                    | /                 | 0.14                 | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Chromium (total)       | /                    | /                 | 12.8                 | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Cobalt                 | /                    | /                 | 8.2                  | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Copper                 | /                    | /                 | 17                   | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Hexavalent chromium    | /                    | /                 | 0.51                 | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Lead                   | /                    | /                 | 11.2                 | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Manganese              | /                    | /                 | 338                  | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Mercury                | 0.01                 | /                 | /                    | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Molybdenum             | 0.0004               | /                 | /                    | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Nickel                 | /                    | /                 | 12.9                 | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Vanadium               | /                    | /                 | 44.1                 | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Zinc                   | /                    | /                 | 43.7                 | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | TPH - diesel range     | 0.0076               | /                 | /                    | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | TPH - diesel range EXT | /                    | /                 | 4.26                 | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Anthracene             | 0.012                | /                 | /                    | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Benzo(a)anthracene     | 0.089                | /                 | /                    | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Benzo(a)pyrene         | 0.11                 | /                 | /                    | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Benzo(b)fluoranthene   | 0.074                | /                 | /                    | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Benzo(ghi)perylene     | 0.06                 | /                 | /                    | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Benzo(k)fluoranthene   | 0.04                 | /                 | /                    | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Chrysene               | 0.096                | /                 | /                    | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Fluoranthene           | 0.24                 | /                 | /                    | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Fluorene               | 0.0073               | /                 | /                    | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Indeno(1,2,3-cd)pyrene | 0.68                 | /                 | /                    | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Phenanthrene           | 130                  | /                 | /                    | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Pyrene                 | 0.26                 | /                 | /                    | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Focus Samples          |                      |                   |                      |                   |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Carbon-14              | 0.806                | /                 | /                    | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Arsenic                | 3.7                  | /                 | /                    | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Barium                 | 53.7                 | /                 | /                    | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Beryllium              | 0.11                 | /                 | /                    | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Boron                  | 1.3                  | /                 | /                    | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Cadmium                | 0.12                 | /                 | /                    | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Chromium (total)       | 12                   | /                 | /                    | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Cobalt                 | 6.6                  | /                 | /                    | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Copper                 | 15.1                 | /                 | /                    | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Hexavalent chromium    | 0.369                | /                 | /                    | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Lead                   | 11.7                 | /                 | /                    | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Manganese              | 273                  | /                 | /                    | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Nickel                 | 12.2                 | /                 | /                    | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Vanadium               | 37.1                 | /                 | /                    | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Zinc                   | 36.8                 | /                 | /                    | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | TPH - diesel range     | 2.4                  | /                 | /                    | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | TPH - diesel range EXT | 4.1                  | /                 | /                    | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Anthracene             | 0.0076               | /                 | /                    | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Benzo(a)anthracene     | 0.043                | /                 | /                    | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Benzo(a)pyrene         | 0.033                | /                 | /                    | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Benzo(b)fluoranthene   | 0.035                | /                 | /                    | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Benzo(ghi)perylene     | 0.011                | /                 | /                    | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Benzo(k)fluoranthene   | 0.016                | /                 | /                    | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Chrysene               | 0.035                | /                 | /                    | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Fluoranthene           | 0.083                | /                 | /                    | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Indeno(1,2,3-cd)pyrene | 0.026                | /                 | /                    | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Phenanthrene           | 0.031                | /                 | /                    | /                 |  |  |
|           |               |               |   |                    |  |                |                                 |                            |                          |                            |   |                                      | Pyrene                 | 0.052                | /                 | /                    | /                 |  |  |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code | Site Type     | Operable Unit | Site Dimensions (m)                                  | Dates of Operation | Site History   | Class Status   | Decision/Closeout Report        | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m)   | Maximum Concentration           |                      |                   |                      | 95% UCL           |                      |                   |  |  |  |  |  |  |
|-----------|---------------|---------------|--|--------------------|--|----------------|---------------------------------|----------------------------|--------------------------|----------------------------|---|--|---------------------------------|----------------------|-------------------|----------------------|-------------------|----------------------|-------------------|--|--|--|--|--|--|
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | (pCi/g, mg/kg)                  |                      | (pCi/g, mg/kg)    |                      | (pCi/g, mg/kg)    |                      | (pCi/g, mg/kg)    |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | COC                             | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |  |  |  |  |  |  |
| 118-H-2   | Burial Ground | 100-HR-2      | 42.7 x 15.2  | 1955-1965          | This site consists of two in-line concrete vaults. The east vault received one stainless steel double tube removed from the reactor in 1955 after several years of irradiation. Within the same area, there are solutions that were used to clean the tube and miscellaneous capsule components. The west vault was constructed in 1958 and used during deactivation of the 105-H Reactor for disposal of a small amount of contaminated pipe. | Interim Closed | WSRF 2010-023<br>CVP-2010-00002 | Apr. 20, 2009              | Jun. 16, 2009            | Jan. 26 & 27, 2010         | 4,366+BCM                                       | 5<br>(one decision unit, shallow zone) | Cesium-137                      | 0.2950               | /                 | 0.0810               | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Cobalt-60                       | 0.2140               | /                 | 0.0660               | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Nickel-63                       | 13.4000              | /                 | 2.3600               | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Uranium-233/234                 | 0.6490               | /                 | 0.4950               | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Uranium-235                     | 0.0320               | /                 | 0.0560               | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Uranium-238                     | 0.6910               | /                 | 0.5590               | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Arsenic                         | 8.4700               | /                 | 5.3100               | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Barium                          | 78.8000              | /                 | 64.4000              | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Beryllium                       | 0.2830               | /                 | 0.2260               | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Boron                           | 1.9200               | /                 | 1.3800               | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Cadmium                         | 0.100 B              | /                 | 0.0863               | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Chromium Total                  | 11.3000              | /                 | 10.1000              | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Cobalt                          | 6.1800               | /                 | 5.8200               | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Copper                          | 15.7000              | /                 | 13.9000              | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Hexavalent chromium             | 0.2400               | /                 | 0.1400               | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Lead                            | 29.0000              | /                 | 18.2000              | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Manganese                       | 296.0000             | /                 | 266.0000             | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Mercury                         | 0.0145               | /                 | /                    | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Molybdenum                      | 0.424 B              | /                 | 0.3050               | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Nickel                          | 19.4000              | /                 | 11.5000              | /                 |                      |                   |  |  |  |  |  |  |
| Vanadium  | 46.3000       | /             | 41.9000  | /                  |  |                |                                 |                            |                          |                            |   |  |                                 |                      |                   |                      |                   |                      |                   |  |  |  |  |  |  |
| Zinc      | 37.2000       | /             | 34.1000  | /                  |  |                |                                 |                            |                          |                            |   |  |                                 |                      |                   |                      |                   |                      |                   |  |  |  |  |  |  |
| 118-H-3   | Burial Ground | 100-HR-2      | 30 x 114 x 95 x 122 (uneven polygon) x 6.096 (depth) | 1953-1957          | The burial ground received components and hardware from reactor modification programs. The site contains sections of contaminated 41 cm- (16.1-in.-) diameter pipe used as chutes for removal of thimbles from the 105-H Building during outages, reactor hardware, and components from reactor modification programs.   | Interim Closed | WSRF-2010-044/CVP-2010-00006    | 4-Mar-09                   | 22-Apr-09                | 15-Apr-10                  | 6384 BCM  | 5.5 m                                  | Uranium-233/234                 | 0.89                 | /                 | 0.68                 | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Uranium-235                     | 0.03                 | /                 | 0.06                 | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Uranium-238                     | 0.80                 | /                 | 0.62                 | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Antimony                        | 1.14                 | /                 | /                    | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Arsenic                         | 5.44                 | /                 | 4.85                 | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Barium                          | 141.00               | /                 | 89.00                | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Beryllium                       | 0.59                 | /                 | 0.33                 | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Boron                           | 7.03                 | /                 | 3.08                 | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Cadmium                         | 0.36                 | /                 | 0.15                 | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Chromium (total)                | 18.60                | /                 | 13.60                | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Cobalt                          | 10.20                | /                 | 6.97                 | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Copper                          | 40.90                | /                 | 22.80                | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Hexavalent chromium             | 0.08                 | /                 | /                    | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Lead                            | 10.30                | /                 | 7.75                 | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Manganese                       | 560.00               | /                 | 339.00               | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Mercury                         | 0.01                 | /                 | /                    | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Molybdenum                      | 2.67                 | /                 | 0.88                 | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Nickel                          | 19.30                | /                 | 15.40                | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Silver                          | 0.42                 | /                 | /                    | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Vanadium                        | 51.30                | /                 | 45.60                | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Zinc                            | 242.00               | /                 | 86.10                | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Aroclor-1260                    | 68.8000              | /                 | /                    | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Trench A and Waste Staging Pile |                      |                   |                      |                   |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Uranium-233/234                 | 0.81                 | /                 | 0.60                 | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Uranium-238                     | 1.15                 | /                 | 0.62                 | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Arsenic                         | 4.38                 | /                 | 3.12                 | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Barium                          | 108.00               | /                 | 75.34                | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Beryllium                       | 0.42                 | /                 | 0.26                 | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Boron                           | 3.28                 | /                 | 2.15                 | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Cadmium                         | 0.13                 | /                 | 0.10                 | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Chromium (total)                | 14.40                | /                 | 11.90                | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Cobalt                          | 7.81                 | /                 | 6.17                 | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Copper                          | 18.00                | /                 | 14.08                | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Hexavalent chromium             | 0.40                 | /                 | /                    | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Lead                            | 14.70                | /                 | 7.21                 | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Manganese                       | 372.00               | /                 | 307.00               | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Mercury                         | 0.02                 | /                 | /                    | /                 |                      |                   |  |  |  |  |  |  |
