2.2 Compliance Status

D. G. Black

This section summarizes the activities conducted to ensure that the Hanford Site is in compliance with federal environmental protection statutes and related Washington State and local environmental protection regulations. It also discusses the status of Hanford's compliance with these requirements. Environmental permits required under the environmental protection regulations are discussed under the applicable statute.

Hanford Federal Facility Agreement and Consent Order

Originally signed in May 1989, the Tri-Party Agreement is an agreement among EPA, the Washington State Department of Ecology, and DOE to achieve environmental compliance for the Hanford Site with the Comprehensive Environmental Response, Compensation, and Liability Act remedial action provisions and with the Resource Conservation and Recovery Act treatment, storage, and disposal unit regulations and corrective action provisions. At the end of 1995, a total of 460 enforceable milestones and 215 unenforceable target dates (including those from 1989 through 1995) had been completed on or ahead of schedule. The following are some of the more significant accomplishments for 1995, with the associated Tri-Party Agreement milestone numbers:

- Initiated sheet pile wall construction to abate underground water flow to the Columbia River at the 100-N Area (M-16-12B-T3)
- Completed 1100 Area remediation field activities (M-16-05A-T2)
- Completed implementation of radiation skyshine abatement program at the 100-N Area (M-16-12A)
- Completed construction/installation and initiated operations of N-Springs pump-and-treat facility in the 100-N Area (M-16-12D)
- Completed radiation dose reduction activities at the Columbia River shoreline by decontaminating of the 1304-N emergency dump tank in the 100-N Area (M-16-12F)
- Completed 1100 Area site revegetation (M-16-05A-T3)
- Began remediation activities on three liquid waste disposal sites located near 100 Area B and C Reactor Areas
- Completed the removal of the 107-K retention basins at the 100-K Area
- Began construction of the Environmental Restoration Disposal Facility outside of the 200 Area
- Removed approximately 68,000 kg (150,000 lb) of carbon tetrachloride from the soil using a soil vapor extraction system in the 200-West Area
- Treated over 64 million L (17 million gal) of ground water in the 100 and 200 Areas
- Completed emergency pumping (interim stabilization) of single-shell tank 241-T-111 (M-41-16A-T1)
- Prepared an improved single-shell tank emergency pumping capability for each non-interim stabilized tank (M-41-02)
- Commenced operation of a vapor treatment system in single-shell tank 241-C-103 (M-40-07)
- Started interim stabilization of single-shell tanks 241-BX-106, 241-BY-103, and 241-BY-106 (M-41-12)
- Upgraded temperature monitoring capabilities in ferrocyanide-containing tanks (M-40-12)
- Completed safety alternative test in high-heat tank 241-C-106 (M-40-05)

- Performed vapor characterization for all organic and ferrocyanide watch list tanks (M-40-03 and M-40-08)

- Started construction of the cross-site transfer line system replacement for transfer of tank waste between the 200 Areas (M-43-07A)

- Achieved compliance with interim status facility standards for mixed waste stored in the high-level vault at the 324 Building, 300 Area (M-89-03)

- Completed deactivation of the Plutonium-Uranium Extraction Plant R-Cell (M-80-01)

- Completed all Uranium-TriOxide Plant transition activities and initiated surveillance and maintenance phase (M-80-00-T02)

- Completed removal and disposal of nearly 44,000 fuel spacers from the 118-N-1/1301-N silo in the 100-N Area (M-16-01E-T01)

- Completed liquid effluent treatment facility upgrades for all Phase I effluent streams (M-17-00A)

- Initiated full-scale hot operations of the 200 Area Treated Effluent Disposal Facility, with permitted disposal of effluent to a state-approved land disposal structure (M-17-08)

- Implemented "best available technology/all known and reasonable treatment" for the 242-A Evaporator process condensate (M-17-29) and at the generating facilities that will discharge to the 200 Area Treated Effluent Disposal Facility (M-17-08B)

- Ceased liquid discharges to hazardous waste land disposal units (M-17-10)

- Initiated full-scale hot operations for the 242-A Evaporator/Plutonium-Uranium Extraction Plant Process Condensate Treatment Facility with permitted discharge of treated effluent to the soil column (M-17-14).

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act requires that specific procedures be implemented to assess inactive waste sites for presence of hazardous substances. The process is divided into three tiers of activity: 1) preliminary assessments, 2) remedial investigation/feasibility studies, and 3) remedial actions. The EPA has established procedures to conduct the three-tiered process.

Preliminary assessments conducted for the Hanford Site revealed that there are approximately 2,100 known individual waste sites where hazardous substances may have been disposed. These 2,100 sites have been grouped into 71 operable units, which have been further grouped into four aggregate areas using identifiable geographic boundaries. The four aggregate areas have been placed on the EPA's National Priorities List, which requires a schedule and actions for the remediation of each area.

DOE is currently conducting remedial investigation/feasibility studies at some operable units on the Hanford Site. The operable units currently being studied were selected as a result of Tri-Party Agreement negotiations. The Tri-Party Agreement provides the framework for meeting Comprehensive Environmental Response, Compensation, and Liability Act cleanup requirements. All milestones related to the Comprehensive Environmental Response, Compensation, and Liability Act process established for 1995 were achieved, and the Hanford Site was in compliance with the Act requirements.

100 Area Remedial Action Project

In 1995, real cleanup of 100 Area waste sites began. Feasibility studies that evaluated high-priority waste sites in the 100-B/C, 100-DR, and 100-HR Areas were completed in early 1995, and proposed plans describing the remedial alternatives for these sites were issued for public review and comment in June 1995. At mid-year, DOE began cleanup of three liquid waste disposal sites in the 100-B/C Area to collect additional information to support the remedy selection. Nearly 3,100 m^3 (4,100 yd^3) of contaminated soil were excavated and stored for ultimate disposal in the Environmental Restoration Disposal Facility. Using the public's input and information from this early cleanup, DOE, EPA, and the Washington State Department of Ecology signed Hanford's first large interim Record of Decision in September 1995. The Record of Decision selected the cleanup alternatives for 37 liquid waste disposal sites in the 100 Areas. Following remedial design, full-scale remediation of the waste sites is scheduled to start in the summer of 1996.

Progress was also made in 1995 on the final closeout of four contaminated areas that were previously addressed as expedited response actions. The four areas were the Riverland Rail Yard, the North Slope (also known as the Wahluke Slope), the Sodium Dichromate Barrel Landfill, and the White Bluffs Pickling Acid Cribs. Investigation and cleanup activities were conducted at these areas from 1990 through 1994. A proposed plan describing these investigations and activities, with a determination that no further action would be required, was issued for public review and comment in June 1995. A final record of decision was signed by DOE, EPA, and the Washington State Department of Ecology in February 1996.

