**AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT**

<table>
<thead>
<tr>
<th>1. CONTRACT ID CODE</th>
<th>2. AMENDMENT/MODIFICATION NO.</th>
<th>3. EFFECTIVE DATE (M/D/Y)</th>
<th>4. REQUISITION/PURCHASE REQ. NO.</th>
<th>5. PROJECT NO. (If applicable)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M041</td>
<td>9/15/04</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6. ISSUED BY CODE
U.S. Department of Energy
Office of River Protection
P. O. Box 450, MS H6-60
Richland, WA 99352

7. ADMINISTERED BY (If other than Item 6) CODE

Bechtel National, Inc.
2435 Stevens Center Place
Richland, WA 99352

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP code)

Bechtel National, Inc.
2435 Stevens Center Place
Richland, WA 99352

9A. AMENDMENT OF SOLICITATION NO. DE-AC27-01RV14136

9B. DATED (SEE ITEM 11)
December 11, 2000

10A. MODIFICATION OF CONTRACT/ORDER NO.

10B. DATED (SEE ITEM 13)
December 11, 2000

11. THIS ITEM APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of offers is extended, ☐ is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning ___ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE DATE AND HOUR SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and amendment and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (if required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS SET FORTH IN ITEM 14.

☐ A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.

☐ B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO AUTHORITY OF FAR 43.103(b).

☒ C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO THE AUTHORITY OF:
Mutual Agreement of the Parties and Clause I.82, FAR 52.243-2 Changes - Cost Reimbursement (AUG 1987) Alt. III (APR 1984)

☐ D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor ☒ is not, ☐ is required to sign this document and return 2 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

Incorporates ILAW product changes (Spec. 2), FAR 52.223-10 “Waste Reduction Program,” updates DOE Directives and Key Personnel list. See attached pages.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)
Jim Henschel, Project Director

15B. CONTRACTOR/OFFEROR

15C. DATE SIGNED 9/15/04

15D. UNITED STATES OF AMERICA

16A NAME AND TITLE OF CONTRACTING OFFICER (Type or print)
Roy J. Schepens, Manager

16B. UNITED STATES OF AMERICA

16C. DATE SIGNED 9/15/04

(Signature of person authorized to sign)

(Signature of Contracting Officer)
Description of the Modification.

The following changes are hereby incorporated into the contract:

1) Section C, Specification 2, paragraph 2.2.2.2, delete the last sentence which reads “The loading of waste sodium for waste from double shelled tank (DST) AZ-102 shall be greater than 3.0 weight percent based upon Na₂O”.

Paragraph 2.2.2.3, delete the second sentence which reads “The as fabricated package dimensions shall be constant and have a dimensional tolerance of +/-0.01m”. Delete the text “and shall fit completely and without forcing when lowered vertically into a right circular cylindrical cavity having internal dimensions of 1.27 m diameter by 2.4 m high” from the last sentence.

Remove page C-90 from the contract document and replace it with the attached page C-90.

2) Section C, Specification 2, delete the text of paragraphs 2.2.2.6.1 and 2.2.2.6.3 and replace with the word “DELETED”.

Remove page C-91 from the contract document and replace it with the attached page C-91.

3) Section C, Specification 2, paragraph 2.2.2.8, delete the following text from the first sentence “and as described in NRC’s Branch Technical Position on Concentration Averaging and Encapsulation”. Change the second sentence to read as follows: In addition, the average glass concentrations of $^{137}$Cesium ($^{137}$Cs) and $^{90}$Strontium ($^{90}$Sr) shall be limited as follows: $^{137}$Cs<3 Ci/m$^3$ and $^{90}$Sr<20 Ci/m$^3$. Delete the last sentence and replace it with the following: “The method used to perform concentration averaging should be identified in the ILAW Product Compliance Plan.”

Paragraph 2.2.2.11, delete the last sentence.

Remove page C-92 from the contract document and replace it with the attached page C-92.

4) Section C, Specification 2, paragraph 2.2.2.17.1, delete the text and replace with the word “DELETED”.

Paragraph 2.2.2.18, delete the parenthetical text “(and any optional filler material)”.

Paragraphs 2.2.2.19 and 2.2.2.19.1 through 2.2.2.19.3, delete the text and replace with the word “DELETED”.

