

2. AMENDMENT/MODIFICATION NO. M047	3. EFFECTIVE DATE (M/D/Y) see block 16	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
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6. ISSUED BY U.S. Department of Energy Office of River Protection P. O. Box 450, MS H6-60 Richland, WA 99352	CODE	7. ADMINISTERED BY (If other than Item 6)	CODE
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8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP code) Bechtel National, Inc. 2435 Stevens Center Place Richland, WA 99352	<input type="checkbox"/>	9A. AMENDMENT OF SOLICITATION NO.
	<input type="checkbox"/>	9B. DATED (SEE ITEM 11)
	<input checked="" type="checkbox"/>	10A. MODIFICATION OF CONTRACT/ ORDER NO. DE-AC27-01RV14136
	<input checked="" type="checkbox"/>	10B. DATED (SEE ITEM 13) December 11, 2000

CODE	FACILITY CODE
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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 ACKNOWLEDGEMENT 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.

<input type="checkbox"/>	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.
<input type="checkbox"/>	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).
<input checked="" type="checkbox"/>	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)
<input type="checkbox"/>	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.)

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	16A NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Roy J. Schepens, Manager
15B. CONTRACTOR/OFFEROR ORIGINAL SIGNED _____ (Signature of person authorized to sign)	15C. DATE SIGNED 1/ 31/2005
16B. UNITED STATES OF AMERICA BY ORIGINAL SIGNED _____ (Signature of Contracting Officer)	16C. DATE SIGNED 2/03/2005

A. Purpose of the Modification

Miscellaneous changes to Section I and updates to DOE Orders contained in Section C and Section J.

Changes to Section C which reduce Facility Specifications related to: (1) "High Level Waste Canister Closure, Decontamination, and Inspection" and (2) "Low Activity Waste Container Closure, Decontamination, and Inspection."

Changes to Section C to account for DOE direction contained in letter no. 04-WED-019 dated May 18, 2004 subject: "Notification to Stop Using the Office of Environmental Management High Level Waste Product Acceptance Specification (1996) to Control Waste Treatment and Immobilization Plant Project Work Regarding the Immobilized High Level Waste Product."

B. Description of the Modification

The following changes are hereby incorporated into the contract:

1. Section I "Contract Clauses" is changed to incorporate the clause I.121 FAR 52.204-7 Contractor Registration (October 2003). This change also incorporates the following into the Table of Contents: "I.121 FAR 52.204-7 Contractor Registration (October 2003)".
2. Section I "Contract Clauses" Table of Contents is changed as follows: Delete the title of clause I.120 and replace with the following: "FAR 52.223-10 Waste Reduction Program (August 2000)".
3. Section I "Contract Clauses", Clause I.120 (page I-142) is changed as follows: Delete the title and replace with the following: "FAR 52.223-10 Waste Reduction Program (August 2000)".
4. Section J, "List of Attachments", Attachment E, is changed as follows: Insert DOE Order 142.3 into the table in section (b) as follows: "DOE O 142.3 6/18/04 Unclassified Foreign Visits and Assignments Program. The order is effective regardless of comment above at (b)."
5. Section J, "List of Attachments", Attachment E, section (b) table, is changed as follows: Delete "DOE O 414.1A 09/29/99" and replace with "DOE Order 414.1B 4/29/04."
6. Section C, "Statement of Work", Part C.6, Standard 7, paragraph (e)(3)(iv) is changed as follows:
 - a. Delete 414.1A and replace with 414.1B.
 - b. Add the following new sentences after the sentence ending with "414.1B": "The contractor shall maintain its Quality Assurance program in accordance with DOE O 414.1B. The contractor has the option to not incorporate the elements of ANSI/ISO/ASQ Q 9001-2000, *Quality Management System-Requirements (for non-*