During 1995 the 190-D complex, consisting of six buildings and a high tower, was demolished using a combination of conventional demolition techniques and explosives. The demolition of the 183-C building was started, and pre-demolition activities on the 190-C building were initiated. Final demolition of the 183-H Solar Basins in the 100-H Area was initiated. Scabbling of the basin walls was completed and demolition of the concrete basin walls was initiated. The riverlines at the 105-B and 105-D reactor buildings were characterized using robotics to determine levels of both radiological and hazardous materials. Preliminary engineering was initiated for the 105-C Reactor Safe Storage Project.

100-N Area

The 100-N Area projects have been established to coordinate the cleanup actions within the 100-N Area. The project includes deactivating and decommissioning the N Reactor and supporting facilities and remediating the 100-N Area.

Deactivation of N Reactor facilities began in May 1995, when the appropriate National Environmental Policy Act determination of a finding of no significant impact was issued. Radioactive materials were removed from the N Reactor fuel storage basin including 65 m^3 (85 yd^3) of waste and 662 fuel canisters. Design, procurement, and installation of a water filtration system in the fuel storage basin was completed, resulting in improved water clarity.

The removal of the nearly 44,000 radioactive fuel spacers from the 100-N Area underground storage silos was completed in August 1995, one month ahead of schedule. Thorough planning and innovative designs of the spacer shipping containers, transport shipping frames, and a lifting beam resulted in a cost-effective operation that also reduced worker exposure during handling of spacer shipping containers.

Deactivation of 32 facilities took place ahead of schedule and under budget. With deactivation work completed at these buildings, surveillance and maintenance costs are greatly reduced.

The September 1994 action memorandum for the 100-N Area N Springs required the implementation of a pump-and-treat system combined with a removable steel barrier wall. The construction of the 100-N Pump and Treat facility to remove strontium-90 contaminated ground water was completed in July 1995. Pump and treat operations began in September 1995.

In March 1995, the Washington State Department of Ecology and EPA agreed that a sheet pile construction test conducted in December 1994 showed that the installation of the jointed sheet pile wall could not be achieved in the manner specified. The Washington State Department of Ecology and EPA directed the DOE Richland Operations Office to proceed with the installation of the Expedited Response Action pump-and-treat system and to 1) continue assessing accurately the flux of strontium to the river, 2) further characterize geologic and hydrologic conditions, and 3) assess design and installation alternatives related to modified barriers and expected performance.

Carbon Tetrachloride Vapor Extraction

Vapor extraction from the contaminated vadose zone beneath the 200-West Area (specifically, the 200-ZP-2 Operable Unit) began in February 1992 and continued through 1995. This Expedited Response Action uses three vapor extraction systems to draw soil vapor laden with carbon tetrachloride from the unsaturated soil column. The carbon tetrachloride is collected above ground into granulated activated-charcoal, which is then shipped offsite for treatment. As of February 1996, about 68,225 kg (150,410 lb) of carbon tetrachloride has been removed from the soil. The systems are anticipated to operate for several more years. However, decreasing carbon tetrachloride concentrations may drive the response action to closure if agreements can be reached between DOE and the regulators.

Horn Rapids Landfill, Horseshoe and Nike Site Landfills

In the fall of 1995, DOE and the Hanford Natural Resource Trustees worked cooperatively in planning and conducting the restoration action necessary for these remediated sites. The Horn Rapids Landfill was replanted for the

purposes of stabilization. Non-native bunchgrasses were planted using two planting techniques (rangeland drilling and land imprinting with mycorrhizal fungi) in an attempt to determine which method would be more effective in the rocky, sandy soils of the Site. The Horseshoe and Nike Landfills on the Fitzner/Eberhardt Arid Lands Ecology Reserve were replanted using local native transplanted bunchgrasses in an effort to restore the sites to pre-existing native grassland.

1100 Area Remediation

Remedial actions for the 1100 Area National Priority List Site were completed in September 1995 by the U.S. Army Corps of Engineers. A total of 1,340 m^3 (1,750 yd^3) of PCB-contaminated soil was removed from two sites. The PCB-contaminated soil was shipped to a disposal facility in Arlington, Oregon. An additional 70 m^3 (92 yd^3) of soil contaminated with bis(2-ethylhexyl)phthalate was removed from a third site and was sent to an incinerator near Salt Lake City, Utah. The Horn Rapids Landfill, located west of the 300 Area, was capped with fill material to prevent exposure to asbestos dust. Five new monitoring wells were installed downgradient of the landfill to establish a point of compliance and to provide additional sampling points to track trichloroethylene plume migration. Additional soils removed from other 1100 Area operable units consisted of 1,220 m^3 (1,600 yd^3) of petroleum-contaminated soil, 54 m^3 (70 yd^3) of soil contaminated with lead, and 62 m^3 (80 yd^3) of soil contaminated with petroleum hydrocarbons, lead, and chromium. These soils were also shipped to Arlington, Oregon for disposal.

Asbestos Removal

In 1995, the Environmental Restoration/Decontamination and Decommissioning project completed abatement of 3,300 linear m (11,000 linear ft) of asbestos-containing pipe insulation and 2,000 m^2 (22,000 ft^2) of asbestos-containing duct insulation. Approximately 90% of the asbestos wastes generated from the asbestos projects were shipped and stock-piled in an above-ground storage area at the 400 Area Asbestos Conversion Compound.

Wastes generated from 1995 asbestos projects exceeded 760 m^3 (990 yd^3) and will be used as feed stock during the Asbestos Conversion Technology Demonstration Project. This technology converts typical asbestos wastes into non-hazardous recyclable material by way of a systematic shredding, soaking, and thermal conversion process that subjects the treated material to temperatures exceeding 1000°C (1800°F). The entire process is contained in two transportable tractor trailers for easy relocation. The benefits of conversion are two-fold: waste volumes are reduced from 70 to 80%, and the end-product is suitable for low-level waste void space filler, a material currently purchased on the open market.

Treatability Studies

Several treatability studies are identified in the Tri-Party Agreement. The purpose of the studies is to test cleanup technologies in the field to determine their effectiveness and provide better information on field conditions and probable costs. Three types of tests have been implemented, consisting of pump-and-treat systems, soil washing, and an excavation treatability study. More information on these studies is provided below.