Remove page C-93 from the contract document and replace with the attached page C-93.

5) Section C, Specification 2, paragraph 2.2.2.19.4 delete the text and replace with the word “DELETED”.

Paragraph 2.2.2.21, delete the text “50,000 kg” and replace with “five times the weight of the container”. Change the second sentence to read “Compliance with this specification shall be established by using the compression (stacking) test described in 49CFR173.465(d) or evaluated against this test by any of the methods authorized by 49CFR173.461(a)”.

Delete the following
text from the last sentence “showing that the dimensions of the tested packages are within the
tolerance range and by”.

Paragraph 2.2.2.22, delete the first and last sentences.

Remove page C-94 from the contract document and replace with the attached page C-94.

6) Section C, Specification 7, Table TS-7.2 the portion of the table formerly on page C-101 is
moved to page C-102. Note 2 is changed to read as follows: “TRU is defined as: Alpha-emitting
radionuclides with an atomic number greater than 92 with half-life greater than 20 years”.

Remove pages C-101 and C-102 from the contract document and replace with the attached pages
C101 and C102.

7) Section I, Table of Contents, add I.120 52.223-10 WASTE REDUCTION PROGRAM.

Remove page I-v from the contract document and replace with the attached page I-v.

8) Section I, add complete text of FAR Clause 52.223-10 WASTE REDUCTION PROGRAM at
paragraph I.120.

Remove page I-142 from the contract document and replace with the attached page I-142.

9) Section J, Attachment E(a), change RL/REG-97-13 to reflect Revision 10 with an effective date

Attachment E(b), delete DOE N 231.1, Environment, Safety, and Health Reporting Notice.

Remove page J-9 from the contract document and replace with the attached page J-9.

10) Section J, Attachment F “Key Personnel,” the following changes:
   1. Delete: Tomasitis, Rueter, Monrean, and Green.
   2. Add Craig Albert, Manager of Functions.
   3. Brosee’s position is changed to Operations Manager.
   4. Piccolo’s position is changed to Deputy Project Director.

Remove page J-11 from the contract document and replace with the attached page J-11.

11) Contractor’s statement of release: The contractor hereby releases the Government from any and
all liability under this contract for further equitable adjustments attributable to the contract
revisions reflected in this modification.


2.2.1.20 Vitreous State Laboratory, 1998. *Glass Formulation and Testing with TWRS LAW Simulants,* The Catholic University of America, Washington, D.C.

2.2.2 *Product Requirements:*

2.2.2.1 **Package Description:** The ILAW product shall be in the form of a package. The constituent parts of each package are a sealed stainless-steel container enclosing a poured glass waste form and an optional filler material of sand or glass. If an optional filler is used, DOE concurrence on the filler composition is required.

2.2.2.2 **Waste Loading:** The loading of waste sodium from Envelope A in the ILAW glass shall be greater than 14 weight percent based on Na₂O. The loading of waste sodium from Envelope B in the ILAW glass shall be greater than 3.0 weight percent based on Na₂O. The loading of waste sodium from Envelope C in the ILAW glass shall be greater than 10 weight percent based on Na₂O.

2.2.2.3 **Size and Configuration:** The package shall be a 304L stainless-steel right circular cylinder. The height of the package shall be 2.286m (90"), and the diameter shall be 1.22 m (48"). At the time of acceptance, the ILAW package shall stand without support on a flat, horizontal surface.
2.2.2.4 **Mass**: The mass of each package shall not exceed 10,000 kilograms.

2.2.2.5 **Void Space**: The void space in the container shall not exceed 10 percent of the total internal volume at the time of filling, excluding void space internal to the glass waste form (e.g., small bubbles in the glass). After cooling, if necessary, the container shall be filled with suitable inert dry filler such that the void space meets the requirements of Dangerous Waste Regulation WAC 173-303-665 (12); i.e., the container shall be at least ninety (90) percent full when placed in the landfill.

2.2.2.6 **Chemical Composition Documentation**: The chemical composition of the waste form, filler, and package shall be identified.

2.2.2.6.1 **DELETED**

2.2.2.6.2 **Chemical Composition During Production**: The production documentation (Table C.5-1.1, Deliverable 6.7) shall provide the chemical composition of each waste form, optional filler, and package. The reported composition shall include elements (excluding oxygen) present in concentrations greater than 0.5 percent by weight and elements and compounds required to meet regulatory or Contract requirements.

