
TRANSURANIC WASTE PROCESSING CENTER
CONTRACT NUMBER DE-EM000323



DECEMBER 1, 2009

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SECTION B - SUPPLIES OR SERVICES AND PRICES/COSTS

B.1 ORO B01 Items Being Acquired (APR 1984)

The Contractor shall furnish all personnel, facilities, equipment, material, supplies, and services (except as may be expressly set forth in this contract as furnished by the Government) and otherwise do all things necessary for, or incident to, the performance and providing the following items of work:

Item 1 - See Section C, "Performance Work Statement." A portion of the scope of work will be performed under the American Recovery and Reinvestment Act of 2009, as described in Section C.

Item 2 - Reports are in accordance with Section J, Attachment A, "Reporting Requirements" and other clauses in the contract which specify reporting requirements, including those required by the American Recovery and Reinvestment Act of 2009, Pub. L 1115.

The detailed description of the work is contained in Section C and Section J, Attachment A of the contract.

B.2 Transition and Base Period of Performance - Estimated Baseline Cost, Estimated Recovery Cost, Base Fee, and Award Fee (JUL 2007)

- (a) The contract period of performance shall include a non-fee bearing transition period not to exceed sixty days from December 12, 2009, through January 16, 2010, and a fee bearing performance period from January 17, 2010, through January 16, 2013.
- (b) Transition Period 35 days (up to 60 days)

The estimated cost of transition activities is \$373,236

*No fee will be payable for the transition period of performance and recovery funds cannot be expended during the transition period

- (c) Base Period of Performance

Year One (ARRA Funding)	
Estimated Contract Cost (Fee Bearing)	
Base Fee	
Available Award Fee	
Total Contract Price	
<i>The total fee percentage (award and base fee) shall not exceed 6 percent of the total estimated fee bearing cost. The base fee shall not exceed 2 percent of the total estimated fee bearing costs.</i>	
Projected Cost Variance (Non-fee Bearing)	
Budget at Completion	\$ 86,155,574

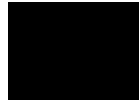
Year Two (ARRA Funding)	
Estimated Contract Cost (Fee Bearing)	
Base Fee	
Available Award Fee	
Total Contract Price	
<i>The total fee percentage (award and base fee) shall not exceed 6 percent of the total estimated fee bearing cost. The base fee shall not exceed 2 percent of the total estimated fee bearing costs.</i>	
Projected Cost Variance (Non-fee Bearing)	
Budget at Completion	\$ 78,603,933

Year Three (ARRA Funding)	
Estimated Contract Cost (Fee Bearing)	
Base Fee	
Available Award Fee	
Total Contract Price	
<i>The total fee percentage (award and base fee) shall not exceed 6 percent of the total estimated fee bearing cost. The base fee shall not exceed 2 percent of the total estimated fee bearing costs.</i>	
Projected Cost Variance (Non-fee Bearing)	
Budget at Completion	\$ 38,464,137

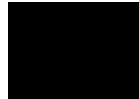
- (d) A base fee is payable over each of the evaluation periods in accordance with the clause in Section B entitled "Payment of Base Fee and Award Fee." An award fee will be payable after evaluations at the conclusion of each specified evaluation period in accordance with clause in Section B entitled, "Payment of Base Fee and Award Fee." The maximum fee available for each period of the contract is as follows:

Evaluation Period

1. Year One
 Base Fee
 Total Available Award Fee
 TOTAL FEE



2. Year Two
 Base Fee
 Total Available Award Fee
 TOTAL FEE



3. Year Three
 Base Fee
 Total Available Award Fee
 TOTAL FEE



Total Contract Period Estimated Cost,
 Base Fee and Award Fee **\$177,780,742**

B.3 Option to Extend Contract - Estimated Cost, Base Fee, and Award Fee (JUL 2007)

- (a) In order to demonstrate the value it places on quality performance, the Department has provided a mechanism for continuing a contractual relationship with a successful contractor that performs at a level which meets or exceeds quality performance expectations as communicated to the Contractor, in writing, by the Contracting Officer or designated representative in accordance with FAR 17.207. When deciding whether to exercise the 2-year option, the Contracting Officer will consider the quality of the Contractor's performance under the contract.
- (b) This contract shall be extended for 2 years at the unilateral option of the Government in accordance with the clause in Section I, FAR 52.217-9, entitled "Option to Extend the Term of the Contract." The Contractor agrees that the performance under the 2-year option period exercised shall be accomplished within the following estimated cost, base fee and award fee.