Carbon Tetrachloride Ground-Water Plume

The carbon tetrachloride ground-water plume in the 200-West Area covers approximately 9 km^2 (3.5 mi^2). It resulted from historical discharges from processes at the Plutonium Finishing Plant. In early 1994, construction of a pilot-scale pump-and-treat system was completed, and a treatability test was initiated. The pump-and-treat system tested the removal of carbon tetrachloride, chloroform, and trichloroethylene from ground water using liquid phase activated carbon. Treated water is discharged into an injection well, back into the aquifer. Approximately 19 million L (5 million gal) of water have been treated through 1995. Removal efficiency of carbon tetrachloride is always better than 95% and may exceed 99%. A proposed plan outlining a preferred alternative of scaling up the existing system as an interim remedial measure was issued to the public in October 1994. Regulator and public comments were addressed and an interim record of decision was issued in June 1995.

Uranium/Technetium Ground-Water Plume

Another ground-water plume in the 200-West Area contains uranium and technetium-99. The contamination is the result of historical 200-West Area U Plant uranium recovery operations. A pump-and-treat system was designed to test removal of these contaminants using ion exchange. The system also removes carbon tetrachloride using liquid phase granulated activated carbon. In 1995, the ground-water extraction system was expanded to

190 L/min (50 gal/min). An engineering evaluation cost analysis has been prepared and a proposed plan leading to an interim record of decision has been through public review. An interim record of decision is expected in 1996. During 1995, a total of 36.7 million L (9.7 million gal) of ground water were treated.

200-East Area Ground-Water Plumes

The radiological contaminants in two 200-East Area ground-water plumes include cesium-137, cobalt-60, plutonium, strontium-90, and technetium-99. They are the result of historical reprocessing operations in the 200-East Area at the B Plant. Two pump-and-treat test systems addressing these plumes through treatability testing were discontinued in May 1995. Further decisions on remediation of these plumes have been deferred until after the data are evaluated. In 1995, approximately 5 million L (1.3 million gal) of water were treated. A Resource Conservation and Recovery Act Facility Investigation/Corrective Measures Study addressing contaminants (tritium, iodine-129, and nitrate) associated with the Plutonium-Uranium Extraction Plant is being prepared.

Chromium Ground-Water Plume

Chromium-contaminated ground water that resulted from historical reactor operations underlies portions of the 100-D and 100-H Areas near the Columbia River. Chromium concentrations are at levels of potential concern to the Columbia River ecosystem. This concern has prompted an interim remedial measure to address the movement of chromium into the river. In 1994, a ground-water extraction system was installed at the 100-D Area to test chromium removal using ion exchange technology. Through 1995, the system has treated 40.8 million L (10.8 million gal) of ground water and has removed 39.4 kg (86.9 lb) of chromium.

Environmental Restoration Disposal Facility

In June 1995, construction began on the Environmental Restoration Disposal Facility near the 200 Areas. Approximately 1.5 million m^3 (2.0 million yd^3) of material were excavated to construct two adjoining disposal cells. Work was started on the double liner, leachate collection system, and support structures. Together, the disposal cells are approximately 21 m (69 ft) deep, 120 m by 330 m (390 ft by 1080 ft) in surface area, and can be expanded as needed. The disposal system will be operated to support Hanford remediation efforts. Construction is scheduled to be completed by July 1996.

Emergency Planning and Community Right-To-Know Act and Pollution Prevention Act, Section 6607

Community Right-To-Know Activities

The Emergency Planning and Community Right-To-Know Act of 1986 requires states to establish a process for developing chemical emergency preparedness programs and to distribute information on hazardous chemicals present at facilities within communities. The Act has four major components: emergency planning (Sections 301-303); emergency release notification (Section 304); inventory reporting (Sections 311-312); and toxic chemical release inventory reporting.

Section 301 of the Act requires the appointment of a state emergency response commission to coordinate the emergency planning process. The state was divided into local planning districts, and local emergency planning committees were established for each district. Section 302 requires facilities that use, produce, or store Extremely Hazardous Substances[(a)] in quantities equal to or greater than the listed threshold planning quantity to notify the state emergency response commission and local emergency planning committee. Covered facilities must also identify an emergency response coordinator to participate in local emergency planning committee activities, including the development of the local emergency response plans required under Section 303.

The Hanford Site has been identified as a covered facility to the Washington State Emergency Response Commission and to three local emergency planning committees; Benton County Department of Emergency Management, Franklin County Office of Emergency Management, and Grant County Department of Emergency Management. During calendar year 1995, information regarding the

(a) See 40 CFR 355, Appendix A or B.

storage of hazardous chemicals and associated hazards was provided to these organizations. In addition, Hanford Site representatives participated in local emergency planning committee meetings held by the Benton County Department of Emergency Management.

Under Section 304, a facility must immediately notify the state emergency response commission and local emergency planning committee if there is a release of a listed hazardous substance that is not federally permitted, that exceeds the reportable quantity established for the substance, and that results in exposure to persons outside the facility boundaries. The substances subject to these requirements consist of Extremely Hazardous Substances and Hazardous Substances subject to the notification requirements of the Comprehensive Environmental Response, Compensation, and Liability Act.[b]

During calendar year 1995, the Hanford Site had no releases that fell under the requirements of the Emergency Planning and Community Right-To-Know Act, Section 304.

Sections 311 and 312 require facilities that store hazardous chemicals in amounts above minimum threshold levels to report information regarding these chemicals to the state emergency response commission, local emergency planning committee, and local fire department. Both sections cover chemicals that are considered physical or health hazards by the Occupational Safety and Health Act Hazard Communication Standard.[c] The minimum threshold level is 4,545 kg (10,000 lb) for a hazardous chemical, or 227 kg (500 lb) or the listed Threshold Planning Quantity, whichever is lower, if the chemical is an Extremely Hazardous Substance. Section 311 calls for the submittal of an Material Safety Data Sheet for each hazardous chemical present above minimum threshold levels, or a listing of such chemicals associated hazard information. The listing must be updated within 3 months of any change to the list, including new hazard information or the addition of new chemicals. Section 312 requires the annual submittal of more detailed quantity and storage information regarding the same list of chemicals. This information is submitted in the form of a Tier Two report.

The Hanford Site provides appropriate hazardous chemical inventory information to the Washington State Emergency Response Commission, three local emergency planning committees, and to both the Richland and Hanford fire departments. Updated Material Safety Data Sheet listings were issued in April, July, and October 1995, and January 1996, covering changes occurring in calendar year 1995. The 1995 *Hanford Tier Two Emergency and Hazardous Chemical Inventory* (DOE 1996c) was issued in March 1996.