2.2.2.6.3 **DELETED**

2.2.2.7 **Radiological Composition Documentation**: The radionuclide composition of the waste form shall be documented. Radionuclides shall be identified that are significant as defined in NUREG/BR-0204 and 49CFR172.101 (Table 2). Technetium-99 (99Tc) shall be considered to be significant at concentrations greater than 0.003 Ci/m³ in the ILAW form. The inventories shall be indexed to December 31, 2002. The documentation shall be consistent with the radiological description format described in NUREG/BR-0204.

2.2.2.7.1 **Radionuclide Composition Qualification**: The ILAW Product Qualification Report (Table C.5-1.1, Deliverable 6.6) shall identify the estimated radionuclide concentration in the waste form.

2.2.2.7.2 **Radionuclide Composition During Production**: The ILAW production documentation (Table C.5-1.1, Deliverable 6.7) shall identify the radionuclide inventory in each ILAW package produced. The actual inventory indexed at the month of product transfer and the inventory indexed to December 31, 2002, shall be reported.
2.2.2.8 **Radionuclide Concentration Limitations:** The radionuclide concentration of the ILAW form shall be less than Class C limits as defined in 10CFR61.55. In addition, the average glass concentrations of \(^{137}\text{Cesium (Cs)}\) and \(^{90}\text{Strontium (Sr)}\) shall be limited as follows: \(^{137}\text{Cs} < 3 \text{ Ci/m}^3\) and \(^{90}\text{Sr} < 20 \text{ Ci/m}^3\). The method used to perform concentration averaging should be identified in the ILAW Product Compliance Plan.

2.2.2.9 **Surface Dose Rate Limitations:** The dose rate at any point on the external surface of the package shall not exceed 500 mRem/hr.

2.2.2.10 **Surface Contamination Limitations:** Removable contamination on the external surfaces of the package shall not exceed 367 Bq/m\(^2\) for alpha and 3670 Bq/m\(^2\) for beta-gamma contamination when measured using the method described in 49CFR173.443(a).

2.2.2.11 **Labeling:** Each package shall have an identification number on the shoulder and side of the package as described in the ILAW Product Compliance Plan (Table C.5-1.1, Deliverable 6.3). The lettering on the label shall be at least 5.0 cm high, and characters shall have a width of at least 3.5 cm. The label shall contain a unique identification (e.g., serial number), which shall be assigned to each package and the corresponding documentation. Labels and markings shall have a predicted service life of 50 years assuming that the packages are stored in a ventilated enclosure at ambient temperatures.

2.2.2.12 **Closure and Sealing:** The fully loaded package shall be closed and sealed. The closure system shall be sealed to prevent the dispersal of radioactive material during the most severe conditions encountered during normal use and handling. The closure system shall be designed to ensure that the seal remains intact for a storage period of 50 years in an ambient-temperature, ventilated enclosure.

2.2.2.13 **External Temperature:** The temperature of the accessible external surfaces of the package shall not exceed 465°F (alternating pour) or 550°F (single pour) when returned to DOE. This temperature constraint shall assume a shaded, still air environment at an ambient temperature of 38°C.

2.2.2.14 **Free Liquids:** The package shall contain no detectable free liquids as defined in ANSI/ANS-55.1 or SW-846 Method 9095.

2.2.2.15 **Pyrophoricity or Explosivity:** The package contents shall not be pyrophoric, readily capable of detonation, or readily capable of explosive decomposition or reaction (including reaction with water) at normal pressure and temperature. The waste form and any optional filler materials shall not be ignitable or reactive as defined in WAC 173-303-090(5) and WAC 173-303-090(7).

2.2.2.16 **Explosive or Toxic Gases:** The package shall not contain or be capable of generating quantities of explosive (e.g., hydrogen) or toxic gases, vapors, or fumes harmful to persons handling the waste.
2.2.2.17  Waste Form Testing:

2.2.2.17.1  DELETED

2.2.2.17.2  Product Consistency Test: The normalized mass loss of sodium, silicon, and boron shall be measured using a seven day product consistency test run at 90°C as defined in ASTM C1285-98. The test shall be conducted with a glass to water ratio of 1 gram of glass (-100 +200 mesh) per 10 milliliters of water. The normalized mass loss shall be less than 2.0 grams/m². Qualification testing shall include glass samples subjected to representative waste form cooling curves. The product consistency test shall be conducted on waste form samples that are statistically representative of the production glass.