Option Year One (Program Base Funding)	
Estimated Contract Cost (Fee Bearing)	
Base Fee	
Available Award Fee	
Total Contract Price	
<i>The total fee percentage (award and base fee) shall not exceed 6 percent of the total estimated fee bearing cost. The base fee shall not exceed 2 percent of the total estimated fee bearing costs.</i>	
Projected Cost Variance (Non-fee Bearing)	
Budget at Completion	\$ 42,453,956

Option Year Two (Program Base Funding)	
Estimated Contract Cost (Fee Bearing)	
Base Fee	
Available Award Fee	
Total Contract Price	
<i>The total fee percentage (award and base fee) shall not exceed 6 percent of the total estimated fee bearing cost. The base fee shall not exceed 2 percent of the total estimated fee bearing costs.</i>	
Projected Cost Variance (Non-fee Bearing)	
Budget at Completion	\$ 27,025,833

- (c) A base fee is payable over each of the evaluation periods in accordance with the clause in Section B entitled "Payment of Base Fee and Award Fee." An award fee will be payable after evaluations at the conclusion of each specified evaluation period in accordance with clause in Section B entitled, "Payment of Base Fee and Award Fee."

B.4 Obligation of Funds (CPAF) (AUG 2007)

Pursuant to the clause in Section I, FAR 52.232-22 entitled "Limitation of Funds," total funds in the amount of \$5,265,808.33 are obligated herein and made available for payment of allowable costs and fee earned from December 12, 2009, through the period of performance contained in Section F.

Pursuant to the clause in Section I, FAR 52.232-22 entitled "Limitation of Funds" total funds in the amount of \$117,363,241.00 are obligated herein and made available for payment of allowable costs and fee earned related only to the Recovery Act work from January 17, 2010 through the period of performance for the Recovery Act work, contained in Section F."

B.5 Determination of Award Fee Earned (JUL 2007)

- (a) There shall be no annual negotiation of total available award fee since the total available award fee for the base period and option periods of the contract have been established. There shall be no adjustment in the amount of total available award fee by reason of differences between any estimate of cost for performance of the work under this contract and the actual costs for performance of that work. Total available award fee is subject to adjustment only under the provisions of the clause in Section I, FAR 52.243-2 entitled "Changes-Cost Reimbursement, Alternate II." The total available award fee shall be applicable to the prime Contractor and its members in a joint venture or teaming arrangement and any major subcontractors. A major subcontractor is defined as any subcontractor performing 20% or more of the proposed costs for the total contract requirements.
- (b) The Government shall, at the conclusion of each specified evaluation period, evaluate the Contractor's performance for a determination of award fee amount in accordance with the clause in Section B entitled "Performance Evaluation Plan." The determination as to the amount of award fee earned will be made by the Fee Determination Official (FDO). The Contractor agrees that such determination is a unilateral determination made by the FDO. The Contractor shall be promptly advised in writing of the determination and the basis for the amount of award fee earned.

B.6 Payment of Base Fee and Award Fee (JUL 2007)

- (a) Base Fee – The Government will make payment of the base fee in substantially equal monthly increments. The amount payable shall be subject to any withholding as may be provided for elsewhere in this contract.
- (b) Award Fee – The Government will promptly make payment of any award fee after evaluation at the conclusion of each specified evaluation period and a determination is made followed by a contractor invoice submission. Payment shall be made without the need for a contract modification. Award Fee not earned during the evaluation period shall not be allocated to future evaluation periods.