Under Section 313, facilities must report total annual releases of certain listed toxic chemicals.[d] The Pollution Prevention Act of 1990 adds additional information requirements to the submittal, and Executive Order 12856, Federal Compliance with Right-To-Know Laws and Pollution Prevention Requirements, extends the requirements to all federal facilities, regardless of the types of activities conducted there. A Toxic Chemical Release Inventory report consists of release, waste transfer, and source reduction information for each toxic chemical that is manufactured, processed, or otherwise used in amounts over specific activity threshold levels.

The Hanford Site was not required to submit a Toxic Chemical Release Inventory report in July 1995, covering reporting year 1994. Evaluation of complete toxic chemical usage information resulted in the determination that there were no toxic chemicals used in excess of applicable activity threshold levels. The list of toxic chemicals subject to reporting under Section 313 was expanded significantly, effective for reporting year 1995. The list was nearly doubled to include 590 chemicals and 28 chemical categories. Toxic chemical usage information for calendar year 1995 will not be collected and evaluated until the end of April 1996. Until then, it will not be known exactly how the expanded list will affect Hanford Site Toxic Chemical Release Inventory reporting.

Table 2.2.1 provides an overview of 1995 Emergency Planning and Community Right-To-Know Act reporting.

Pollution Prevention Program

As part of Section 313 of the Emergency Planning and Community Right-To-Know Act toxic chemical release inventory reporting program, a pollution prevention program has been established that requires an annual evaluation of the use and release of 17 specific priority chemicals. This program seeks to reduce releases of pollutants through avoidance or reduction in the generation of pollutants at their source.

(b) See 40 CFR 302.6(a).
(c) See 29 CFR 1910.1200.
(d) See 40 CFR 372.65.

Table 2.2.1. Emergency Planning and Community Right-to-Know Act Compliance Table, 1995[a]

Emergency Planning and Community Right-to-Know Act Sections	Yes	No	Not Required
302-303: Planning Notification	X		
304: EHS[b] Release Notification			X
311-312: MSDS[c]/Chemical Inventory	X		
313: TRI[d] Reporting	X		

(a) See text in Section 2.2 for further information. In this table, "Yes" indicates that notifications were provided and/or reports were issued under the applicable provisions. "No" indicates that notifications or reports should have been provided, but were not. "Not Required" indicates that no actions were required under the applicable provisions, either because triggering thresholds were not exceeded or no releases occurred.
(b) Environment, Health, and Safety.
(c) Material Safety Data Sheet.
(d) Toxic Chemical Release Inventory.

The 17 priority chemicals targeted for reduction in this program are a subset of the chemicals listed in Section 313 of this Act. The thresholds listed in the Act are used to determine participation. DOE is committed to reducing the releases of these 17 priority chemicals by 50% (compared to the 1988 baseline) by 1995. Each DOE site annually evaluates its use and release of these 17 priority chemicals. The information is provided to DOE Headquarters, where it is aggregated for an annual progress report provided to the EPA.

Hanford did not exceed the reporting threshold for the use of any of the 17 priority chemicals during 1995.

The Hanford Site Pollution Prevention Program was designed to meet the requirements of DOE Orders 5400.1, and 5820.2A, the DOE *Waste Minimization/Pollution Prevention Cross Cut Plan* (DOE 1994d) and EPA program guidance, and State of Washington Pollution Prevention Planning requirements. The major elements of the program were 1) establishment of management support, 2) identification and implementation of pollution prevention opportunities through an assessment process, 3) setting and measuring the progress of waste reduction goals, 4) development of waste generation baseline and tracking systems, 5) creation of employee awareness, training, and incentives programs, 6) championing sitewide pollution prevention initiatives, and 7) technology transfer, information exchange, and public outreach. The Pollution Prevention Opportunity Assessment is the cornerstone of the pollution prevention program and the primary mechanism used to identify and prioritize options to prevent pollution and reduce waste. These assessments are performed on waste-generating activities by a team of individuals selected for their process knowledge.

These assessments are a systematic approach to identify the materials entering, the pollutants and wastes exiting, and the activities that make up a waste-generating process. Potential pollution prevention opportunities are identified, evaluated, and prioritized according to environmental, health, safety, and economic criteria. Once pollution prevention opportunities have been prioritized, schedules are developed, and the viable opportunities are implemented.

Resource Conservation and Recovery Act

Hanford Site Facility Resource Conservation and Recovery Act Permit

The Hanford Facility Resource Conservation and Recovery Act Permit was issued by the Washington State Department of Ecology and EPA in August 1994 and has been in effect since late September 1994. The permit provides the foundation for all future Resource Conservation and Recovery Act permitting at the Hanford Site in accordance with provisions of the Tri-Party Agreement.

Resource Conservation and Recovery Act/Dangerous Waste Permit Applications and Closure Plans

For purposes of the Resource Conservation and Recovery Act and the Washington State Department of Ecology's Dangerous Waste Regulations, the Hanford Site is considered to be a single facility encompassing over 60 treatment, storage, and disposal units. The Tri-Party Agreement recognized that all of the treatment, storage, and disposal units cannot be permitted simultaneously and set up a schedule for submitting unit-specific Part B Resource Conservation and Recovery Act/dangerous waste permit applications and closure plans to the Washington State Department of Ecology and EPA. During 1995, 12 Part A Form 3s and two Part B applications were certified and submitted to the Washington State Department of Ecology. In addition, six Notices of Intent for expansion were filed with the Washington State Department of Ecology, and seven treatment, storage, and disposal units were certified as closed.

Resource Conservation and Recovery Act Ground-Water Monitoring Project Management

Table 2.2.2 lists all the Resource Conservation and Recovery Act facilities and waste management areas and their ground-water monitoring program status. Samples were collected from nearly 300 wells in 1995. The ground-water samples were analyzed for a variety of dangerous waste constituents and site-specific constituents. Some sites were also analyzed for selected radionuclides. The list of constituents analyzed in 1995 was trimmed to reduce costs. The new constituent list still meets regulatory requirements and is still sufficient to meet data objectives. No new Resource Conservation and Recovery Act wells were drilled during the year.

The 183-H Solar Evaporation Basins are included in the Sitewide Resource Conservation and Recovery Act Permit and are subject to final status regulations. A final status ground-water monitoring program for the 183-H Solar Evaporation Basins was initiated in September 1995. The other sites listed in Table 2.2.2 are subject to interim status regulations at this time.

Four wells are monitored for the Environmental Restoration Disposal Facility. The facility is a Comprehensive Environmental Response, Compensation, and Liability Act landfill but will follow Resource Conservation and Recovery Act monitoring requirements. This monitoring program is conducted in accordance with 40 CFR 264 final status Resource Conservation and Recovery Act regulations.