2.2.2.17.3  Vapor Hydration Test: The glass corrosion rate shall be measured using at least a seven day vapor hydration test run at 200°C as defined in the DOE concurred upon ILAW Product Compliance Plan. The measured glass alteration rate shall be less than 50 grams/(m² day). Qualification testing shall include glass samples subjected to representative waste form cooling curves. The vapor hydration test shall be conducted on waste form samples that are representative of the production glass.

2.2.2.18  Compressive Strength: The mean compressive strength of the waste form shall be determined by testing representative non-radioactive samples. The compressive strength shall be at least 3.45E6 Pa when tested in accordance with ASTM C39/C39M-99 or an equivalent testing method.

2.2.2.19  DELETED

2.2.2.19.1  DELETED

2.2.2.19.2  DELETED

2.2.2.19.3  DELETED
2.2.2.19.4  IDELETED

2.2.2.20 Dangerous Waste Limitations: The ILAW product shall be acceptable for land disposal under the State of Washington Dangerous Waste Regulations, WAC 173-303, and RCRA LDR in 40CFR268.

2.2.2.21 Compression Testing: Each fully loaded package shall be able to withstand a compression load of five times the weight of the canister. Compliance with this specification shall be established by using the compression (stacking) test described in 49CFR173.465(d) or evaluated against this test by any of the methods authorized by 49CFR173.461(a). The integrity of the package shall be demonstrated by showing that the seal remains intact in accordance with Specification 2.2.2.12, Closure and Sealing.

2.2.2.22 Container Material Degradation: The container and handling appurtenances shall be designed to allow safe lifting and movement (in accordance with Specification 2.2.3.1) after a storage period of 50 years.

2.2.2.23 Manifesting: A shipping manifest shall be prepared for delivery with each shipment of ILAW product. Information on the manifest shall satisfy the requirements in DOE Manual 435.1-1, Chapter N, Section I.(2), and NUREG/BR-0204. Any package containing dangerous waste must be labeled and manifested in accordance with WAC 173-303-370 and the Dangerous Waste Portion of the Resource Conservation and Recovery Act Permit for the Treatment, Storage, and Disposal of Dangerous Wastes (Permit No. WA 7890008967).

2.2.3 Handling Requirements:

2.2.3.1 Package Handling: The package shall be compatible with crane lifting and movement. The package shall be equipped with lifting and other handling appurtenances designed to allow safe lifting, and movement, when fully loaded. The package shall maintain its integrity during handling, and transportation.

2.3 Quality Assurance: A QA Program (Table C.5-1.1, Deliverable 6.11) for ILAW Product development, qualification, characterization, and certification is required and shall be based upon NQA-1, 1989 Revision unless exceptions are agreed upon by the contracting parties. The QA Plan shall address the QA/quality control requirements addressed in SW-846 and WAC 173-303-806.

2.4 Inspection and Acceptance: The DOE-approved ILAW Product Compliance Plan (Table C.5-1.1, Deliverable 6.3), described in Standard 6, Product Qualification, Characterization, and Certification, defines the content and delivery of documentation required to demonstrate compliance with the requirements of this specification. Product inspection and acceptance shall be performed in accordance with Specification 13, Waste Product Inspection and Acceptance, and the required ILAW QA Program. In addition to Specification 13 requirements for ILAW, the Contractor shall conform to the Contractor Certification Program as described in DOE Manual 435.1-1, Chapter IV, Section J.(1).
where X and Y are defined above. The waste loading limitations shall be based solely upon sodium additions required for cesium, strontium and TRU removal from Envelope C for the particular waste feed. The waste loading limitations shall also be based on the Tc concentrations of the LAW waste form.