B.7 Performance Evaluation Plan

- (a) The determination of award fee earned shall be based upon a Performance Evaluation Plan (PEP) which includes the performance criteria in earning award fee. The PEP will be unilaterally established by the Government. A copy of the plan shall be provided to the Contractor prior to the beginning of the evaluation period.
- (b) The PEP will set forth the evaluation period and the criteria upon which the Contractor will be evaluated. The Contractor may submit a self-evaluation of performance for each evaluation period. While it is recognized that the basis for determination of the fee shall be the evaluation by the Government, the self-evaluation, which should be received 15 days after

the end of the period being evaluated, will be given consideration as the Fee Determination Official (FDO) finds appropriate.

- (c) The PEP may be revised unilaterally by the Government at any time during the period of performance. Notification of such changes shall be provided to the Contractor at least 30 days prior to the start of the evaluation period to which the change will apply.
- (d) The amount of award fee earned shall be based upon the Contractor's performance against the criteria established in the PEP.
- (e) While it is recognized that the basis for determination of the fee shall be the evaluation by the Government in accordance with this clause and the PEP, the FDO may also consider information available to him or her which relates to the Contractor's performance of contract requirements, regardless of whether those requirements are specifically identified. To the extent the Contractor does not perform those requirements, the FDO may, at his/her sole discretion, determine the Contractor's overall performance to be unacceptable, and accordingly may withhold the entire award fee for the evaluation period.

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SECTION C - DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

C.1 Performance Work Statement

INTRODUCTION

The mission of the U.S. Department of Energy (DOE) – Oak Ridge Office (ORO) Environmental Management (EM) Program in Oak Ridge is to conduct cleanup programs to correct the legacies remaining from more than 50 years of energy research and weapons production. The program also includes an aggressive effort to manage currently-generated wastes. The management of the Reservation's approximately 3,375 cubic meters (m³) of remaining remote handled (RH), and contact-handled (CH) transuranic (TRU) waste debris and soils and RH sludge and supernate waste is one of the essential elements of this mission and is the objective of this contract.

The wastes to be managed include CH and RH-TRU waste currently in storage, or to be generated by ongoing activities, on the Oak Ridge Reservation (specifically Oak Ridge National Laboratory (ORNL)) and approximately 315 m³ of additional CH-TRU waste generated by Nuclear Fuel Services (NFS), located in Erwin, TN and when directed, waste from other DOE sites. Additionally, the Contractor will process and dispose of the low-level radioactive waste (LLW), mixed low-level radioactive waste (MLLW), and hazardous or industrial waste that result from CH and RH-TRU waste processing. The primary waste streams to be managed include:

- RH and CH transuranic containerized debris and soils wastes
- RH sludge and associated supernate
- LLW and MLLW resulting from the processing of TRU waste

(TRU waste contains alpha-emitting radionuclides with an atomic number greater than 92 and half-lives greater than 20 years, at concentrations greater than 100 nCi/g. CH-TRU wastes have a dose rate at the waste container surface of less than 200 millirad/hour (mR/h), while RH-TRU wastes have a dose rate at the container surface of 200 mR/h or higher. These wastes must be processed and packaged for compliant disposal in offsite radioactive waste repositories – Waste Isolation Pilot Plant (WIPP) for TRU wastes and the Nevada Test Site (NTS) or other DOE site for LLW and MLLW. In addition, the Contractor may choose to use other treatment and disposal facilities for LLW/MLLW treatment or disposal, and hazardous or industrial waste disposal, as necessary, including the use of commercial facilities. All waste disposal strategies must comply with DOE requirements specified in DOE M 435.1-1 and use of commercial facilities must be authorized by DOE using the required DOE order exemption process. LLW and MLLW wastes to be managed originate from the processing of the TRU waste inventory; i.e, wastes that were initially characterized as TRU wastes and, when fully characterized, are determined to not meet the criteria for TRU waste.

The following sections describe the specific work scopes to be accomplished under the contract. The Contractor is expected to optimize the integrated project schedule for safe, cost-effective execution of the planned work scope. Attachment C-1 provides a list of acronyms as used in this Performance Work Statement (PWS).