Resource Conservation and Recovery Act Inspections

DOE and its Hanford contractors are working to resolve outstanding notices of violation and warning letters of noncompliance from the Washington State Department of Ecology that were received during 1995. Each of these notices lists specific violations. There were seven letters in 1995. Of the seven, six have had all corrective actions completed and have been closed. One was a formal violation that resulted in a $7,000 penalty. Below is a brief summary of the most significant of these issues.

- The Washington State Department of Ecology issued a voluntary compliance letter to Pacific Northwest National Laboratory for noncompliant conditions at the 324 Building's Radiochemical Engineering Cells and High-Level Vault tanks. This inspection was conducted to support resolution of a dispute between the Tri-Parties. The DOE Richland Operations Office and Pacific Northwest National Laboratory responded to the Washington State Department of Ecology with a letter that outlined the measures that would be taken to resolve the issues. The Washington State Department of Ecology has closed this issue "subject to issues being resolved via the Tri-Party Agreement." New Tri-Party Agreement milestones were negotiated for removal of waste from the 324 Building.

Table 2.2.2. Status of Hanford Site Resource Conservation and Recovery Act Interim-Status Ground-Water Monitoring Projects as of September 1995

Project (Date Initiated)	Individual Parameter Evaluation[a]	Ground-Water Quality Assessment
100-D Ponds (4/92)	X	
183-H Basins (6/85)		X
1301-N Liquid Waste Disposal Facility (12/87)	X	
1324-N/NA Ponds (12/87)		X
1325-N Liquid Waste Disposal Facility (12/87)	X	
216-B-3 Pond (11/88)		X
216-A-29 Ditch (11/88)		X
216-A-36B Crib (5/88)	X	
216-A-10 Crib (11/88)	X	
216-B-63 Trench (8/91)	X	
216-S-10 Pond (8/91)	X	
216-U-12 Crib (9/91)		X
LERF[b] (7/91)	X	
2101-M Pond (8/88)	X	
LLBG[c] Waste Management Area 1 (9/88)	X	
LLBG Waste Management Area 2 (9/88)	X	
LLBG Waste Management Area 3 (10/88)	X	
LLBG Waste Management Area 4 (10/88)	X	
LLBG Waste Management Area 5 (3/92)	X	
SST[d] Waste Management Area A-AX (2/90)	X	
SST Waste Management Area B BX-BY (2/90)	X	
SST Waste Management Area C (2/90)	X	
SST Waste Management Area S-SX (10/91)	X	
SST Waste Management Area T (2/90)		X
SST Waste Management Area TX-TY (9-10/91)		X
SST Waste Management Area U (10/91)	X	
300 Area Process Trenches (6/85)		X
Nonradioactive Dangerous Waste Landfill (10/86)	X	

(a) Specific parameters (pH, specific conductance, total organic carbon, and total organic halogen) used to determine if a facility is affecting ground-water quality. Exceeding the established limits means that additional evaluation and sampling is required (ground-water quality assessment). An “X” in the table indicates whether an evaluation was needed, or an assessment was required.

(b) LERF = Liquid Effluent Retention Facility.

(c) LLBG = Low-Level Burial Grounds.

(d) SST = single-shell tank.

- The Washington State Department of Ecology issued a voluntary compliance letter, which was followed by a formal Notice of Penalty Incurred and Due, against the DOE Richland Operations Office and Pacific Northwest National Laboratory after a pressurized drum in the 331 Building was improperly opened causing damage to the facility, worker contamination, and release of radioactive material to the building. A $7,000 fine was imposed. The fine was paid and both the informal and formal notices have been closed.

- The Washington State Department of Ecology issued a voluntary compliance letter to the DOE Richland Operations Office and Pacific Northwest National Laboratory after an investigation into the acceptance of labpack wastes (specially packaged liquid dangerous wastes) at the Central Waste Complex from offsite. Six violations were noted. All corrective actions were completed, and the Washington State Department of Ecology has closed this issue.

- The Washington State Department of Ecology issued two separate voluntary compliance letters to the DOE Richland Operations Office and the Site Environmental Restoration Contractor Team for an incident in which a drum containing 183-H Solar Evaporation Basin waste blew its lid off while it was being opened at T Plant for verification before storage. The first letter noted violations associated with inventories and characterization, and the second letter noted violations of training requirements in the Hanford Facility Resource Conservation and Recovery Act Permit. This item remained open at the end of 1995.

Clean Air Act

The Washington State Department of Health, Division of Radiation Protection, has promulgated regulatory controls for radioactive air emissions under Section 118 of the Clean Air Act. These controls are applicable to federal facilities such as the Hanford Site. Washington Administrative Code (WAC) 246-247 requires registration of all radioactive air emission point sources with the Washington State Department of Health. The Hanford Site received a state license for emissions based on this registration. The conditions specified in the license will be incorporated into the upcoming Hanford Site air operating permit, scheduled to be issued in 1997 in accordance with Title V of the Clean Air Act and 1990 amendments.

EPA has retained authority in Washington State for regulating certain hazardous pollutants under the National Emission Standards for Hazardous Air Pollutants, in accordance with 40 CFR 61. These standards are designed to protect the public from hazardous air pollutants (for example, arsenic, asbestos, beryllium, mercury, radionuclides, and vinyl chloride).

Pursuant to this program within the Clean Air Act, the EPA has promulgated regulations specifically addressing asbestos emissions. These regulations apply at the Hanford Site in building demolition and/or disposal and waste disposal operations. The asbestos is handled according to the Hanford Site asbestos abatement plan, which is controlled by Bechtel Hanford, Inc. The plan is updated annually and contains an inventory of all buildings on the Hanford Site that contain asbestos, as well as an annual projection of the amount of asbestos to be handled and disposed.

Revised Clean Air Act requirements for radioactive air emissions were issued in December 1989 under 40 CFR 61, Subpart H. The total emissions from the Hanford Site's DOE operations are within the State and EPA offsite emission standard of 10 mrem/yr (effective dose equivalent). The 1989 requirements for flow and emissions measurements, quality assurance, and sampling documentation are in the process of being implemented at all Hanford Site sources.

Reporting and monitoring requirements necessitated evaluation of all radionuclide emission points on the Hanford Site to determine which are subject to continuous emission measurement requirements in 40 CFR Part 61, Subpart H. This evaluation has been completed. In February 1994, a National Emission Standards for Hazardous Air Pollutants Federal Facility Compliance Agreement for the Hanford Site was approved. This agreement was signed by the EPA, Region 10, and DOE Richland Operations Office. It provides a compliance plan and schedule that is being followed to bring the Hanford Site into compliance with the Clean Air Act, as amended, and its implementing regulations in 40 CFR Part 61, National Emission Standards for Hazardous Air Pollutants: Radionuclides. The specific requirements are being addressed for continuous measurement of radionuclide emissions in accordance with 40 CFR Part 61.93.