### Table TS-7.1 Low-Activity Waste Chemical Composition, Soluble Fraction Only

<table>
<thead>
<tr>
<th>Chemical Analyte</th>
<th>Maximum Ratio, analyte (mole) to sodium (mole)</th>
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<tbody>
<tr>
<td></td>
<td>Envelope A</td>
</tr>
<tr>
<td>Al</td>
<td>2.5E-01</td>
</tr>
<tr>
<td>Ba</td>
<td>1.0E-04</td>
</tr>
<tr>
<td>Ca</td>
<td>4.0E-02</td>
</tr>
<tr>
<td>Cd</td>
<td>4.0E-03</td>
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<td>Cl</td>
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<td>Cr</td>
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<td>F</td>
<td>9.1E-02</td>
</tr>
<tr>
<td>Fe</td>
<td>1.0E-02</td>
</tr>
<tr>
<td>Hg</td>
<td>1.4E-05</td>
</tr>
<tr>
<td>K</td>
<td>1.8E-01</td>
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<tr>
<td>La</td>
<td>8.3E-05</td>
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<tr>
<td>Ni</td>
<td>3.0E-03</td>
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<tr>
<td>NO₂</td>
<td>3.8E-01</td>
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<td>NO₃</td>
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<td>Pb</td>
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<td>PO₄</td>
<td>3.8E-02</td>
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<td>SO₄</td>
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<tr>
<td>TIC¹</td>
<td>3.0E-01</td>
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<tr>
<td>TOC²</td>
<td>5.0E-01</td>
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<tr>
<td>U</td>
<td>1.2E-03</td>
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</table>

**Notes:**
1. Mole of inorganic carbon atoms/mole sodium
2. Mole of organic carbon atoms/mole sodium
Table TS-7.2  Low-Activity Waste Radionuclide Content, Soluble Fraction Only  
Maximum Ratio, radionuclide to sodium (mole)

<table>
<thead>
<tr>
<th>Radionuclide</th>
<th>Envelope A</th>
<th>Envelope B</th>
<th>Envelope C</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Bq</td>
<td>uCi</td>
<td>Bq</td>
</tr>
<tr>
<td>TRU</td>
<td>4.80E+05</td>
<td>1.30E+01</td>
<td>4.80E+05</td>
</tr>
<tr>
<td>^137Cs</td>
<td>4.30E+09</td>
<td>1.16E+05</td>
<td>2.00E+10</td>
</tr>
<tr>
<td>^90Sr</td>
<td>4.40E+07</td>
<td>1.19E+03</td>
<td>4.40E+07</td>
</tr>
<tr>
<td>^99Tc</td>
<td>7.10E+06</td>
<td>1.92E+02</td>
<td>7.10E+06</td>
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<tr>
<td>^60Co</td>
<td>6.10E+04</td>
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<tr>
<td>^154Eu</td>
<td>6.00E+05</td>
<td>1.62E+01</td>
<td>6.00E+05</td>
</tr>
</tbody>
</table>

Notes:
1. The activity limit shall apply to the feed certification date.
2. TRU is defined as: Alpha-emitting radionuclides with an atomic number greater than 92 with half-life greater than 20 years.

Some radionuclides, such as ^90Sr and ^137Cs, have daughters with relatively short half-lives. These daughters have not been listed in this table. However, they are present in concentrations associated with the normal decay chains of the radionuclides.