CONTRACTOR PERFORMANCE

During the transition period, the Contractor shall perform all activities necessary to assume full responsibility for the contract requirements. The Contractor shall coordinate its activities with DOE and the incumbent Contractor so as to accomplish these activities in a manner that will provide an effective transition of personnel and work activities while minimizing the cost and time for transition.

The Contractor shall furnish all personnel, facilities, equipment, material, services and supplies (except as set forth in this contract to be furnished by the Government), and otherwise do all things necessary to accomplish work in a safe, compliant, effective and efficient manner. The Contractor is responsible for the operations, environment, safety, health and quality assurance within its own organization and its subcontractors.

The Contractor shall be responsible for planning, integrating, managing, and executing the programs, projects, operations, and other activities as described in this PWS in compliance with DOE requirements listed in Section J, and terms and conditions of this contract. All services shall be completed safely and in accordance with all applicable Federal, state, and local regulations, laws, and permits. The Contractor shall provide all deliverables required by Section J, Attachment A and other requirements identified in other sections of the contract. The Contractor shall develop, implement and maintain a comprehensive, resource-loaded integrated Contractor and Federal baseline plan as required in Section H clause, Project Management Systems and Reporting Requirements.

The entire legacy inventory of CH and RH debris shall be processed for disposition by September 30, 2011 for CH debris, and by May 31, 2011 for RH debris. A portion of the work scope described in this PWS shall be performed using funds obligated under the American Recovery and Reinvestment Act of 2009, Pub. L 1115 (Recovery Act) and as such is subject to special statutory conditions. Separate financial appropriations have been allocated to DOE-ORO for Recovery Act scope. Specific milestones and performance measures will be used to assess performance of the work. In accordance with Recovery Act implementation rules, the Contractor is required to manage and report progress for this work separately from the normal baseline performance. Performance against the project operating baseline for Recovery Act scope will be separately measured and reported, and accounting practices for this scope will also be separately maintained. The Contractor is required to consider the Recovery Act scope as defined in the latest revision of the Project Operating Plan (POP) during the transition period when developing the new project baseline.

The Contractor shall manage the DOE Transuranic Waste Processing Center (TWPC) to enable the processing of TRU waste, LLW, MLLW and any other resulting waste types, for disposal. As necessary, the contractor will integrate with the Central Characterization Project (CCP), a contractor managed by the DOE-Carlsbad Field office's (CBFO), for characterization, certification and shipment of TRU waste for disposal at WIPP. The TWPC was designed and constructed to process this debris and soils (and any liquids contained there-in) waste to meet disposal site waste acceptance criteria (WAC). Design and construction of the sludge mobilization and processing systems is not yet complete. The TWPC is operational and is currently processing CH and RH TRU debris and soils. Completion and installation of the sludge mobilization and processing systems is a part of the scope of this contract. Sludge buildout and readiness activities shall be initiated to support actual sludge processing no later than June 2013. The waste to be processed was generated primarily at ORNL from laboratory operations and cleanup programs. The waste to be processed also includes waste generated at NFS planned for delivery to TWPC in calendar years 2010, 2011, and 2012. Processing of NFS waste by TWPC includes receipt, storage, certification, and shipping support. In addition, DOE may also require processing of other TRU waste or LLW originating from other sites. If TRU waste from other sites is identified and is designated by DOE to come to the TWPC for processing, the Contractor, working with CCP, shall interface with other DOE contractors and sites as necessary for shipment and delivery of waste to the TWPC and for transport of the waste to WIPP or another appropriate disposal site.

CCP conducts TRU waste characterization and certification role at several TRU waste facilities across the DOE complex. DOE-CBFO has a contract with CCP to perform this service across the DOE complex. CCP therefore is the TRU waste certification authority for all TRU waste being shipped from the TWPC to WIPP. CCP also has responsibilities for coordination, scheduling and shipping of all TRU waste shipments to WIPP. The Contractor and CCP will work together to complete the processing and disposal of CH and RH TRU waste.

The Contractor shall transport to a treatment and/or disposal site LLW, MLLW, and hazardous or industrial waste identified or generated during TRU waste processing. The Contractor shall provide support to the CCP for transportation of TRU waste to WIPP. The Contractor shall also work directly with the other organizations as needed to meet waste processing needs. DOE-ORO will review and approve any commercial treatment or disposal requests from the Contractor.