|           |               |               |  |                    |  |                |                                 |                            |                          |                            |   |  | Molybdenum                      | 0.32                 | /                 | 0.28                 | /                 |                      |                   |  |  |  |  |  |  |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code | Site Type     | Operable Unit | Site Dimensions (m) | Dates of Operation | Site History   | Class Status   | Decision/Closeout Report        | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration |                      |                   |                          |                   |         |       |
|-----------|---------------|---------------|---------------------|--------------------|--|----------------|---------------------------------|----------------------------|--------------------------|----------------------------|---|--------------------------------------|-----------------------|----------------------|-------------------|--------------------------|-------------------|---------|-------|
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      | (pCi/g, mg/kg)        |                      | 95% UCL           |                          |                   |         |       |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      | COC                   | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup>     | Deep <sup>b</sup> |         |       |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      | Nickel                | 13.20                | /                 | 10.87                    | /                 |         |       |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      | Vanadium              | 51.10                | /                 | 45.48                    | /                 |         |       |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      | Zinc                  | 48.10                | /                 | 39.30                    | /                 |         |       |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      | Aroclor-1260          | 9.44                 | /                 | /                        | /                 |         |       |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      | Focused Samples       |                      |                   |                          |                   |         |       |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      | Cesium-137            | 0.23                 | /                 | /                        | /                 |         |       |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      | Cobalt-60             | 0.53                 | /                 | /                        | /                 |         |       |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      | Nickel-63             | 8.76                 | /                 | /                        | /                 |         |       |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      | Uranium-233/234       | 1.07                 | /                 | /                        | /                 |         |       |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      | Uranium-238           | 0.95                 | /                 | /                        | /                 |         |       |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      | Arsenic               | 4.80                 | /                 | /                        | /                 |         |       |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      | Barium                | 56.70                | /                 | /                        | /                 |         |       |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      | Beryllium             | 0.21                 | /                 | /                        | /                 |         |       |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      | Boron                 | 2.63                 | /                 | /                        | /                 |         |       |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      | Cadmium               | 0.81                 | /                 | /                        | /                 |         |       |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      | Chromium (total)      | 9.11                 | /                 | /                        | /                 |         |       |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      | Cobalt                | 5.69                 | /                 | /                        | /                 |         |       |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      | Copper                | 15.10                | /                 | /                        | /                 |         |       |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      | Lead                  | 11.60                | /                 | /                        | /                 |         |       |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      | Manganese             | 255.00               | /                 | /                        | /                 |         |       |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      | Molybdenum            | 0.36                 | /                 | /                        | /                 |         |       |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      | Nickel                | 8.55                 | /                 | /                        | /                 |         |       |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      | Vanadium              | 48.30                | /                 | /                        | /                 |         |       |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      | Zinc                  | 36.90                | /                 | /                        | /                 |         |       |
| 118-H-4   | Burial Ground | 100-HR-2      | 45.7 x 9.1 x 3.0    | 1953               | This site received solid waste from the ball 3X Project in 1953 and contains thimbles, guides, and radioactive materials removed from the 100-H Reactor.   | Interim Closed | CVP-2010-00003                  | Nov. 4, 2008               | May. 4, 2010             | N/A                        | 1,600 BCM                                       | 4.5                                  |                       | Excavation           |                   | Staging Pile             |                   |         |       |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      |                       | Maximum              | 95% UCL           | Focused Samples Max only | Maximum           | 95% UCL |       |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      |                       | Cesium-137           | 2.81              | 0.671                    | 0.254             | 0.384   | 0.168 |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      |                       | Cobalt-60            | 0.102             | 0.0503                   | /                 | /       | /     |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      |                       | Strontium-90         | 1.26              | 0.587                    | /                 | /       | /     |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      |                       | Arsenic              | 3.9               | 3.43                     | 2.1               | 5.3     | 4.07  |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      |                       | Barium               | 88.5              | 68.7                     | 46.3              | 73.2    | 63    |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      |                       | Beryllium            | 0.306             | 0.224                    | 0.148             | 0.203   | 0.177 |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      |                       | Boron                | 2.38              | 1.65                     | 1.44              | 5.21    | 2.74  |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      |                       | Cadmium              | 0.155 B           | 0.132                    | 0.113             | 0.281   | 0.166 |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      |                       | Chromium Total       | 13.2              | 11.8                     | 9.9               | 11.2    | 9.74  |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      |                       | Cobalt               | 7.08              | 5.93                     | 4.52              | 6.91    | 6.11  |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      |                       | Copper               | 19.7              | 15.1                     | 12.6              | 15.5    | 14.9  |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      |                       | Hexavalent chromium  | 0.09              | /                        | /                 | /       | /     |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      |                       | Lead                 | 13.1              | 10.4                     | 4.33              | 47.6    | 33.2  |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      |                       | Manganese            | 335               | 276                      | 222               | 272     | 258   |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      |                       | Mercury              | 0.0223            | /                        | /                 | /       | /     |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      |                       | Molybdenum           | 0.680 B           | 0.438                    | 0.284             | 0.636 B | 0.5   |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      |                       | Nickel               | 14.8              | 11                       | 8.73              | 10.9    | 9.6   |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      |                       | Vanadium             | 49                | 45.9                     | 39                | 58      | 47.8  |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      |                       | Zinc                 | 43.7              | 39.2                     | 40.3              | 168     | 69.4  |
| 118-H-5   | Burial Ground | 100-HR-2      | 9.1 x 0.6 x 3.0     | 1953-1960          | The site consists of one trench that was covered to grade with soil and marked with cement monuments. This site received a single experimental thimble assembly in 1953 and contaminated soil from the 105-H Pluto Crib in 1960. | Interim Closed | WSRF 2009-021<br>CVP-2009-00009 | Sept. 11, 2008             | Nov. 12, 2008            | Jun. 10, 2009              | 400 BCM   | 3.5                                  |                       | Excavation           |                   | Focused                  |                   |         |       |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      |                       | Max                  | 95% UCL           | Max                      | 95% UCL           |         |       |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      |                       | Carbon-14            | 2.76 J            | 1.65                     | /                 | /       | /     |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      |                       | Strontium-90         | 0.363             | 0.201                    | /                 | /       | /     |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      |                       | Uranium-233/234      | 0.882             | 0                        | 1.12              | /       | /     |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      |                       | Uranium-238          | 0.728             | 0                        | 0.707             | /       | /     |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      |                       | Arsenic              | 5.93              | 4.64                     | 4.49              | /       | /     |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      |                       | Barium               | 77.7              | 62.9                     | 46.1              | /       | /     |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      |                       | Beryllium            | 0.303             | 0.232                    | 0.197             | /       | /     |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      |                       | Boron                | 12                | 3.82                     | 1.29              | /       | /     |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      |                       | Cadmium              | 0.0641 B          | 0.085                    | 0.0467            | /       | /     |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      |                       | Chromium Total       | 12.3              | 10.7                     | 10.5              | /       | /     |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      |                       | Cobalt               | 6.45              | 5.78                     | 5.49              | /       | /     |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      |                       | Copper               | 17.8              | 14                       | 13.7              | /       | /     |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      |                       | Hexavalent Chromium  | 1.07              | 0.35                     | 0.28              | /       | /     |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      |                       | Lead                 | 14                | 11.2                     | 9.24              | /       | /     |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      |                       | Manganese            | 307               | 273                      | 257               | /       | /     |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      |                       | Molybdenum           | 0.517 B           | 0.326                    | 0.277             | /       | /     |
|           |               |               |                     |                    |  |                |                                 |                            |                          |                            |   |                                      |                       | Nickel               | 10.6              | 9.99                     | 10.6              | /       | /     |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code | Site Type | Operable Unit | Site Dimensions (m)                                     | Dates of Operation | Site History  | Class Status   | Decision/Closeout Report  | Remedial Action Start Date                 | Remedial Action End Date                   | Verification Sampling Date   | Contaminated Waste Volume to ERDF (metric tons)            | Maximum Depth of Remedial Action (m) | Maximum Concentration   |  |                   |                   |                   |  |  |
|-----------|-----------|---------------|---|--------------------|---|----------------|---|--|--|------------------------------|--|--------------------------------------|---|--|-------------------|-------------------|-------------------|--|--|
|           |           |               |   |                    |   |                |   |  |  |                              |  |                                      | COC   | 95% UCL  |                   | 95% UCL           |                   |  |  |
|           |           |               |   |                    |   |                |   |  |  |                              |  |                                      |   | (pCi/g, mg/kg)   | (pCi/g, mg/kg)    | (pCi/g, mg/kg)    | (pCi/g, mg/kg)    |  |  |
|           |           |               |   |                    |   |                |   |  |  |                              |  |                                      | Vanadium  | 41.8   | 38.9              | 39.4              |                   |  |  |
|           |           |               |   |                    |   |                |   |  |  |                              |  |                                      | Zinc  | 41   | 36.4              | 33.9              |                   |  |  |
| 118-H-6:1 | Reactor   | 100-HR-1      | 1387 m <sup>2</sup>                                     | 1949-1965          | This site is the 105-H Reactor Block and ISS Project. The safe storage enclosure (SSE) will remain in place to act as temporary storage for the reactor block in accordance with the Removal Action Work Plan for 105-D and 105-H Building Interim Safe Storage Projects and Ancillary Buildings. The original footprint area of the 105-H Reactor Building was approximately 6,934 m <sup>2</sup> . The final ground-level footprint area of the SSE is 1,387 m <sup>2</sup> .   | Accepted       | CVP-2006-00003, pg 6, Table 1. Discusses future maintenance and surveillance. | N/A  | N/A  | N/A                          | N/A  | N/A                                  |   | As of October 2005: Placed into surveillance and maintenance for up to 75 years. |                   |                   |                   |  |  |
| 118-H-6:2 | Reactor   | 100-HR-1      | 5,760 m <sup>2</sup><br>(includes all 118-H-6 subsites) | 1949-1965          | This site is the 105-H Reactor Ancillary Support Areas, below-Grade Structures, and Underlying Soils. These areas did not require sampling and analysis because the structures were removed in their entirety and then disposed at the ERDF. Also per the 105-H Reactor SAP, sampling of the underlying soils was not required because the structures that were removed were not subjected to standing contaminated water and there was no mechanism for residual surface contamination to penetrate into the concrete and underlying soil. | Interim Closed | WSRF 2006-008<br>CVP-2006-00003   | Not Documented                             | 2004                                       | none taken                   | 73,966<br>(includes all sites addressed by CVP-2006-00003) | 6                                    | Site does not require sampling due to removal of structure in its entirety. |  |                   |                   |                   |  |  |