1Bq = 2.703 e-5 uCi
I.95  FAR 52.251-2  INTERAGENCY FLEET MANAGEMENT SYSTEM VEHICLES AND RELATED SERVICES (JAN 1991)  
I.96  FAR 52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)  
I.97  FAR 52.252-6 AUTHORIZED DEVIATIONS IN CLAUSES (APR 1984)  
I.98  FAR 52.253-1 COMPUTER GENERATED FORMS (JAN 1991)  
I.99  (RESERVED)  
I.100  DEAR 952.208-7 TAGGING OF LEASED VEHICLES (APR 1984)  
I.101  DEAR 952.208-70 PRINTING (APR 1984)  
I.102  DEAR 952.216-7 ALLOWABLE COST AND PAYMENT (JAN 1997) – ALTERNATE II  
I.103  DEAR 952.217-70 ACQUISITION OF REAL PROPERTY (APR 1984)  
I.104  DEAR 952.222-70 WHISTLEBLOWER PROTECTION FOR CONTRACTOR EMPLOYEES (APR 1999)  
I.105  DEAR 952.223-71 INTEGRATION OF ENVIRONMENT, SAFETY, AND HEALTH INTO WORK PLANNING AND EXECUTION (JUN 1997)  
I.106  DEAR 952.223-75 PRESERVATION OF INDIVIDUAL OCCUPATIONAL RADIATION EXPOSURE RECORDS (APR 1984)  
I.107  DEAR 952.224-70 PAPERWORK REDUCTION ACT (APR 1994)  
I.108  DEAR 952.245-5 GOVERNMENT PROPERTY (COST REIMBURSEMENT, TIME-AND-MATERIALS, OR LABOR-HOUR CONTRACTS)  
I.109  DEAR 952.247-70 FOREIGN TRAVEL (DEC 2000)  
I.110  DEAR 952.250-70 NUCLEAR HAZARDS INDEMNITY AGREEMENT (JUN 1996)  
I.111  DEAR 952.251-70 CONTRACTOR EMPLOYEE TRAVEL DISCOUNTS (JUN 1995)  
I.112  DEAR 970.5204-9 ACCOUNTS, RECORDS, AND INSPECTION (MAY 2000)  
I.113  DEAR 970.5204-31 INSURANCE - LITIGATION AND CLAIMS (JUN 1997)  
I.114  DEAR 970.5204-58 WORKPLACE SUBSTANCE ABUSE PROGRAMS AT DOE SITES (AUG 1992)  
I.115  DEAR 970.5227-11 -- PATENT RIGHTS--MANAGEMENT AND OPERATING CONTRACTS, FOR-PROFIT CONTRACTOR, NON-TECHNOLOGY TRANSFER (DEC 2000)  
I.116  DEAR 970.5204-77 WORKFORCE RESTRUCTURING UNDER SECTION 3161 OF THE NATIONAL DEFENSE AUTHORIZATION ACT FOR FISCAL YEAR 1993 (JUN 1997)  
I.117  DEAR 970.5204-78 LAWS, REGULATIONS, AND DOE DIRECTIVES (JUN 1997)  
I.118  DEAR 970.5204-79 ACCESS TO AND OWNERSHIP OF RECORDS (JUN 1997)  
I.119  DEAR 970.5227-1 -- RIGHTS IN DATA-FACILITIES (DEC 2000)  
I.120  52.223-10 WASTE REDUCTION PROGRAM.
(g) Relationship to patents. Nothing contained in this clause creates or is intended to imply a license to the Government in any patent or is intended to be construed as affecting the scope of any licenses or other rights otherwise granted to the Government under any patent.

(End of Clause)

I.120 FAR 52.223-10 WASTE REDUCTION PROGRAM.

As prescribed in 23.705, insert the following clause:

Waste Reduction Program (Aug 2000)

(a) Definitions. As used in this clause-

"Recycling" means the series of activities, including collection, separation, and processing, by which products or other materials are recovered from the solid waste stream for use in the form of raw materials in the manufacture of products other than fuel for producing heat or power by combustion.

"Waste prevention" means any change in the design, manufacturing, purchase, or use of materials or products (including packaging) to reduce their amount or toxicity before they are discarded. Waste prevention also refers to the reuse of products or materials.

"Waste reduction" means preventing or decreasing the amount of waste being generated through waste prevention, recycling, or purchasing recycled and environmentally preferable products.

(b) Consistent with the requirements of Section 701 of Executive Order 13101, the Contractor shall establish a program to promote cost-effective waste reduction in all operations and facilities covered by this contract. The Contractor's programs shall comply with applicable Federal, State, and local requirements, specifically including Section 6002 of the Resource Conservation and Recovery Act (42 U.S.C. 6962, et seq.) and implementing regulations (40 CFR part 247).