The Contractor shall interface with DOE-ORO, DOE-CBFO, other DOE contractors including CCP, waste generators (primarily the ORNL and EM contractors), waste disposal facilities (primarily WIPP and NTS), regulatory agencies (primarily the Tennessee Department of Environment and Conservation (TDEC), the New Mexico Environment Department (NMED), and the Environmental Protection Agency (EPA)), and various public stakeholder groups.

It is also possible that the Contractor will interface with other DOE sites such as the Savannah River Site (SRS), Idaho National Laboratory (INL), Los Alamos National Laboratory (LANL), and Hanford Site, especially if DOE establishes the need to transfer TRU waste between these sites.

Access to classified documentation and secure facilities at the Federal Office Building and the Oak Ridge National Laboratory may be required to support interfaces with waste generating organizations and DOE to plan for characterization, processing and WIPP certification of TRU waste. These activities will require appropriate clearances to be held by a limited number of impacted employees. Clearances are also required for employees who have an emergency role which would require access to the ORNL Laboratory Shift Superintendent's Office.

WASTE MANAGEMENT AND DISPOSITION

C.1.1 Waste Storage, Processing and Disposal

Three ORNL waste streams are to be processed under this contract: CH-TRU debris and soils waste, RH-TRU debris and soils waste, and RH sludge and supernate. Approximately 800 m³ of legacy CH-TRU debris and soils waste, 575 m³ of legacy RH-TRU debris and soils waste, 2,000 m³ of incoming RH sludge and supernate waste will be available for processing. After the legacy waste inventory quantities are processed newly generated (NG) waste at the rate of approximately 15 m³ of CH-TRU and 5 m³ of RH-TRU per year will continue to require processing at the TWPC. Additionally, approximately 315 m³ of CH-TRU waste generated by NFS will require support for CCP certification including receipt, storage, NDA, NDE, and shipment.

The Contractor shall perform at a minimum the following tasks to complete waste processing operations.

C.1.1.1 CH-TRU Debris and Soils Waste

Background

CH-TRU debris and soils waste consists of a heterogeneous mixture primarily consisting of glass, plastic, tubing, filters and filter housings, pumps, protective clothing, metal cans/drums, gloveboxes, other boxes and tanks, cloth and other miscellaneous items, such as wood, carbon, cloth wipes, and sample bottles. In addition, some of the waste containers may contain: soils or other homogenous wastes, and other items requiring substantial size reduction (including components made of stainless steel, hastelloy, zircalloy, etc) associated with glove box operations, laboratory operations, hot cell clean-up operations, equipment repair and maintenance, sources, and radiochemical processing for isotope separation and purification are expected to be present. In addition, some waste containers may contain free liquids, hazardous material such as mercury (primarily from light bulbs, thermometers and other lab waste), lead (primarily as shielding), oil/solvents (i.e., cleaning rags) and significant quantities of groundwater. Some large components, including glove boxes, may contain contaminated surfaces that have been painted over or "fixed" with other materials limiting methods of characterization. Based on process knowledge of Laboratory waste generation practices, greater than 95% of the CH inventory contains inner heat-sealed bags requiring remediation to meet WIPP requirements. Some waste managed within the TRU inventory may not contain transuranic nuclides. These wastes must be verified and dispositioned as LLW or MLLW. These wastes may contain special nuclear materials. The CH waste is primarily contained in boxes and drums, however, other containers, such as HICs (high integrity containers), are also possible. The drums primarily range in size from 55 to 110 gals with a few smaller drums possible. The boxes range in size up to approximately 10 ft x 8ft x 6 ft and may weigh as much as 20,000 pounds. Although most of the waste containers currently classified as CH have dose rates well below 200 mR/h, there are a few that may have contact dose readings that exceed 200 mR/h. Many drums that had been managed as CH TRU have been reclassified as RH TRU due to their external doses exceeding 200 mRem/hr. It is possible that additional CH waste may result from the reclassification of debris and soils wastes that are currently classified and managed as RH-TRU. As waste is processed, it is expected that a considerable fraction, possibly as much as 40% or more, of the CH-TRU waste will be determined to be MLLW (30%) and LLW (10%) after assay is complete.