Title VI of the Clean Air Act Amendments of 1990 requires regulation for the use and disposal of ozone-depleting substances through the requirements in

40 CFR Part 82. The Site operating and engineering contractor was assigned the lead by DOE Richland Operations Office directive to coordinate the development of a sitewide plan to implement the Title VI requirements. Ozone-depleting substance management on the Hanford Site is administered through a sitewide implementation plan prepared and issued during 1994. This implementation plan will be updated periodically to reflect changing federal regulations.

The Benton County Clean Air Authority enforces Regulation 1, which pertains to detrimental effects, fugitive dust, open burning, odor, opacity and asbestos handling. It has been delegated the authority to enforce EPA asbestos regulations under the National Emission Standards for Hazardous Air Pollutants. In 1995, the Site was in compliance with the regulations.

During 1995, Hanford Site air emissions remained below all regulatory limits set for radioactive and other pollutants. Routine reports of air emissions were provided to each air quality agency in accordance with requirements.

State of Washington Department of Health Enforcement Inspections

DOE and its Hanford contractors are working to resolve outstanding compliance findings from Washington State Department of Health inspections. Each of these findings lists specific violations. There were eight notices in 1995, and four of these have been resolved and closed. A brief summary of the most significant of these issues follows.

- Washington State Department of Health identified two findings at the Waste Sampling Characterization Facility as a result of how air samples from an unplanned release were handled. This issue has been closed.

- A finding at the Central Waste Complex was identified after drums stored at the facility were found to use lids containing an activated charcoal filter, which allows a gas exchange. The drums are not considered sealed sources, and Washington State Department of Health required the facility to obtain a Notice of Construction permit. This was completed and approved by Washington State Department of Health. Washington State Department of Health issued a compliance letter that resulted when previously identified audit findings were not corrected to the satisfaction of inspectors. The problems were associated with monitoring equipment either being improperly calibrated or having out-of-date calibration stickers. A corrective action plan was prepared and submitted to Washington State Department of Health but no formal notification of closure was received by the end of 1995.

- A sitewide radioactive air emissions audit by Washington State Department of Health of dose assessment activities performed by Westinghouse Hanford Company, Pacific Northwest National Laboratory, and Quanterra Laboratories resulted in the identification of 18 Notices of Correction. These Notices of Correction represent issues that previously would have been identified as findings. A response to Washington State Department of Health was being prepared at the end of 1995.

Clean Water Act

The Clean Water Act applies to point source discharges to waters of the United States. At the Hanford Site, the regulations are applied through National Pollutant Discharge Elimination System permits governing effluent discharges to the Columbia River.

A request for minor modification was submitted to EPA in August 1995 for permit #WA-000374-3 to remove the 100-N Area inactive outfalls from the monitoring and reporting requirements in the permit. A formal response had not been received from the EPA by the end of the calendar year. The remaining outfalls include two located in the 100-K Area (outfall 003 and 004) and one in the 300 Area (outfall 013). There were no instances of noncompliance for this permit in 1995.

Permit #WA-002592-7 covers the 300 Area Treated Effluent Disposal Facility and had six instances of noncompliance in 1995. All six cases were the result of effluent levels exceeding the National Pollutant Discharge Elimination System permit limits. The 300 Area Treated Effluent Disposal Facility was in normal operations and meeting design specifications at the time of these events. All indications suggest that the 300 Area Treated Effluent Disposal Facility is unable to consistently meet the

restrictions of the facility's National Pollutant Discharge Elimination System permit, despite the use of the best available technology. Based on operating history, it has been determined that the Treated Effluent Disposal Facility cannot operate under the current limits. Preparations for permit renegotiations are underway in accordance with the one year operating history review period specified when the permit was issued.

The Site has also been covered by a general stormwater permit since February 1994. In compliance with this permit, the Annual Comprehensive Site Compliance Evaluation was performed and documented, and the pollution prevention plan was updated. No instances of noncompliance occurred in 1995.

Liquid Effluent Consent Order

Washington State Department of Ecology Liquid Effluent Consent Order DE 91NM-177, which regulates Hanford Site liquid effluent discharges to the ground, contains compliance milestones for Hanford Site liquid effluent streams designated as Phase I, Phase II, and Miscellaneous Streams. State waste discharge permit applications have been submitted to the Washington State Department of Ecology for all liquid effluent streams required by the Consent Order.

Two State liquid waste discharge permits were issued by the Washington State Department of Ecology in 1995, one for the 200 Area Treated Effluent Disposal Facility and one for the 200 Area Effluent Treatment Facility. A noncompliance with an Effluent Treatment Facility permit requirement occurred when the Operational Maintenance Matrices document for the facility was submitted late to the Washington State Department of Ecology.

The Miscellaneous Streams Plan and Schedule was approved by the Washington State Department of Ecology in February 1995. This plan and schedule addresses how and when the remaining miscellaneous streams will become compliant with state regulations. The Plan and Schedule proposed that four categorical permits be submitted over the next four years to ensure the efficient use of both state and federal resources in the permit development. A state waste discharge categorical permit application for hydrotest (pressure test), construction, and maintenance discharges was submitted to the Washington State Department of Ecology in November 1995. DOE Richland Operations Office and its contractors met with the Washington State Department of Ecology during 1995 to develop draft discharge permits. In accordance with the Plan and Schedule, all Class V injection wells were registered with the Washington State Department of Ecology in August 1995.

An inventory of miscellaneous streams was submitted to the Washington State Department of Ecology in September 1995 in accordance with the Miscellaneous Streams Plan and Schedule. In May 1995, a list identifying streams that require the selection of Best Management Practices was submitted to the Washington State Department of Ecology. The criteria for determining whether a stream was a candidate for a Best Management Practice was: 1) effluent discharge to a surface contamination area, 2) effluent discharge to the ground within 300 horizontal feet from a known active or inactive crib, ditch or pond, and 3) the potential of contamination within the effluent stream. A Best Management Engineering Report was initiated to address the listed streams in 1995.

Lawsuits Filed

Heart of America Northwest et al. filed a lawsuit against both the Site management and operations contractor and DOE in early 1992. The suit alleged violations of the Clean Water Act resulting from discharges of pollutants without a permit and for failure to notify the appropriate agencies of releases of hazardous substances from high-level waste tanks. In April 1993, U.S. District Court granted a Motion to Dismiss and dismissed all claims made by the plaintiffs. The plaintiffs appealed to the United States Court of Appeals for the Ninth Circuit in October 1993. The United States Court of Appeals for the Ninth Circuit dismissed this case in January 1995.