| 118-H-6:3 | Reactor   | 100-HR-1      | 5,760 m <sup>2</sup><br>(includes all 118-H-6 subsites) | 1949-1965          | This site is the 105-H Reactor Fuel Storage basin and underlying soils. Sample design was developed specifically to address potential contamination from the known leakage of the fuel storage basin. The evaluation of the FSB soils and deep zone side-slope soils also refer to the soils underlying waste sites 100-H-11, 100-H-12, and 100-H-14  | Interim Closed | WSRF 2006-009<br>CVP-2006-00003   | Not Documented                             | 2004                                       | Mar. 24-25 &<br>Apr. 6, 2004 | 73,966<br>(includes all sites addressed by CVP-2006-00003) | 6                                    | <b>All Deep Zones</b>   | <b>Upper Zone</b>  | <b>Lower Zone</b> | <b>Upper Zone</b> | <b>Lower Zone</b> |  |  |
|           |           |               |   |                    |   |                |   |  |  |                              |  |                                      | Americium-241   | 0.765  | 0.143 U           | 0.369             | 0.077             |  |  |
|           |           |               |   |                    |   |                |   |  |  |                              |  |                                      | Carbon-14   | 25.4 J   | 3.00 U            | 7.6               | 1.59              |  |  |
|           |           |               |   |                    |   |                |   |  |  |                              |  |                                      | Cesium-137  | 29   | 0.422             | 11.3              | 0.216             |  |  |
|           |           |               |   |                    |   |                |   |  |  |                              |  |                                      | Cobalt-60   | 0.374  | 0.11 U            | 0.199             | 0.037             |  |  |
|           |           |               |   |                    |   |                |   |  |  |                              |  |                                      | Europium-152  | 6.42   | 0.23 U            | 2.76              | 0.088             |  |  |
|           |           |               |   |                    |   |                |   |  |  |                              |  |                                      | Europium-154  | 0.89   | 0.31 U            | 0.35              | 0.12              |  |  |
|           |           |               |   |                    |   |                |   |  |  |                              |  |                                      | Europium-155  | 0.40 U   | 0.19 U            | 0.15              | 0.078             |  |  |
|           |           |               |   |                    |   |                |   |  |  |                              |  |                                      | Tritium (H-3)   | 0.247  | 0.568             | 0.092             | 0.332             |  |  |
|           |           |               |   |                    |   |                |   |  |  |                              |  |                                      | Nickel-63   | 57.5   | 3.62              | 25.9              | 1.79              |  |  |
|           |           |               |   |                    |   |                |   |  |  |                              |  |                                      | Neptunium-237   | 0.048 J  | 0.027 U           | 0.03              | 0.01              |  |  |
|           |           |               |   |                    |   |                |   |  |  |                              |  |                                      | Plutonium-238   | 0.091 U  | 0.036 U           | 0.045             | 0.019             |  |  |
|           |           |               |   |                    |   |                |   |  |  |                              |  |                                      | Plutonium-239/240   | 1.65   | 0.182 U           | 0.9               | 0.073             |  |  |
|           |           |               |   |                    |   |                |   |  |  |                              |  |                                      | Strontium-90  | 12.6   | 0.57              | 5.9               | 0.174             |  |  |
|           |           |               |   |                    |   |                |   |  |  |                              |  |                                      | Uranium-233/234   | 0.665  | 0.431             | 0.54              | 0.398             |  |  |
|           |           |               |   |                    |   |                |   |  |  |                              |  |                                      | Uranium-235   | 0.047  | 0.095 U           | 0.034             | 0.046             |  |  |
|           |           |               |   |                    |   |                |   |  |  |                              |  |                                      | Uranium-238   | 0.665  | 0.55              | 0.542             | 0.46              |  |  |
|           |           |               |   |                    |   |                |   |  |  |                              |  |                                      | Mercury   | 0.02 U   | 0.02 U            | /                 | /                 |  |  |
|           |           |               |   |                    |   |                |   |  |  |                              |  |                                      | Lead  | 34.8   | 2.6 U             | 18.9              | /                 |  |  |
|           |           |               |   |                    |   |                |   |  |  |                              |  |                                      | Hexavalent Chromium   | 0.94   | 0.21 U            | /                 | /                 |  |  |
|           |           |               |   |                    |   |                |   |  |  |                              |  |                                      | Aroclor-1016  | 0.014 UJ   | 0.014 U           | /                 | /                 |  |  |
|           |           |               |   |                    |   |                |   |  |  |                              |  |                                      | Aroclor-1221  | 0.014 UJ   | 0.014 U           | /                 | /                 |  |  |
|           |           |               |   |                    |   |                |   |  |  |                              |  |                                      | Aroclor-1232  | 0.014 UJ   | 0.014 U           | /                 | /                 |  |  |
|           |           |               |   |                    |   |                |   |  |  |                              |  |                                      | Aroclor-1242  | 0.014 UJ   | 0.014 U           | /                 | /                 |  |  |
|           |           |               |   |                    |   |                |   |  |  |                              |  |                                      | Aroclor-1248  | 0.014 UJ   | 0.014 U           | /                 | /                 |  |  |
|           |           |               |   |                    |   |                |   |  |  |                              |  |                                      | Aroclor-1254  | 0.024 J  | 0.014 U           | /                 | /                 |  |  |
|           |           |               |   |                    |   |                |   |  |  |                              |  |                                      | Aroclor-1260  | 0.014 UJ   | 0.014 U           | /                 | /                 |  |  |
| 118-H-6:4 | Reactor   | 100-HR-1      | 5,760 m <sup>2</sup><br>(includes all 118-H-6 subsites) | 1949-1965          | This subsite is the shallow zone side slope soils underlying the 105-H Fuel Storage basin. The side-slope soils in the 105-H FSB shallow zone are at grade level to 4.6 m (15 ft) below grade level.  | Interim Closed | WSRF 2010-037<br>CVP-2010-00005   | Mar. 2004<br>and again on<br>Mar. 17, 2009 | Mar. 2004<br>and again on<br>Jun. 29, 2009 | Jan. 20 & 21,<br>2010        | 2,682 BCM  | Not Documented                       | Excavation  |  | Staging Pile      |                   |                   |  |  |
|           |           |               |   |                    |   |                |   |  |  |                              |  |                                      | Maximum   | 95% UCL  | Maximum           | 95% UCL           |                   |  |  |
|           |           |               |   |                    |   |                |   |  |  |                              |  |                                      | Cesium-137  | 0.338  | 0.103             | 0.561             | 0.159             |  |  |
|           |           |               |   |                    |   |                |   |  |  |                              |  |                                      | Europium-152  | /  | /                 | 0.934             | 0.237             |  |  |
|           |           |               |   |                    |   |                |   |  |  |                              |  |                                      | Neptunium-237   | /  | /                 | 0.077             | 0.039             |  |  |
|           |           |               |   |                    |   |                |   |  |  |                              |  |                                      | Strontium-90  | /  | /                 | 0.479             | 0.122             |  |  |
|           |           |               |   |                    |   |                |   |  |  |                              |  |                                      | Uranium-233/234   | 0.682  | 0.563             | 0.594             | 0.445             |  |  |
|           |           |               |   |                    |   |                |   |  |  |                              |  |                                      | Uranium-238   | 0.754  | 0.532             | 0.677             | 0.513             |  |  |
|           |           |               |   |                    |   |                |   |  |  |                              |  |                                      | Arsenic   | 5.12   | 4.13              | 3.42              | 3.13              |  |  |
|           |           |               |   |                    |   |                |   |  |  |                              |  |                                      | Barium  | 64.9   | 59.8              | 60.3              | 57.3              |  |  |
|           |           |               |   |                    |   |                |   |  |  |                              |  |                                      | Beryllium   | 0.206  | 0.188             | 0.181             | 0.166             |  |  |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code | Site Type | Operable Unit | Site Dimensions<br>(m)                                  | Dates of<br>Operation | Site History  | Class Status   | Decision/<br>Closeout Report | Remedial<br>Action Start<br>Date | Remedial<br>Action End<br>Date | Verification<br>Sampling Date | Contaminated<br>Waste Volume to<br>ERDF (metric<br>tons) | Maximum<br>Depth of<br>Remedial<br>Action (m) | Maximum Concentration  |                      |                   |                      | 95% UCL           |  |  |
|-----------|-----------|---------------|---|-----------------------|---|----------------|------------------------------|----------------------------------|--------------------------------|-------------------------------|--|---|------------------------|----------------------|-------------------|----------------------|-------------------|--|--|
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | COC                    | (pCi/g, mg/kg)       |                   | (pCi/g, mg/kg)       |                   |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   |                        | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Boron                  | 0.727 B              | 0.74              | 1.15 B               | 0.807             |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Cadmium                | 0.118 B              | 0.1               | 0.0981 B             | 0.0862            |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Chromium               | 11                   | 10.1              | 11.4                 | 9.46              |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Cobalt                 | 7.98                 | 6.71              | 6.83                 | 6.24              |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Copper                 | 38.2                 | 18.7              | 13.9                 | 13.3              |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Hexavalent chromium    | /                    | /                 | 0.22                 | /                 |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Lead                   | 14                   | 9.06              | 5.19                 | 4.2               |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Manganese              | 267                  | 251               | 286                  | 264               |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Molybdenum             | 0.586 B              | 0.443             | 0.390 B              | 0.328             |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Nickel                 | 13.9                 | 11.2              | 11.9                 | 10.9              |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Vanadium               | 62.5                 | 48.6              | 55.1                 | 46.1              |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Zinc                   | 44.2                 | 40.3              | 40.5                 | 38.2              |  |  |
| 118-H-6:5 | Reactor   | 100-HR-1      | 5,760 m <sup>2</sup><br>(includes all 118-H-6 subsites) | 1949-1965             | This subsite is the 105-H Decontamination Pads. Three decon pads were created by the Environmental Restoration contractor Decommissioning and Demolition Project. They were deferred to the Field Remediation Closure Project in accordance with the Action Memorandum and the Removal Action Work Plan for 105-D and 105-H Building Interim Safe Storage Projects and Ancillary Buildings. This decision was documented in the Deferral of Three Decontamination Areas to the Field Remediation Project. The decontamination areas were not addressed in CVP-2006-00003. | Interim Closed | CVP 2011-00002 WSRF 2011-060 | Apr-09                           | Mar-11                         | Apr-11                        | 2,508 BCM  | 4   | East Decon Pad         |                      |                   |                      |                   |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Carbon-14              | /                    | /                 | 4.123                | /                 |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Cesium-137             | /                    | /                 | 0.093                | /                 |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Technetium-99          | /                    | /                 | 0.253                | /                 |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Uranium-233/234        | /                    | /                 | 0.683                | /                 |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Uranium-238            | /                    | /                 | 0.653                | /                 |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Antimony               | /                    | /                 | 0.665                | /                 |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Arsenic                | /                    | /                 | 70.757               | /                 |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Barium                 | /                    | /                 | 87.732               | /                 |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Beryllium              | /                    | /                 | 0.327                | /                 |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Boron                  | /                    | /                 | 2.416                | /                 |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Cadmium                | /                    | /                 | 0.084                | /                 |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Chromium (total)       | /                    | /                 | 13.763               | /                 |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Cobalt                 | /                    | /                 | 7.225                | /                 |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Copper                 | /                    | /                 | 13.969               | /                 |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Hexavalent chromium    | 0.080                | /                 | —                    | /                 |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Lead                   | /                    | /                 | 424.680              | /                 |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Manganese              | /                    | /                 | 341.894              | /                 |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Molybdenum             | /                    | /                 | 0.482                | /                 |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Nickel                 | /                    | /                 | 12.231               | /                 |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Vanadium               | /                    | /                 | 49.953               | /                 |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Zinc                   | /                    | /                 | 46.823               | /                 |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | TPH                    | /                    | /                 | 8.253                | /                 |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Acenaphthene           | /                    | /                 | 0.005                | /                 |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Anthracene             | /                    | /                 | 2.636                | /                 |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Benzo(a)anthracene     | /                    | /                 | 0.052                | /                 |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Benzo(a)pyrene         | /                    | /                 | 0.063                | /                 |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Benzo(b)fluoranthene   | /                    | /                 | 0.070                | /                 |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Benzo(ghi)perylene     | /                    | /                 | 0.037                | /                 |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Benzo(k)fluoranthene   | /                    | /                 | 12.467               | /                 |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Chrysene               | /                    | /                 | 0.045                | /                 |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Dibenz(a,h)anthracene  | /                    | /                 | 0.004                | /                 |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Fluoranthene           | /                    | /                 | 0.037                | /                 |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Fluorene               | 0.065                | /                 | /                    | /                 |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Indeno(1,2,3-cd)pyrene | /                    | /                 | 0.020                | /                 |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Naphthalene            | 0.016                | /                 | /                    | /                 |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Phenanthrene           | /                    | /                 | 63.281               | /                 |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Pylene                 | /                    | /                 | 0.362                | /                 |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Aroclor-1254           | 10.200               | /                 | /                    | /                 |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Aroclor-1260           | 5.380                | /                 | /                    | /                 |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Center Decon Pad       |                      |                   |                      |                   |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Carbon-14              | /                    | /                 | 1.242                | /                 |  |  |