- nuclear activities*), which is referenced in the Contractor Requirements Document of DOE O 414.1B.”
7. Section C, “Statement of Work”, Part C.7, Facility Specification, paragraph (d)(2)(iv) is changed as follows:
 - a. Delete: “These activities shall be conducted in accordance with Specification 1, *Immobilized High-Level Waste*. The HLW canister is sealed via welding and weighed. The canister is decontaminated using a chemical etching process that uses Ce (IV) as the chemical reagent. Following decontamination, the canister is checked for straightness and ovality. Temperature and gamma dose rate measurements will be taken on selected canisters.”
 - b. Replace with: “The HLW canister is sealed via welding. The canister is decontaminated using a chemical etching process that uses Ce (IV) as the chemical reagent.”
 8. Section C, “Statement of Work”, Part C.7, Facility Specification, paragraph (d)(3)(iv) is changed as follows:
 - a. Delete: “Container closure, decontamination, and inspection shall be conducted in accordance with Specification 2, *Immobilized Low-Activity Waste Product*. The ILAW Product container is sealed, decontaminated, and then the container is weighed and checked for dimensionality. The container is decontaminated using a solid carbon dioxide abrasion process. Temperature and gamma dose rate measurements will be taken on selected containers.”
 - b. Replace with: “The ILAW Product container is sealed and decontaminated. The container is decontaminated using a solid carbon dioxide abrasion process.”
 9. Section C, “Statement of Work”, Part C.6, Standard 2, paragraph (a)(3)(vii)(E) is changed as follows:
 - a. Delete: “After filling the canister with simulated IHLW glass and canister closure, the Contractor shall test the IHLW canister to demonstrate compliance with Waste Acceptance Product Specification (WAPS), Specification 2.4, Specification for Canister Length and Diameter, and 3.11, Specification for Weight and Overall Dimensions, as modified by IHLW Specification 1.2.2.1.3. Drop tests shall be conducted to demonstrate compliance with WAPS Specification 3.12, Drop Test Specification for IHLW.”
 - b. Replace with: “After filling the canister with simulated IHLW glass and canister closure, the Contractor shall test the IHLW canister to demonstrate compliance with the Waste Acceptance System Requirements Document (WASRD), Specification 4.8.3, *Dimensional Envelope for HLW Canisters*, and 4.8.4, *Filled HLW Canister Weights*. Drop tests shall be conducted to demonstrate compliance with WASRD Specification 4.8.8, *HLW Canister Drop*.”

10. Section C, "Statement of Work", Part C.6, Standard 5, paragraph (f)(4) is changed as follows: Add the following sentences to the end of the paragraph: "This may be demonstrated and documented prior to commencing cold commissioning. These tests must all be complete by the end of cold commissioning."
11. Section C, "Statement of Work", Part C.6, Standard 6, paragraph (c)(2) is changed as follows: Delete "and WAPS".
12. Section C, "Statement of Work", Part C.8, Specification 1, is changed as follows:
 - a. Paragraph 1.2.1.3 is changed by replacing the paragraph with the following:

"WASRD. DOE/RW-0351. Rev. 4. January 2002. Waste Acceptance System Requirements Document (WASRD). U.S. Department of Energy, Office of Civilian Radioactive Waste Management, Washington, D.C."
 - b. Paragraph 1.2.1.4 is changed by replacing the paragraph with the following:

"Deleted."
 - c. Paragraph 1.2.2.1.1 is changed as follows:
 - i. Delete: "The IHLW product shall meet the requirements in the WASRD, WAPS, and QARD. The WASRD is the senior requirements document and defines the minimum set of requirements and associated limits for acceptance of the IHLW product in the proposed geologic repository. The WAPS establishes the minimum set of product requirements for the IHLW product. The QARD establishes the minimum QA requirements for the IHLW product."
 - ii. Replace with: "The IHLW product shall meet the requirements in the WASRD and QARD. The WASRD is the senior requirements document and defines the minimum set of requirements and associated limits for acceptance of the IHLW product in the proposed geologic repository. WAPS section 5.0 and MOA Part 1 Section C shall be utilized in satisfying WASRD 5.4.1, Part A "Prior to the Start of Production". The QARD establishes the minimum QA requirements for the IHLW product."
 - d. Paragraph 1.2.2.1.3 is changed as follows:
 - i. Delete: "Exception to WASRD: The WASRD Specification 4.2.3.1, *Specific Acceptance Criteria for High-Level Waste*, shall form a 4.5-meter long canister system and shall be modified as follows:
 1. Fill height shall be equivalent to at least 87% of the volume of the empty canister. The average fill height over all the canisters shall be at least 95% of the volume of the empty canister.
 2. Maximum heat generation rate for any single canister shall not exceed 1500 watts per canister when delivered to DOE."

- ii. Replace with:
 1. “Fill Height: Fill height shall be equivalent to at least 87% of the volume of the empty canister. The average fill height over all the canisters shall be at least 95% of the volume of the empty canister.”
 2. “Maximum Heat Generation Rate: The maximum heat generation rate for any single canister shall not exceed 1500 watts per canister when delivered to DOE.”
 3. “Surface Contamination Limitations: Removable contamination on the external surfaces of the package shall not exceed 3,670 Bq/m² for alpha and 36,700 Bq/m² for beta-gamma.”
13. 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.