Safe Drinking Water Act

The National Primary Drinking Water Regulations of the Safe Drinking Water Act apply to the drinking water supplies at the Hanford Site. These regulations are enforced by the Washington State Department of Health. The Hanford Site water supplies are monitored for the contaminants listed in the rules and regulations of the Washington State Department of Health regarding public water systems. In 1995, all drinking water systems on the Site were in compliance with requirements and agreements; however, tritium concentrations in two drinking water samples collected at the Fast Flux Test Facility in June and July were slightly elevated (see Section 4.3, "Hanford Site Drinking Water Surveillance").

There are currently six Group A and six Group B water systems at Hanford. The Group A systems consist of five surface-water systems and one ground-water system; the Group B systems consist of two surface-water systems and four ground-water systems. A study is currently being performed that will validate the water's quality for the five Group A surface-water systems onsite. The study will include measurements of chlorine concentrations, temperature, and pH.

A notice of violation was issued to DOE by the Washington State Department of Health in October 1995, alleging that, based on their records, the 100 Area water system was being operated without certified operators. DOE responded in December 1995, and provided a list of the certified operators and their certification test results.

Toxic Substances Control Act

The Toxic Substances Control Act requirements applied to the Hanford Site essentially involves regulation of polychlorinated biphenyls (PCBs). Federal regulations for use, storage, and disposal of PCBs are found in 40 CFR 761. State of Washington dangerous waste regulations for managing PCB wastes are listed in WAC 173-303.

Electrical transformers have been sampled and characterized. Seventeen PCB transformers (those with a PCB concentration greater than 500 ppm) remain in service. Schedules have been developed for the replacement and disposal of these PCB transformers.

Defueled, decommissioned reactor compartments shipped by the U.S. Navy to the Hanford Site for disposal contain small quantities of PCBs. Because PCBs are present, the reactor compartments are regulated under this Act. A compliance agreement between EPA and DOE defines the process by which a chemical waste landfill approval under this Act will be issued for the disposal trench. The EPA Region 10 will grant a Toxic Substances Control Act authorization for the disposal site after the State has issued a dangerous waste permit.

Nonradioactive PCB waste is stored and disposed of in accordance with the 40 CFR 761 requirements. Radioactive PCB waste remains in storage onsite pending the development of adequate treatment and disposal technologies and capacities. A draft DOE-wide Federal Facilities Compliance Agreement allowing the storage of radioactive PCB wastes beyond the regulatory limit set forth in 40 CFR 761 has been developed and approved by DOE and the U.S. Navy. The agreement will be implemented when approved by the EPA.

Federal Insecticide, Fungicide, and Rodenticide Act

The Federal Insecticide, Fungicide, and Rodenticide Act is administered by EPA. The standards administered by the Washington State Department of Agriculture to regulate the implementation of the act in Washington State include: Washington Pesticide Control Act, RCW 15.58; Washington Pesticide Application Act, RCW 17.21; and rules relating to general pesticide use codified in WAC 16-228, "Pesticide Regulations." At the Hanford Site, all pesticides are applied by commercial pesticide operators who are listed on one of two commercial pesticide applicator licenses. In 1995, the Hanford Site was in compliance with these state and federal standards regulating the storage and use of pesticides.

Endangered Species Act

Many rare species of native plants and animals are known to occur on the Hanford Site. Two of these are listed by the U.S. Fish and Wildlife Service as endangered or threatened. Others are listed as federal candidate species, or by the Washington State Department of Fish and Wildlife as endangered, threatened, or sensitive species (see Appendix F). The Site wildlife monitoring program is discussed in Section 6.2, "Wildlife."

Bald eagles, a threatened species, are seasonal visitors to the Hanford Site. Over the past few years, several bald eagles have attempted to nest onsite, but none have been successful. In compliance with the Bald Eagle Management Plan for the Hanford Site and Section 7 of the Endangered Species Act, access roads in the nesting areas are closed each year from January until the eagles abandon the site in the early spring to protect the nesting environment.

In 1993, the Richland Operations Office directed that an ecological review be conducted on all projects both on and off the Site that have the potential to affect the biological environment. The scope of the review includes evaluating whether any species protected by the Act

occur in a proposed project area, quantifying any impacts that might result, and identifying mitigation to minimize or eliminate impacts. Reviews have been conducted on an ongoing basis. There were no additional compliance issues during 1995.

National Historic Preservation Act, Archaeological Resources Protection Act, Native American Graves Protection and Repatriation Act, and American Indian Religious Freedom Act

Cultural resources on the Hanford Site are subject to the provisions of these four Acts. Compliance with the applicable regulations is accomplished through an active management and monitoring program that includes a review of all proposed projects to assess potential impacts on cultural resources, periodic inspections of known archaeological and historical sites to determine their condition and eligibility for listing on the National Register of Historic Places, determination of the effects of land management policies on the sites, and management of a repository for federally owned archaeological collections. In 1994, 511 reviews and inspections were conducted on the Hanford Site.

The American Indian Religious Freedom Act requires federal agencies to help protect and preserve the rights of Native Americans to practice their traditional religions. The Richland Operations Office cooperates with Native Americans by providing Site access for organized religious activities.

There were no additional compliance issues during 1995.

National Environmental Policy Act

The National Environmental Policy Act requires preparation of an Environmental Impact Statement to review the effects and alternatives of major federal actions that have the potential to significantly affect the quality of the human environment. Other National Environmental Policy Act documents include the environmental assessment, which is prepared to determine if a proposed action has a potential to significantly impact the environment and therefore requires preparation of an environmental impact statement. Certain types of actions may fall into categories that have already been reviewed by DOE and are determined not to result in a significant environmental impact. Actions that fall within these categorical exclusions are exempt from further National Environmental Policy Act review.

The Council on Environmental Quality, which reports directly to the President, was established to oversee the National Environmental Policy Act process. National Environmental Policy Act documents are prepared and approved in accordance with the Council on Environmental Quality National Environmental Policy Act regulations (40 CFR 1500 to 1508), DOE National Environmental Policy Act implementation procedures (10 CFR 1021), and DOE Order 451.1.