|           |           |               |   |                       |   |                |                              |                                  |                                |                               |  |   | Cesium-137             | /                    | /                 | 0.078                | /                 |  |  |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code | Site Type | Operable Unit | Site Dimensions<br>(m) | Dates of<br>Operation | Site History | Class Status | Decision/<br>Closeout Report | Remedial<br>Action Start<br>Date | Remedial<br>Action End<br>Date | Verification<br>Sampling Date | Contaminated<br>Waste Volume to<br>ERDF (metric<br>tons) | Maximum<br>Depth of<br>Remedial<br>Action (m) | Maximum Concentration  |                      |                   |                      | 95% UCL           |  |  |
|-----------|-----------|---------------|------------------------|-----------------------|--------------|--------------|------------------------------|----------------------------------|--------------------------------|-------------------------------|--|---|------------------------|----------------------|-------------------|----------------------|-------------------|--|--|
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | (pCi/g, mg/kg)         |                      |                   |                      | (pCi/g, mg/kg)    |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | COC                    | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Technetium-99          | /                    | /                 | 0.191                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Tritium                | /                    | /                 | 4.411                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Uranium-233/234        | /                    | /                 | 0.574                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Uranium-238            | /                    | /                 | 0.574                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Antimony               | /                    | /                 | 0.456                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Arsenic                | /                    | /                 | 7.819                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Barium                 | /                    | /                 | 99.245               | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Beryllium              | /                    | /                 | 0.240                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Boron                  | /                    | /                 | 6.211                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Cadmium                | /                    | /                 | 0.092                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Chromium (total)       | /                    | /                 | 11.716               | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Cobalt                 | /                    | /                 | 6.647                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Copper                 | /                    | /                 | 15.498               | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Hexavalent chromium    | 0.060                | /                 | /                    | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Lead                   | /                    | /                 | 21.177               | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Manganese              | /                    | /                 | 297.228              | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Mercury                | 0.207                | /                 | /                    | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Molybdenum             | /                    | /                 | 0.456                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Nickel                 | /                    | /                 | 10.899               | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Vanadium               | /                    | /                 | 53.525               | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Zinc                   | /                    | /                 | 45.161               | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | TPH                    | /                    | /                 | 23381.910            | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Acenaphthene           | /                    | /                 | 0.020                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Anthracene             | 0.014                | /                 | /                    | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Benzo(a)anthracene     | /                    | /                 | 193.853              | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Benzo(a)pyrene         | /                    | /                 | 0.012                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Benzo(b)fluoranthene   | /                    | /                 | 175.327              | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Benzo(ghi)perylene     | /                    | /                 | 0.091                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Benzo(k)fluoranthene   | /                    | /                 | 26.234               | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Chrysene               | /                    | /                 | 0.065                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Dibenz(a,h)anthracene  | 0.019                | /                 | /                    | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Fluoranthene           | /                    | /                 | 0.697                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Fluorene               | 0.007                | /                 | /                    | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Indeno(1,2,3-cd)pyrene | /                    | /                 | 0.012                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Naphthalene            | 0.044                | /                 | /                    | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Phenanthrene           | /                    | /                 | 275.600              | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Pyrene                 | /                    | /                 | 0.817                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Xylenes (total)        | 0.001                | /                 | /                    | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | West Decon Pad         |                      |                   |                      |                   |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Carbon-14              | /                    | /                 | 0.842                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Cesium-137             | /                    | /                 | 0.078                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Tritium                | /                    | /                 | 5.923                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Uranium-233/234        | /                    | /                 | 0.714                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Uranium-238            | /                    | /                 | 0.739                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Antimony               | /                    | /                 | 0.501                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Arsenic                | /                    | /                 | 4.571                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Barium                 | /                    | /                 | 87.732               | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Beryllium              | /                    | /                 | 0.217                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Boron                  | /                    | /                 | 2.085                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Cadmium                | 0.097                | /                 | /                    | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Chromium (total)       | /                    | /                 | 10.844               | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Cobalt                 | /                    | /                 | 6.227                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Copper                 | /                    | /                 | 13.847               | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Lead                   | /                    | /                 | 10.871               | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Manganese              | /                    | /                 | 283.284              | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Molybdenum             | /                    | /                 | 0.370                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Nickel                 | /                    | /                 | 12.510               | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Vanadium               | /                    | /                 | 46.552               | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Zinc                   | /                    | /                 | 42.659               | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | TPH                    | /                    | /                 | 12.460               | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Acenaphthene           | 0.003                | /                 | /                    | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Acenaphthylene         | 0.004                | /                 | /                    | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Anthracene             | 0.002                | /                 | /                    | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Benzo(a)anthracene     | /                    | /                 | 0.012                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Benzo(a)pyrene         | /                    | /                 | 6.049                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Benzo(b)fluoranthene   | /                    | /                 | 0.005                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Benzo(ghi)perylene     | 0.008                | /                 | /                    | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Benzo(k)fluoranthene   | 0.003                | /                 | /                    | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Chrysene               | /                    | /                 | 0.003                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Dibenz(a,h)anthracene  | 0.001                | /                 | /                    | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Fluoranthene           | /                    | /                 | 0.016                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Indeno(1,2,3-cd)pyrene | /                    | /                 | 0.005                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Naphthalene            | 0.053                | /                 | /                    | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Phenanthrene           | /                    | /                 | 0.004                | /                 |  |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Pyrene                 | /                    | /                 | 0.005                | /                 |  |  |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code | Site Type | Operable Unit | Site Dimensions<br>(m)                                      | Dates of<br>Operation | Site History   | Class Status   | Decision/<br>Closeout Report    | Remedial<br>Action Start<br>Date | Remedial<br>Action End<br>Date | Verification<br>Sampling Date | Contaminated<br>Waste Volume to<br>ERDF (metric<br>tons)          | Maximum<br>Depth of<br>Remedial<br>Action (m) | Maximum Concentration  |                      |                   |                      | 95% UCL           |   |
|-----------|-----------|---------------|---|-----------------------|--|----------------|---------------------------------|----------------------------------|--------------------------------|-------------------------------|---|---|------------------------|----------------------|-------------------|----------------------|-------------------|---|
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | COC                    | (pCi/g, mg/kg)       |                   | (pCi/g, mg/kg)       |                   |   |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   |                        | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |   |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | 2-Hexanone             | 0.005                | /                 | /                    | /                 | / |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Methylene chloride     | 0.004                | /                 | /                    | /                 | / |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Focus Samples          |                      |                   |                      |                   |   |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Carbon-14              | 1.200                | /                 | /                    | /                 | / |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Tritium                | 4.080                | /                 | /                    | /                 | / |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Uranium-233/234        | 0.927                | /                 | /                    | /                 | / |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Uranium-238            | 0.690                | /                 | /                    | /                 | / |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Antimony               | 0.592                | /                 | /                    | /                 | / |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Arsenic                | 27.000               | /                 | /                    | /                 | / |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Barium                 | 65.600               | /                 | /                    | /                 | / |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Beryllium              | 0.251                | /                 | /                    | /                 | / |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Boron                  | 1.710                | /                 | /                    | /                 | / |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Cadmium                | 0.103                | /                 | /                    | /                 | / |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Chromium (total)       | 13.000               | /                 | /                    | /                 | / |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Cobalt                 | 6.700                | /                 | /                    | /                 | / |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Copper                 | 34.500               | /                 | /                    | /                 | / |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Lead                   | 114.000              | /                 | /                    | /                 | / |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Manganese              | 311.000              | /                 | /                    | /                 | / |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Molybdenum             | 0.264                | /                 | /                    | /                 | / |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Nickel                 | 12.600               | /                 | /                    | /                 | / |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Vanadium               | 49.400               | /                 | /                    | /                 | / |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Zinc                   | 46.400               | /                 | /                    | /                 | / |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | TPH - motor oil        | 24.000               | /                 | /                    | /                 | / |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Acenaphthene           | 0.008                | /                 | /                    | /                 | / |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Acenaphthylene         | 0.001                | /                 | /                    | /                 | / |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Anthracene             | 4.890                | /                 | /                    | /                 | / |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Benzo(a)anthracene     | 0.053                | /                 | /                    | /                 | / |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Benzo(a)pyrene         | 0.035                | /                 | /                    | /                 | / |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Benzo(b)fluoranthene   | 0.056                | /                 | /                    | /                 | / |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Benzo(ghi)perylene     | 0.051                | /                 | /                    | /                 | / |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Benzo(k)fluoranthene   | 0.027                | /                 | /                    | /                 | / |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Chrysene               | 0.047                | /                 | /                    | /                 | / |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Dibenz(a,h)anthracene  | 0.007                | /                 | /                    | /                 | / |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Fluoranthene           | 0.171                | /                 | /                    | /                 | / |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Fluorene               | 0.004                | /                 | /                    | /                 | / |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Indeno(1,2,3-cd)pyrene | 0.031                | /                 | /                    | /                 | / |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Naphthalene            | 0.010                | /                 | /                    | /                 | / |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Phenanthrene           | 0.050                | /                 | /                    | /                 | / |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Pyrene                 | 0.149                | /                 | /                    | /                 | / |
| 118-H-6:6 | Reactor   | 100-HR-1      | 5,760 m <sup>2</sup><br>(includes all 118-H-<br>6 subsites) | 1949-1965             | This subsite is the 105-H Deep Zone<br>Side Slope Soils. | Interim Closed | WSRF 2006-022<br>CVP-2006-00003 | Not Documented                   | 2004                           | Mar. 29, 2004                 | 73,966<br>(includes all sites<br>addressed by CVP-<br>2006-00003) | 6   | Americium-241          | /                    | 0.273             | /                    | 0.257             |   |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Carbon-14              | /                    | 4.32 U            | /                    | 4.43 U            |   |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Cesium-137             | /                    | 5.01              | /                    | 5.36              |   |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Cobalt-60              | /                    | 0.192             | /                    | 0.19              |   |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Europium-152           | /                    | 1.26              | /                    | 1.26              |   |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Europium-154           | /                    | 0.34 U            | /                    | 0.15 U            |   |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Europium-155           | /                    | 0.25 U            | /                    | 0.13              |   |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Tritium (H-3)          | /                    | 0 U               | /                    | -0.02 U           |   |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Nickel-63              | /                    | 14.8              | /                    | 16                |   |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Neptunium-237          | /                    | 0.052             | /                    | 0.035             |   |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Plutonium-238          | /                    | 0.036 U           | /                    | 0.041             |   |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Plutonium-239/240      | /                    | 0.969             | /                    | 0.999             |   |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Strontium-90           | /                    | 5.64              | /                    | 5.56              |   |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Uranium-233/234        | /                    | 0.697             | /                    | 0.457             |   |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Uranium-235            | /                    | 0.116 U           | /                    | 0.105             |   |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Uranium-238            | /                    | 0.768             | /                    | 0.675             |   |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Mercury                | /                    | 0.02 U            | /                    | /                 |   |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Lead                   | /                    | 22.4              | /                    | 20.1              |   |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Hexavalent Chromium    | /                    | 1.5               | /                    | /                 |   |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Aroclor-1016           | /                    | 0.014 U           | /                    | /                 |   |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Aroclor-1221           | /                    | 0.014 U           | /                    | /                 |   |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Aroclor-1232           | /                    | 0.014 U           | /                    | /                 |   |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Aroclor-1242           | /                    | 0.014 U           | /                    | /                 |   |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Aroclor-1248           | /                    | 0.014 U           | /                    | /                 |   |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Aroclor-1254           | /                    | 0.014 U           | /                    | /                 |   |
|           |           |               |   |                       |  |                |                                 |                                  |                                |                               |   |   | Aroclor-1260           | /                    | 0.014 U           | /                    | /                 |   |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code           | Site Type    | Operable Unit | Site Dimensions (m)                               | Dates of Operation | Site History   | Class Status   | Decision/Closeout Report | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration  |                      |                   |                      | 95% UCL           |     |
|---------------------|--------------|---------------|---|--------------------|--|----------------|--------------------------|----------------------------|--------------------------|----------------------------|---|--------------------------------------|------------------------|----------------------|-------------------|----------------------|-------------------|-----|
|                     |              |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | COC                    | (pCi/g, mg/kg)       |                   | (pCi/g, mg/kg)       |                   |     |
|                     |              |               |   |                    |  |                |                          |                            |                          |                            |   |                                      |                        | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |     |
| 126-H-1             | coal ash Pit | 100-HR-2      | 76.2 x 76.2 x 3.7                                 | 1948-1965          | The site is a large ash disposal pit and ash pile. coal ash from the 184-H Powerhouse was mixed with raw river water and sluiced in slurry to the ash pit. Unknown amounts of coal ash were sluiced to the pit with raw river water. ash from other Hanford Site pits has been analyzed using the EP Toxicity Test in accordance with WAC 173-203 and no hazardous | Rejected       | WSRF 98-08               | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A                    | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 126-H-2             | Dumping Area | 100-HR-1      | 261.5 x 40.8; 265 x 43                            | 1975               | concrete basins used to store reactor coolant water. Eastern half contains D&D rubble (west half still intact).  | Accepted       | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A                    | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 128-H-1             | Burn Pit     | 100-HR-2      | 30.48 x 30.48 x 3.048; Also reported as 172 x 163 | 1949-1965          | Site is a large depression used for burning nonradioactive combustible materials, paint, office waste, solvents. Site also contains surface debris such as wood, metal, chunks of concrete, and so forth. CVP data is for east and west excavations  | Interim Closed | WSRF 2010-062            | Jun-09                     | May-11                   | Jun-11                     | 16,310 BCM                                      | 7                                    | Arsenic                | /                    | /                 | 5.18                 | /                 |     |
|                     |              |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Barium                 | /                    | /                 | 97.14                | /                 |     |
|                     |              |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Beryllium              | /                    | /                 | 0.31                 | /                 |     |
|                     |              |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Boron                  | /                    | /                 | 4.63                 | /                 |     |
|                     |              |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Cadmium                | /                    | /                 | 0.16                 | /                 |     |
|                     |              |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Chromium (total)       | /                    | /                 | 14.41                | /                 |     |
|                     |              |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Cobalt                 | /                    | /                 | 6.79                 | /                 |     |
|                     |              |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Copper                 | /                    | /                 | 13.78                | /                 |     |
|                     |              |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Hexavalent chromium    | /                    | /                 | 0.15                 | /                 |     |
|                     |              |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Lead                   | /                    | /                 | 27.58                | /                 |     |
|                     |              |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Manganese              | /                    | /                 | 321.22               | /                 |     |
|                     |              |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Mercury                | /                    | /                 | 0.25                 | /                 |     |
|                     |              |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Molybdenum             | /                    | /                 | 0.42                 | /                 |     |
|                     |              |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Nickel                 | /                    | /                 | 11.64                | /                 |     |
|                     |              |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Vanadium               | /                    | /                 | 51.54                | /                 |     |
|                     |              |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Zinc                   | /                    | /                 | 40.73                | /                 |     |
|                     |              |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | TPH - diesel range     | 28.80                | /                 | /                    | /                 |     |
|                     |              |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | TPH - motor oil        | /                    | /                 | 22.99                | /                 |     |
|                     |              |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Acenaphthene           | /                    | /                 | 0.01                 | /                 |     |
|                     |              |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Acenaphthylene         | 0.07                 | /                 | /                    | /                 |     |
|                     |              |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Anthracene             | 0.00                 | /                 | /                    | /                 |     |
|                     |              |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Benzo(a)anthracene     | /                    | /                 | 0.01                 | /                 |     |
|                     |              |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Benzo(a)pyrene         | /                    | /                 | 0.01                 | /                 |     |
|                     |              |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Benzo(b)fluoranthene   | /                    | /                 | 0.01                 | /                 |     |
|                     |              |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Benzo(ghi)perylene     | /                    | /                 | 0.01                 | /                 |     |
|                     |              |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Benzo(k)fluoranthene   | /                    | /                 | 0.00                 | /                 |     |
|                     |              |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Chrysene               | 0.02                 | /                 | /                    | /                 |     |
|                     |              |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Dibenz(a,h)anthracene  | 0.00                 | /                 | /                    | /                 |     |
|                     |              |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Fluoranthene           | /                    | /                 | 0.03                 | /                 |     |
|                     |              |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Fluorene               | 0.00                 | /                 | /                    | /                 |     |
|                     |              |               |   |                    |  |                |                          |                            |                          |                            |   |                                      | Indeno(1,2,3-cd)pyrene | /                    | /                 | 0.05                 | /                 |     |
| Naphthalene         | 0.01         | /             | /   | /                  |  |                |                          |                            |                          |                            |   |                                      |                        |                      |                   |                      |                   |     |
| Phenanthrene        | /            | /             | 0.01  | /                  |  |                |                          |                            |                          |                            |   |                                      |                        |                      |                   |                      |                   |     |
| Pyrene              | /            | /             | 0.02  | /                  |  |                |                          |                            |                          |                            |   |                                      |                        |                      |                   |                      |                   |     |