(End of clause)
### SECTION J – LIST OF ATTACHMENTS

#### ATTACHMENT E – LIST OF APPLICABLE DIRECTIVES (LIST B-DEAR 970.5204.78)

**(a)** Environmental, safety and health (ES&H) requirements appropriate for work conducted under this Contract that have been determined by a DOE approved process to evaluate the work and the associated hazards and identify an appropriately tailored set of standards, practices and controls:

<table>
<thead>
<tr>
<th>DOCUMENT NUMBER</th>
<th>DATE</th>
<th>TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>BNFL-5193-SRD-01</td>
<td>Latest Revision</td>
<td>Tank Waste Remediation System Privatization Project- Safety Requirements Document</td>
</tr>
<tr>
<td>DOE/RL-96-0003</td>
<td>02/01</td>
<td>DOE Regulatory Process for Radiological, Nuclear and Process Safety Regulation of the RPP Waste Treatment Plant Contractor</td>
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<td>DOE/RL-96-0004</td>
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<td>Process for Establishing a Set of Radiological, Nuclear and Process Safety Standards and Requirements for the RPP Waste Treatment Plant Contractor</td>
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<td>Concept of the DOE Regulatory Process for Radiological, Nuclear and Process Safety Regulation of the RPP Waste Treatment Plant Contractor</td>
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<td>Top-Level Radiological, Nuclear and Process Safety Standards and Principles for the RPP Waste Treatment Plant Contractor</td>
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<tr>
<td>RL/REG-97-04</td>
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<td>Policy for Openness and Openness Plan for the Office of Safety Regulation</td>
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<td>RL/REG-97-05</td>
<td>07/19/01</td>
<td>Regulatory Unit Management Directives</td>
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<td>RL/REG-97-13</td>
<td>12/08/03</td>
<td>Regulatory Unit Position on Contractor-Initiated Changes to the Authorization Basis Rev. 10</td>
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<td>RL/REG-98-05</td>
<td>07/01/99</td>
<td>Inspection Program Description for the Regulatory Oversight for the RPP-WTP Contractor</td>
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<td>RL/REG-98-06</td>
<td>06/30/99</td>
<td>Corrective Action/Enforcement Action Program Description</td>
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<td>RL/REG-98-14</td>
<td>06/29/98</td>
<td>Regulatory Unit Position on New Safety Information and Back-fits</td>
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<td>RL/REG 2000-03</td>
<td>05/04/01</td>
<td>Review Guidance for the Nonradiological Worker Safety and Health Plan</td>
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<tr>
<td>DOE O 470.2B</td>
<td>10/31/02</td>
<td>Contractor Requirements Document (CRD), &quot;Independent and Performance Assurance Program”</td>
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**(b)** Additional Directives applicable to this Contract. The directive(s) or applicable section(s) of the directive(s) are applied as specified in other Sections of this Contract:

<table>
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<tr>
<th>DOCUMENT NUMBER</th>
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<tr>
<td>DOE M 140.1-1B</td>
<td>03/30/01</td>
<td>Interface with Defense Nuclear Facilities Safety Board</td>
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<tr>
<td>DOE M 231.1-1A</td>
<td>03/19/04</td>
<td>Environment, Safety and Health Reporting Manual</td>
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<td>DOE N 471.3</td>
<td>04/13/01</td>
<td>Reporting Incidents of Security Concern</td>
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**SECTION J – LIST OF ATTACHMENTS**  
**ATTACHMENT F – KEY PERSONNEL**

<table>
<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>James P. Henschel</td>
<td>Project Director</td>
</tr>
<tr>
<td>Jimmy P. Betts</td>
<td>Project Manager</td>
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<tr>
<td>Alan K. Beckman</td>
<td>Deputy Project Manager</td>
</tr>
<tr>
<td>Phillip W. Schuetz</td>
<td>Area Project Manager, High-Level Waste</td>
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<tr>
<td>William T. Clements</td>
<td>Area Project Manager, Low-Activity Waste</td>
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<tr>
<td>Robert E. Lawrence</td>
<td>Area Project Manager, Pretreatment</td>
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<tr>
<td>Fred Beranek</td>
<td>E&amp;NS</td>
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<tr>
<td>George T. Shell</td>
<td>Quality Assurance</td>
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<tr>
<td>Stephen F. Piccolo</td>
<td>Deputy Project Director</td>
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<tr>
<td>Neil Brosee</td>
<td>Operations Manager</td>
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<tr>
<td>Richard J. Tossetti</td>
<td>Engineering Manager</td>
</tr>
<tr>
<td>C. Ed Rogers</td>
<td>Business/Project Controls Manager</td>
</tr>
<tr>
<td>Craig Albert</td>
<td>Manager of Functions</td>
</tr>
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</table>