Recently Approved Environmental Impact Statements

The final environmental impact statement, Decommissioning of Eight Surplus Production Reactors at the Hanford Site, Richland, Washington (DOE 1992a, DOE/EIS-0212) has been approved. This environmental impact statement assessed potential environmental impacts of decommissioning eight water-cooled, graphite-moderated reactors on the Hanford Site. The environmental impact statement evaluated five alternatives including immediate one-piece removal, safe storage followed by deferred dismantlement, and in situ decommissioning. The scope of this environmental impact statement does not include decommissioning of the N Reactor. The Record of Decision was published in the *Federal Register* in September 1993 (58 FR 48509). DOE has decided on safe storage followed by deferred one-piece removal of these eight surplus production reactors at the Hanford Site. DOE intends to complete this decommissioning action consistent with the proposed Hanford cleanup schedule for remedial actions included in the Tri-Party Agreement. Therefore, the safe storage period would be shorter than the 75 years outlined in the final environmental impact statement. Until decommissioning begins, DOE will continue to conduct routine maintenance, surveillance, and radiological monitoring activities to ensure continued protection of the public and the environment during the safe-storage period.

A Safe Interim Storage environmental impact statement was completed for a proposed Multifunction Waste Tank

Facility (DOE 1995c). Potential environmental impacts are reviewed that are associated with the construction and operation of up to six new 3.8-million-L (1-million-gal) double-shell waste tanks and a cross-site transfer line. The transfer line would resolve safety concerns regarding hydrogen generation in two waste tanks. The Record of Decision, published in the *Federal Register* in December 1995, states that DOE intends to replace the existing cross-site transfer line between the 200-East and 200-West Areas of the Hanford Site. The Washington State Department of Ecology was a co-preparing agency for this environmental impact statement.

The Programmatic Spent Nuclear Fuel Management and Idaho National Engineering Laboratory Environmental Restoration and Waste Management Programs Environmental Impact Statement evaluated alternatives for the management of spent nuclear fuel within the DOE complex. The environmental impact statement evaluated the use of several sites, including Hanford, as potential sites for spent nuclear fuel storage. The environmental impact statement also evaluated environmental and waste management issues at the Idaho National Engineering Laboratory. In August 1993, Hanford was requested to support the preparation of this environmental impact statement. DOE issued the final environmental impact statement in April 1995 (DOE 1995a) and a Record of Decision in May 1995 (DOE 1995b).

A final environmental impact statement was issued in January 1996 (DOE 1996d) for spent nuclear fuel stored at the Hanford Site. The environmental impact statement analyzes potential environmental impacts associated with removal and subsequent management of spent nuclear fuel from the K Basins. This action is needed to reduce the risk of release of radionuclides through the soil column to the Columbia River in the event of failure of the existing K Basins. The environmental impact statement supports implementation of a final decision that was made in the Record of Decision for DOE's programmatic environmental impact statement on spent nuclear fuel.

The National Park Service released a final environmental impact statement in June 1994 (NPS 1994) that covers options for the future management of the Hanford Reach of the Columbia River. The agency's proposed action is to make Hanford's North Slope a National Wildlife Refuge and to designate the Hanford Reach as a recreational river under the Wild and Scenic River system. This would transfer responsibility for the river, a 0.4-km (0.25-mi)-wide strip of land on both shores, and the North Slope, to the U.S. Fish and Wildlife Service. The Richland Operations Office would retain responsibility for remediation and Hanford Site security. A record of decision has not yet been issued.

Programmatic Environmental Impact Statements in Progress

A Programmatic Environmental Impact Statement is being prepared by the Office of Environmental Restoration and Waste Management. The purpose of this impact statement is to evaluate a broad range of alternatives for the configuration of new and expanded waste management facilities. It could include remediation actions, compliance with the Resource Conservation and Recovery Act and the Comprehensive Environmental Response, Compensation, and Liability Act, restoration, waste management, and repositories. The notice of intent was published in the *Federal Register* (55 FR 42633) in October 1990. DOE Headquarters issued an implementation plan for public comment in 1992. The notice of availability of the draft impact statement was published in the *Federal Register* in August 1995. The public comment period was extended until February 1996.

A Weapons Complex Reconfiguration Modernization Programmatic Environmental Impact Statement is being prepared by the Office of Defense Programs. The purpose of this programmatic environmental impact statement is to evaluate alternative approaches for reconfiguring the DOE defense program, and its facilities, on both a programmatic and site-specific level. With the end of the Cold War, the U.S. is reducing its stockpile of nuclear weapons. This reduction requires DOE to reevaluate its earlier alternatives for reconfiguring the nuclear weapons complex. A revised notice of intent was published in the *Federal Register* in July 1993. Significant changes could involve the addition of consolidated long-term storage facilities for plutonium and uranium, and consolidation of all weapons-complex functions at one site. The Nevada Test Site has been proposed as a new candidate site, and the Hanford Site was dropped from further consideration. The scope of this impact statement is under review.

Site-Specific Environmental Impact Statements In Progress

The Tank Waste Remediation System Environmental Impact Statement has its origin in two DOE decisions. The first was an October 1990 commitment by the Secretary of Energy to prepare a supplemental impact

statement to the 1987 Hanford Defense Waste Environmental Impact Statement to address tank management and safety issues. The second was a December 1991 decision by the Secretary of Energy to revise the entire tank safety/tank waste treatment and disposal program and to accelerate retrieval of single-shell tank wastes. This environmental impact statement combines the scope of the originally planned supplemental environmental impact statement and the tank safety mitigation/remediation issues environmental impact statement. The notice of intent was published in the *Federal Register* in January 1994. Public scoping was conducted during February and March 1994, and the draft environmental impact statement was issued in April 1996. The Record of Decision is scheduled for July 1996.

Potential environmental impacts of the Comprehensive Environmental Response, Compensation, and Liability Act and the Resource Conservation and Recovery Act past-practices remediation activities at the Hanford Site, particularly cumulative impacts, will be assessed in the Hanford Remedial Action Environmental Impact Statement. This environmental impact statement will cover environmental restoration of past-practices liquid effluent disposal sites, buried solid low-level wastes, pre-1970 transuranic wastes, high-activity wastes associated with storage tanks and their piping, and miscellaneous dangerous and nondangerous waste sites. Additional National Environmental Policy Act documentation could be prepared, as needed, for specific remediation of individual operable units or construction of waste management facilities. The Hanford Remedial Action Environmental Impact Statement will not make site-specific level-of-cleanup decisions. Instead, the final decision on this environmental impact statement may establish objectives for future site use that will in turn support the regulatory framework for establishing cleanup levels for individual waste sites. The notice of intent was published in the *Federal Register* during August 1992. The draft environmental impact statement is targeted for completion in September 1996.

Preparation of an environmental impact statement to address stabilization and removal of readily retrievable plutonium-bearing materials stored at the Plutonium Finishing Plant is under way. An interim action environmental assessment was published in 1994 for the Plutonium Reclamation Facility stabilization.