| 4,4'-DDE            | 0.00         | /             | /   | /                  |  |                |                          |                            |                          |                            |   |                                      |                        |                      |                   |                      |                   |     |
| Aroclor-1254        | 0.01         | /             | /   | /                  |  |                |                          |                            |                          |                            |   |                                      |                        |                      |                   |                      |                   |     |
| Aroclor-1260        | 0.02         | /             | /   | /                  |  |                |                          |                            |                          |                            |   |                                      |                        |                      |                   |                      |                   |     |
| Arsenic             | /            | /             | 3.96  | /                  |  |                |                          |                            |                          |                            |   |                                      |                        |                      |                   |                      |                   |     |
| Barium              | /            | /             | 67.12   | /                  |  |                |                          |                            |                          |                            |   |                                      |                        |                      |                   |                      |                   |     |
| Beryllium           | 0.17         | /             | /   | /                  |  |                |                          |                            |                          |                            |   |                                      |                        |                      |                   |                      |                   |     |
| Boron               | /            | /             | 1.32  | /                  |  |                |                          |                            |                          |                            |   |                                      |                        |                      |                   |                      |                   |     |
| Cadmium             | /            | /             | 0.08  | /                  |  |                |                          |                            |                          |                            |   |                                      |                        |                      |                   |                      |                   |     |
| Chromium (total)    | /            | /             | 12.73   | /                  |  |                |                          |                            |                          |                            |   |                                      |                        |                      |                   |                      |                   |     |
| Cobalt              | /            | /             | 6.53  | /                  |  |                |                          |                            |                          |                            |   |                                      |                        |                      |                   |                      |                   |     |
| Copper              | /            | /             | 16.68   | /                  |  |                |                          |                            |                          |                            |   |                                      |                        |                      |                   |                      |                   |     |
| Hexavalent chromium | 0.92         | /             | /   | /                  |  |                |                          |                            |                          |                            |   |                                      |                        |                      |                   |                      |                   |     |
| Lead                | /            | /             | 6.86  | /                  |  |                |                          |                            |                          |                            |   |                                      |                        |                      |                   |                      |                   |     |
| Manganese           | /            | /             | 271.37  | /                  |  |                |                          |                            |                          |                            |   |                                      |                        |                      |                   |                      |                   |     |
| Mercury             | /            | /             | 0.01  | /                  |  |                |                          |                            |                          |                            |   |                                      |                        |                      |                   |                      |                   |     |
| Molybdenum          | 0.49         | /             | /   | /                  |  |                |                          |                            |                          |                            |   |                                      |                        |                      |                   |                      |                   |     |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code | Site Type     | Operable Unit | Site Dimensions (m)   | Dates of Operation | Site History  | Class Status   | Decision/Closeout Report     | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date                  | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration  |                      |                   |                      | 95% UCL           |  |
|-----------|---------------|---------------|---|--------------------|---|----------------|------------------------------|----------------------------|--------------------------|---|---|--------------------------------------|--|----------------------|-------------------|----------------------|-------------------|--|
|           |               |               |   |                    |   |                |                              |                            |                          |   |   |                                      | (pCi/g, mg/kg)   |                      |                   |                      | (pCi/g, mg/kg)    |  |
|           |               |               |   |                    |   |                |                              |                            |                          |   |   |                                      | COC  | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |  |
|           |               |               |   |                    |   |                |                              |                            |                          |   |   |                                      | Nickel   | /                    | /                 | 11.55                | /                 |  |
|           |               |               |   |                    |   |                |                              |                            |                          |   |   |                                      | Vanadium   | /                    | /                 | 40.80                | /                 |  |
|           |               |               |   |                    |   |                |                              |                            |                          |   |   |                                      | Zinc   | /                    | /                 | 36.21                | /                 |  |
|           |               |               |   |                    |   |                |                              |                            |                          |   |   |                                      | TPH - diesel range   | 160.00               | /                 | /                    | /                 |  |
|           |               |               |   |                    |   |                |                              |                            |                          |   |   |                                      | TPH - motor oil  | /                    | /                 | 85.42                | /                 |  |
|           |               |               |   |                    |   |                |                              |                            |                          |   |   |                                      | Benzo(a)anthracene   | 0.01                 | /                 | /                    | /                 |  |
|           |               |               |   |                    |   |                |                              |                            |                          |   |   |                                      | Benzo(b)fluoranthene   | 0.01                 | /                 | /                    | /                 |  |
|           |               |               |   |                    |   |                |                              |                            |                          |   |   |                                      | Chrysene   | 0.02                 | /                 | /                    | /                 |  |
|           |               |               |   |                    |   |                |                              |                            |                          |   |   |                                      | Fluoranthene   | 0.02                 | /                 | /                    | /                 |  |
|           |               |               |   |                    |   |                |                              |                            |                          |   |   |                                      | Pyrene   | 0.03                 | /                 | /                    | /                 |  |
|           |               |               |   |                    |   |                |                              |                            |                          |   |   |                                      | Bis(2-ethylhexyl)phthalate   | /                    | /                 | 0.07                 | /                 |  |
| 128-H-2   | Burn Pit      | 100-HR-2      | 36.6 x 24.4; Also reported as 86 x 47                           | 1948 OR 1965?      | The site is in a depression cut into the hillside that appears to be a former borrow area. The site received combustible materials such as vegetation, office waste, paint waste, and chemical solvents. Evidence of burning is not readily visible, but the following surface debris was observed in 2000: wood, metal cables, cans, lighting fixtures, concrete, and a  | No Action      | WSRF/RSVP-2007-008           | N/A                        | N/A                      | confirmatory sampling done on Oct. 27, 2008 | N/A   | N/A                                  | Hexavalent Chromium and Selenium exceeds cleanup/screening level based on WAC 173-340 Human Health 2007. |                      |                   |                      |                   |  |
| 128-H-3   | Burn Pit      | 100-HR-2      | 24.5 x 4  | N/K                | Site is a pit resembling a trench with little to no evidence of burning other than charred rocks.   | No Action      | WSRF/RSVP-2007-009           | N/A                        | N/A                      | confirmatory sampling done on Oct. 27, 2008 | N/A   | N/A                                  | as exceeds cleanup/screening level in GROUNDWATER and River based on WAC 173-340 Human Health 2007.      |                      |                   |                      |                   |  |
| 132-H-1   | Burial Ground | 100-HR-1      | 61.0 x 9.1 x 5.5  | 1945-1965          | Site contains concrete rubble from demolition of the 105-H (116-H) Reactor Stack. The stack was used to exhaust confinement air from the work areas of the 105-H Reactor and was demolished in 1983. The stack and its foundation were demolished with explosives and buried in a trench.   | Interim Closed | WSRF/RSVP-2006-053           | 16-Sep-83                  | 1983                     | 1983  | Left in place                                   | 5.49                                 | Carbon-14  | 249                  | /                 | /                    | /                 |  |
|           |               |               |   |                    |   |                |                              |                            |                          |   |   |                                      | Cesium-137   | 69.4                 | /                 | /                    | /                 |  |
|           |               |               |   |                    |   |                |                              |                            |                          |   |   |                                      | Cobalt-60  | 4.07                 | /                 | /                    | /                 |  |
|           |               |               |   |                    |   |                |                              |                            |                          |   |   |                                      | Europium-152   | 5.77                 | /                 | /                    | /                 |  |
|           |               |               |   |                    |   |                |                              |                            |                          |   |   |                                      | Tritium (H-3)  | 22.4                 | /                 | /                    | /                 |  |
|           |               |               |   |                    |   |                |                              |                            |                          |   |   |                                      | Plutonium-239/240  | 27.2                 | /                 | /                    | /                 |  |
|           |               |               |   |                    |   |                |                              |                            |                          |   |   |                                      | Strontium-90   | 9.49                 | /                 | /                    | /                 |  |
| 132-H-2   | Burial Ground | 100-HR-2      | 16.9 x 7.0  | 1961-1965          | This site was a concrete building that housed reactor exhaust filters. The building was built over the excavated 116-H-4 Pluto Crib. It was demolished in 1984 and left in place.   | Interim Closed | WSRF/RSVP-2006-049           | 1983                       | Oct-84                   | 1984  | Left in place                                   | 9.6                                  | Carbon-14  | 7                    | /                 | /                    | /                 |  |
|           |               |               |   |                    |   |                |                              |                            |                          |   |   |                                      | Cesium-137   | 104                  | /                 | /                    | /                 |  |
|           |               |               |   |                    |   |                |                              |                            |                          |   |   |                                      | Cobalt-60  | 56                   | /                 | /                    | /                 |  |
|           |               |               |   |                    |   |                |                              |                            |                          |   |   |                                      | Europium-152   | 63                   | /                 | /                    | /                 |  |
|           |               |               |   |                    |   |                |                              |                            |                          |   |   |                                      | Europium-154   | 19                   | /                 | /                    | /                 |  |
|           |               |               |   |                    |   |                |                              |                            |                          |   |   |                                      | Tritium (H-3)  | 41                   | /                 | /                    | /                 |  |
|           |               |               |   |                    |   |                |                              |                            |                          |   |   |                                      | Plutonium-239/240  | 40                   | /                 | /                    | /                 |  |
|           |               |               |   |                    |   |                |                              |                            |                          |   |   |                                      | Strontium-90   | 53                   | /                 | /                    | /                 |  |
| 132-H-3   | Pump Station  | 100-HR-1      | 11.0 x 10.4 x 9.6   | 1949-1965          | This site received water from reactor building drains and irradiated fuel storage drains containing trace amounts of low-level radionuclides and decontamination chemicals, primarily Turco (a commercial chemical compound with a proprietary composition). Site collected low-level contaminated wastewater from 105-H sumps and drains and pumped it to either the 1608-H Disposal Trench or effluent pipelines. Site was a concrete building that was D&D'd in place in 1987. | Accepted       | Not Documented               | N/A                        | N/A                      | N/A   | N/A   | N/A                                  | N/A  | N/A                  | N/A               | N/A                  | N/A               |  |
| 1607-H1   | Septic Tank   | 100-HR-2      | 4.6 x 1.7 x 4.4 (Septic Tank); 17.1 x 15.2 (Tile Field)         | 1948               | Site is a concrete tank with a 50person capacity and tile field that received sanitary sewage from the 151-H and 105-H Reactors.  | Interim Closed | Not Documented               | N/A                        | N/A                      | N/A   | N/A   | N/A                                  | N/A  | N/A                  | N/A               | N/A                  | N/A               |  |
| 1607-H2   | Septic Tank   | 100-HR-1      | 11.8 x 4.1 x 4.8 (Septic Tank), 93.3 x 30.8 x 0.9 (Drain Field) | 1949-1965          | Site was a concrete tank with a 500-person capacity, drain field, and associated piping that received sanitary sewage from the 182-H, 183-H, 190-H,   | Interim Closed | WSRF 2000-118 CVP-2000-00024 | Oct. 21, 1999              | Nov. 11, 1999            | May. 5, 2000                                | 12,207  | 5.6 <sup>k</sup>                     | Uranium-233/234  | 1.38                 | /                 | 0.886                | /                 |  |
|           |               |               |   |                    |   |                |                              |                            |                          |   |   |                                      | Uranium-238  | 1.05                 | /                 | 0.73                 | /                 |  |
|           |               |               |   |                    |   |                |                              |                            |                          |   |   |                                      | Cesium-137   | 0.11                 | /                 | 0.0591               | /                 |  |
|           |               |               |   |                    |   |                |                              |                            |                          |   |   |                                      | Hexavalent Chromium  | 0.68                 | /                 | 0.68                 | /                 |  |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code | Site Type    | Operable Unit | Site Dimensions (m)  | Dates of Operation | Site History   | Class Status   | Decision/Closeout Report        | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | Maximum Concentration    |                      |                   |                      | 95% UCL           |     |
|-----------|--------------|---------------|--|--------------------|--|----------------|---------------------------------|----------------------------|--------------------------|----------------------------|---|--------------------------------------|--------------------------|----------------------|-------------------|----------------------|-------------------|-----|
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | (pCi/g, mg/kg)           |                      |                   |                      | (pCi/g, mg/kg)    |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | COC                      | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |     |
|           |              |               |  |                    | and other offices and maintenance buildings.   |                |                                 |                            |                          |                            |   |                                      | Chromium Total           | 204                  | /                 | 83.2                 | /                 |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | Mercury                  | 3.5                  | /                 | 1.34                 | /                 |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | Lead                     | 48.5                 | /                 | 36                   | /                 |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | Aroclor-1254             | 0.16                 | /                 | 0.16                 | /                 |     |
| 1607-H3   | Septic Tank  | 100-HR-1      | 5.8 x 2.4 x 3.7 (Septic Tank); 30 x 15 (Tile Field)          | 1948-1968          | Site is a concrete tank with a 100 person capacity and tile field and received sanitary sewage from 1701H badge house, 1709-H Fire Station, and 1720-H Patrol Office. The 1701-H badge house included a darkroom for film badge processing. Liquids from the darkroom were disposed to the 1607-H Septic System. | Accepted       | Not Documented                  | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A                      | N/A                  | N/A               | N/A                  | N/A               | N/A |
| 1607-H4   | Septic Tank  | 100-HR-1      | 1.6 x 1.0 x 2.9 (Septic Tank); 7.3 x 2.4 x 0.9 (Drain Field) | 1948-1965          | Site was a concrete tank with a six person capacity, drain field, and associated piping that received sanitary sewage from 181-H Pumphouse Building.   | Interim Closed | WSRF 2000-129<br>CVP-2000-00025 | Nov. 5, 1999               | Jul. 24, 2000            | Feb. 16 - Jul. 31, 2000    | 2,078   | 3.6                                  | Uranium-233/234          | 0.705 J              | /                 | 0.484                | /                 |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | Uranium-238              | 0.764 J              | /                 | 0.505                | /                 |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | Cesium-137               | 0.137                | /                 | 0.114                | /                 |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | Chromium Total           | 12                   | /                 | /                    | /                 |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | Hexavalent Chromium      | 0.44 U               | /                 | 0.44                 | /                 |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | Lead                     | 44                   | /                 | 36                   | /                 |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | Mercury                  | 0.11 U               | /                 | /                    | /                 |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | Fluoranthene             | 1.3                  | /                 | 0.96                 | /                 |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | Pyrene                   | 1.2                  | /                 | 0.9                  | /                 |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | benzo(a)anthracene       | 0.33 U               | /                 | 0.059                | /                 |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | benzo(a)pyrene           | 0.33 U               | /                 | 0.065                | /                 |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | benzo(b)fluoranthene     | 0.33 U               | /                 | 0.031                | /                 |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | benzo(k)fluoranthene     | 0.33 U               | /                 | 0.031                | /                 |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | Chrysene                 | 0.33 U               | /                 | 0.11                 | /                 |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | Dibenz[a,h]anthracene    | 0.33 U               | /                 | 0.022                | /                 |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | Indeno(1, 2, 3-cd)pyrene | 0.33 U               | /                 | 0.039                | /                 |     |
| 600-151   | Dumping Area | 100-HR-2      | 45,000 m <sup>2</sup>  | Not Documented     | The site is the debris remaining from a military installation that was located northwest of the 100 H Area.  | Interim Closed | RSVP /WSRF 2001-053             | Apr-10                     | Apr-10                   | Apr-11                     | 1,524 BCM                                       | 0.31                                 | Excavatin Area A         |                      |                   |                      |                   |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | Arsenic                  | —                    | N/A               | 20.2                 | N/A               |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | Barium                   | —                    |                   | 102                  |                   |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | Beryllium                | —                    |                   | 0.18                 |                   |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | Boron                    | —                    |                   | 5                    |                   |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | Cadmium                  | —                    |                   | 0.28                 |                   |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | Chromium (total)         | —                    |                   | 13.1                 |                   |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | Cobalt                   | —                    |                   | 7.9                  |                   |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | Copper                   | —                    |                   | 22                   |                   |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | Hexavalent chromium      | 0.306                |                   | —                    |                   |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | Lead                     | —                    |                   | 133                  |                   |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | Manganese                | —                    |                   | 352                  |                   |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | Mercury                  | —                    |                   | 0.014                |                   |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | Molybdenum               | 0.47                 |                   | —                    |                   |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | Nickel                   | —                    |                   | 12.9                 |                   |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | Selenium                 | 0.94                 |                   | —                    |                   |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | Vanadium                 | —                    |                   | 41                   |                   |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | Zinc                     | —                    |                   | 64.5                 |                   |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | Acetone                  | 0.0068               |                   | —                    |                   |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | Methylene chloride       | 0.0061               |                   | —                    |                   |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | 4,4'-DDE                 | 0.0012               |                   | —                    |                   |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | 4,4'-DDT                 | 0.00089              |                   | —                    |                   |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | TPH - diesel range       | —                    |                   | 11.084               |                   |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | TPH - diesel range EXT   | —                    |                   | 20.733               |                   |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | Anthracene               | 0.0074               |                   | —                    |                   |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | Benzo(a)anthracene       | —                    |                   | 0.0972               |                   |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | Benzo(a)pyrene           | —                    |                   | 0.0998               |                   |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | Benzo(b)fluoranthene     | —                    |                   | 0.0708               |                   |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | Benzo(ghi)perylene       | —                    |                   | 0.0386               |                   |     |
|           |              |               |  |                    |  |                |                                 |                            |                          |                            |   |                                      | Benzo(k)fluoranthene     | —                    |                   | 0.0372               |                   |     |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code | Site Type | Operable Unit | Site Dimensions<br>(m) | Dates of<br>Operation | Site History | Class Status | Decision/<br>Closeout Report | Remedial<br>Action Start<br>Date | Remedial<br>Action End<br>Date | Verification<br>Sampling Date | Contaminated<br>Waste Volume to<br>ERDF (metric<br>tons) | Maximum<br>Depth of<br>Remedial<br>Action (m) | Maximum Concentration  |                      |                   |                      | 95% UCL           |                      |                   |  |
|-----------|-----------|---------------|------------------------|-----------------------|--------------|--------------|------------------------------|----------------------------------|--------------------------------|-------------------------------|--|---|------------------------|----------------------|-------------------|----------------------|-------------------|----------------------|-------------------|--|
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | (pCi/g, mg/kg)         |                      | (pCi/g, mg/kg)    |                      | (pCi/g, mg/kg)    |                      | (pCi/g, mg/kg)    |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | COC                    | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Chrysene               | —                    | —                 | 0.0921               | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Dibenz(a,h)anthracene  | 0.023                | —                 | —                    | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Fluoranthene           | —                    | —                 | 0.128                | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Fluorene               | 0.0067               | —                 | —                    | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Indeno(1,2,3-cd)pyrene | —                    | —                 | 0.0361               | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Phenanthrene           | —                    | —                 | 0.063                | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Pyrene                 | —                    | —                 | 0.179                | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Excavation Area B      |                      |                   |                      |                   |                      |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Arsenic                | —                    | —                 | 83.4                 | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Barium                 | —                    | —                 | 90                   | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Beryllium              | —                    | —                 | 0.13                 | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Boron                  | —                    | —                 | 2.2                  | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Cadmium                | —                    | —                 | 0.73                 | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Chromium (total)       | —                    | —                 | 12.2                 | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Cobalt                 | —                    | —                 | 7.4                  | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Copper                 | —                    | —                 | 14.3                 | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Lead                   | —                    | —                 | 679                  | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Manganese              | —                    | —                 | 361                  | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Mercury                | —                    | —                 | 0.013                | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Molybdenum             | 0.33                 | —                 | —                    | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Nickel                 | —                    | —                 | 11.5                 | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Vanadium               | —                    | —                 | 38.1                 | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Zinc                   | —                    | —                 | 46.4                 | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | 2-Butanone             | 0.009                | —                 | —                    | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Acetone                | 0.03                 | —                 | —                    | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Methylene chloride     | 0.011                | —                 | —                    | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | 4,4'-DDE               | 0.00047              | —                 | —                    | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | TPH - diesel range     | —                    | —                 | 2.12                 | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | TPH - diesel range EXT | —                    | —                 | 7.854                | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Benzo(a)anthracene     | —                    | —                 | 0.018                | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Benzo(a)pyrene         | 0.045                | —                 | —                    | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Benzo(b)fluoranthene   | —                    | —                 | 0.019                | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Benzo(ghi)perylene     | 0.035                | —                 | —                    | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Benzo(k)fluoranthene   | 0.021                | —                 | —                    | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Chrysene               | —                    | —                 | 0.024                | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Fluoranthene           | 0.093                | —                 | —                    | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Phenanthrene           | 0.046                | —                 | —                    | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Pyrene                 | 0.1                  | —                 | —                    | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Excavation Area C      |                      |                   |                      |                   |                      |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Arsenic                | —                    | —                 | 67.4                 | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Barium                 | —                    | —                 | 147                  | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Beryllium              | —                    | —                 | 0.14                 | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Boron                  | —                    | —                 | 2.8                  | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Cadmium                | —                    | —                 | 0.56                 | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Chromium (total)       | —                    | —                 | 13.1                 | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Cobalt                 | —                    | —                 | 7.7                  | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Copper                 | —                    | —                 | 16.1                 | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Lead                   | —                    | —                 | 712                  | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Manganese              | —                    | —                 | 322                  | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Mercury                | —                    | —                 | 0.023                | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Molybdenum             | 0.37                 | —                 | —                    | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Nickel                 | —                    | —                 | 12.4                 | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Vanadium               | —                    | —                 | 38.5                 | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Zinc                   | —                    | —                 | 64.3                 | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Methylene chloride     | 0.0034               | —                 | —                    | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | 4,4'-DDE               | 0.0034               | —                 | —                    | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | 4,4'-DDT               | 0.00091              | —                 | —                    | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | TPH - diesel range     | —                    | —                 | 9.123                | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | TPH - diesel range EXT | —                    | —                 | 22.089               | —                 | —                    |                   |  |
|           |           |               |                        |                       |              |              |                              |                                  |                                |                               |  |   | Anthracene             | 0.0067               | —                 | —                    | —                 | —                    |                   |  |



Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code   | Site Type         | Operable Unit | Site Dimensions (m) | Dates of Operation | Site History   | Class Status | Decision/Closeout Report | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | COC | Maximum Concentration |                   | 95% UCL              |                   |
|---|-------------------|---------------|---------------------|--------------------|--|--------------|--------------------------|----------------------------|--------------------------|----------------------------|---|--------------------------------------|-----|-----------------------|-------------------|----------------------|-------------------|
|   |                   |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      |     | (pCi/g, mg/kg)        |                   | (pCi/g, mg/kg)       |                   |
|   |                   |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      |     | Shallow <sup>a</sup>  | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |
| 600-380   | Dumping Area      | 100-HR-2      | Not Documented      | Not Documented     | This small site is the location of a corroded compressed gas type cylinder.  | Accepted     | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A | N/A                   | N/A               | N/A                  | N/A               |
| 600-381   | Depression Pit    | 100-HR-2      | Not Documented      | Not Documented     | This location consists of two wooden air vents covered with screening protruding from the ground. There is a below grade structure of unknown size.        | Accepted     | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A | N/A                   | N/A               | N/A                  | N/A               |
| 600-382:1   | Unplanned Release | 100-HR-2      | Not Documented      | Not Documented     | This subsite consists of two oil filters surrounded by soil devoid of vegetation.  | Accepted     | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A | N/A                   | N/A               | N/A                  | N/A               |
| 600-382:2   | Unplanned Release | 100-HR-2      | Not Documented      | Not Documented     | This subsite consists of three oil filters and a small area of soil devoid of vegetation.  | Accepted     | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A | N/A                   | N/A               | N/A                  | N/A               |
| 600-382:3   | Unplanned Release | 100-HR-2      | Not Documented      | Not Documented     | This subsite consists of an oil filter that is surrounded by soil devoid of vegetation.  | Accepted     | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A | N/A                   | N/A               | N/A                  | N/A               |
| 600-382:4   | Unplanned Release | 100-HR-2      | 3 m <sup>2</sup>    | Not Documented     | This subsite is a small 3 m <sup>2</sup> area that is devoid of vegetation.  | Accepted     | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A | N/A                   | N/A               | N/A                  | N/A               |
| 600-382:5   | Unplanned Release | 100-HR-2      | Not Documented      | Not Documented     | This subsite consists of three oil filters within a small area devoid of vegetation.   | Accepted     | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A | N/A                   | N/A               | N/A                  | N/A               |
| 600-383:1   | Dumping Area      | 100-HR-2      | Not Documented      | Not Documented     | This subsites consists of a 4 m diameter area of batteries.  | Accepted     | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A | N/A                   | N/A               | N/A                  | N/A               |
| 600-383:2   | Dumping Area      | 100-HR-2      | Not Documented      | Not Documented     | This subsites consists of a small area of dry cell batteries.  | Accepted     | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A | N/A                   | N/A               | N/A                  | N/A               |
| 600-383:3   | Dumping Area      | 100-HR-2      | Not Documented      | Not Documented     | This subsites consists of a small area of twenty-two dry cell batteries.   | Accepted     | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A | N/A                   | N/A               | N/A                  | N/A               |
| 600-383:4   | Dumping Area      | 100-HR-2      | Not Documented      | Not Documented     | This subsites consists of a small area of dry cell batteries.  | Accepted     | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A | N/A                   | N/A               | N/A                  | N/A               |
| 600-383:5   | Dumping Area      | 100-HR-2      | Not Documented      | Not Documented     | This subsites consists of a two small area of dry cell batteries. The area is devoid of vegetation.  | Accepted     | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A | N/A                   | N/A               | N/A                  | N/A               |
| 600-383:6   | Dumping Area      | 100-HR-2      | 1 m                 | Not Documented     | This subsites consists of a small area of dry cell batteries.  | Accepted     | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A | N/A                   | N/A               | N/A                  | N/A               |
| 600-383:7   | Dumping Area      | 100-HR-2      | Not Documented      | Not Documented     | This subsites consists of a small area of wet cell car batteries.  | Accepted     | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A | N/A                   | N/A               | N/A                  | N/A               |
| 600-383:8   | Dumping Area      | 100-HR-2      | Not Documented      | Not Documented     | This subsites consists of a small area of dry cell batteries.  | Accepted     | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A | N/A                   | N/A               | N/A                  | N/A               |
| 600-383:9   | Dumping Area      | 100-HR-2      | 5 m diameter        | Not Documented     | This subsites consists of a small area of dry cell batteries.  | Accepted     | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A | N/A                   | N/A               | N/A                  | N/A               |
| 600-383:10  | Dumping Area      | 100-HR-2      | 2 m diameter        | Not Documented     | This subsites consists of a small area of dry cell batteries.  | Accepted     | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A | N/A                   | N/A               | N/A                  | N/A               |
| 600-384:1   | Unplanned Release | 100-HR-2      | 4 m diameter        | Not Documented     | This subsites consists of a small area of yellow and white powder.   | Accepted     | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A | N/A                   | N/A               | N/A                  | N/A               |
| 600-384:2   | Unplanned Release | 100-HR-2      | 15 m diameter       | Not Documented     | This subsites consists of a small area of yellow and white powder.   | Accepted     | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A | N/A                   | N/A               | N/A                  | N/A               |
| 600-384:3   | Unplanned Release | 100-HR-2      | Not Documented      | Not Documented     | This subsites consists of two small areas of discolored soil   | Accepted     | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A | N/A                   | N/A               | N/A                  | N/A               |
| 600-384:4   | Unplanned Release | 100-HR-2      | 4 m diameter        | Not Documented     | This subsites consists of a small area of discolored soil  | Accepted     | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A | N/A                   | N/A               | N/A                  | N/A               |
| 600-384:5   | Unplanned Release | 100-HR-2      | 1.5 m diameter      | Not Documented     | This subsites consists of a small area of discolored soil  | Accepted     | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A | N/A                   | N/A               | N/A                  | N/A               |
| 600-385   | Dumping Area      | 100-HR-2      | 5334 m <sup>2</sup> | Not Documented     | The site is an area of scattered transite, concrete and metal debris. The site is located near a pre-Hanford farmstead and was used for military purposes. | Accepted     | Not Documented           | N/A                        | N/A                      | N/A                        | N/A   | N/A                                  | N/A | N/A                   | N/A               | N/A                  | N/A               |
|   |                   |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      |     |                       |                   |                      |                   |
|   |                   |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      |     |                       |                   |                      |                   |
| <b>Foot Notes:</b>  |                   |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      |     |                       |                   |                      |                   |
| / = no data collected   |                   |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      |     |                       |                   |                      |                   |
| BG = background   |                   |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      |     |                       |                   |                      |                   |
| CERCLA = comprehensive Environmental Response, compensation and Liability Act of 1980 |                   |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      |     |                       |                   |                      |                   |
| COC = contaminant of concern  |                   |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      |     |                       |                   |                      |                   |
| COPC = contaminant of potential concern   |                   |               |                     |                    |  |              |                          |                            |                          |                            |   |                                      |     |                       |                   |                      |                   |

Table E1. Waste Site Description and History with Associated Interim Action Closeout Data

| Site Code  | Site Type | Operable Unit | Site Dimensions (m) | Dates of Operation | Site History | Class Status | Decision/Closeout Report | Remedial Action Start Date | Remedial Action End Date | Verification Sampling Date | Contaminated Waste Volume to ERDF (metric tons) | Maximum Depth of Remedial Action (m) | COC | Maximum Concentration |                   | 95% UCL              |                   |
|--|-----------|---------------|---------------------|--------------------|--------------|--------------|--------------------------|----------------------------|--------------------------|----------------------------|---|--------------------------------------|-----|-----------------------|-------------------|----------------------|-------------------|
|  |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |     | (pCi/g, mg/kg)        |                   | (pCi/g, mg/kg)       |                   |
|  |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |     | Shallow <sup>a</sup>  | Deep <sup>b</sup> | Shallow <sup>a</sup> | Deep <sup>b</sup> |
| D&D = decontamination and decommissioning<br>Ecology = Washington State Department of Ecology<br>ERDF = Environmental Restoration Disposal Facility<br>FH = Fluor Hanford<br>FSB = Fuel Storage basin<br>GPERS = Global Positioning Environmental Radiological Surveyor<br>N/A = information not available<br>BCM = bank cubic meters  |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |     |                       |                   |                      |                   |
| <b>Qualifier Codes:</b><br>B = INORGANICS and WETCHEM - the analyte was detected at a value less than the contract required detection limit (RDL), but greater than upper limit of the analysis range.<br>C= INORGANICS/WETCHEM - The analyte was detected in both the sample and the associated QC blank, and the sample concentration was <=5X the blank concentration. ORGANICS (PESTICIDE only) - The identification of a pesticide confirmed by gas chromatograph/mass spectrometer (GC/MS).<br>D = diluted<br>J = ORGANICS - associated value is an estimated quantity<br>L = interference<br>M = INORGANICS - duplicate precision not met<br>N = ALL (except GC/MS based analysis) - Spike and/or spike duplicate sample recovery is outside control limits. ORGANICS (GC/MS only) - Presumptive evidence of compound based on mass spectral library search.<br>P = Aroclor target analyte with greater than 2% difference between columns.<br>U = Undetected<br>X = The result-specific translation of this qualifier code is provided in the hardcopy data report and/or case narrative. Additional result-specific translation information may also be found in the RESULT_COMMENT field for this record.  |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |     |                       |                   |                      |                   |
| <b>Notes:</b><br>a. Shallow zone: soil 0 to 4.6 m (0 to 15 ft) in depth.<br>b. Deep zone: soil greater than 4.6 m (15 ft) in depth.<br>c. Unadjusted Statistical Values.<br>d. COC typically represented the 95% UCL.<br>e. To determine compliance with the RAGs, the residual radioactivity in the 105-D FSB floor concrete was modeled with the RESRAD dose assessment model in the post-drilling rural-residential exposure scenario.<br>f. There were no results reported for the COC Strontium-90 in the deep zone soil. Strontium-90 and Nickel-63 have similar partition coefficients (Strontium-90 Kd = 25, Nickel-63 Kd = 30) and Nickel-63 was measured in both the deep zone concrete and soil. Therefore, Strontium-90 in the soil was estimated by applying the equation [Strontium-90(soil) = Ni -63 (soil)* Strontium-90 (concrete)/Nickel-63 (concrete)].<br>g. Aroclor-1260 is the only identified coca for this site.<br>h. COPC for this site but was not detected above Washington State background (WAC 173-340).<br>i. Total strontium results are used as a conservative representation of Strontium-90.<br>j. because a more detailed analysis of lead was required to demonstrate groundwater and river lead, deep zone was divided into two levels. |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |     |                       |                   |                      |                   |
|  |           |               |                     |                    |              |              |                          |                            |                          |                            |   |                                      |     |                       |                   |                      |                   |