Requirements

The Contractor shall:

1. Finalize DVB/DVS modifications, complete readiness activities including CORR and DORR, and initiate hot operations by June 30, 2010.
2. Provide support as necessary to CCP during the venting and sampling of over packed CH-TRU waste containers or perform these activities if CCP is absent from the project.
 - a. Implement modified DVS remote operations in accordance with applicable DSA/TSR and revised operations procedures

3. Develop methods to vent CH TRU drums \geq 110 gallons”
4. Receive, treat, and coordinate processing of CH-TRU debris and soils waste in preparation for certification for disposal at WIPP. This scope includes repackaging, treatment, and any other actions necessary to prepare the waste for compliant shipment and disposal.
5. Integrate with and support CCP in the characterization and certification of the CH-TRU waste for disposal at the WIPP.
 - a. Drums failing NDE for impenetrable items must be processed using CCP CH VE.
 - b. During CH VE, all inner containers must be opened
6. Procure and use WIPP-approved containers (e.g. 55 gal drums) for packaging and disposal of TRU waste.
7. Prepare and maintain all required procedures, work plans, etc. for processing CH-TRU debris and soils waste.
8. Assist CCP or other DOE contractors with TRUPACT II loading and vehicle loading for shipment to WIPP.
9. Segregate LLW and MLLW from TRU waste based on CCP AK and/or TWPC PK and assay and manage in accordance with C.1.1.4 and C.1.1.5.
10. Segregate hazardous and industrial waste from TRU waste and manage in accordance with C.1.1.6.
11. Store waste:
 - a. awaiting processing
 - b. awaiting final CCP certification activities (AK completion, NDA/NDE, visual examination, matrix specific/Tier 1 EPA approvals, waste stream profiles, shipment build sheets, confirmed shipping schedule)
 - c. based on CCP certification, AK development schedules, and shipping schedules, CH storage support is required through March 2013
 - i. CBFO/CCP AK completion schedule requires CH certification/shipping campaigns beyond FY2011
12. When directed, transfer waste back to the DOE waste storage contractor until shipping can be arranged by DOE.
13. Support shipments of waste in accordance with CBFO directed shipping schedule.”
14. Serve as the Shipper of Record for all CH-TRU waste shipped for disposal.
15. In the event of CCP’s absence from the site, the contractor shall manage and operate all equipment to process CH TRU waste to support segregation of TRU waste from MLLW/LLW populations within the inventory, in order to prepare for efficient final certification of the TRU waste by CCP.

- a. Waste determined to be TRU waste will be stored by the contractor or returned to approved storage areas operated by others as agreed by DOE, until CCP returns for final characterization or certification of TRU waste to WIPP.
- b. Waste determined to be MLLW/LLW will be fully characterized, treated and disposed by the contractor.

C.1.1.2 RH-TRU Debris and Soils Waste

Background

RH-TRU debris and soils waste consists of similar materials as the CH-TRU debris and soils waste. RH-TRU debris and soils waste consists of a heterogeneous mixture primarily consisting of glass, plastic, tubing, filters and filter housings, pumps, protective clothing, metal cans/drums, gloveboxes, other boxes and tanks, cloth and other miscellaneous items, such as wood, carbon, cloth wipes, and sample bottles and metals including large items requiring substantial size reduction (including large components made of stainless steel, hastelloy, zircalloy, etc.). In addition, some of the waste containers may contain: soils or other homogenous wastes, other items associated with glove box operations, laboratory operations, hot cell clean-up operations, equipment repair and maintenance, sources, and radiochemical processing for isotope separation and purification are expected to be present. In addition, some waste containers may contain free liquids, hazardous material such as mercury (primarily from light bulbs, thermometers and other lab waste), lead (primarily as shielding), oil/solvents (i.e., cleaning rags) and significant quantities of groundwater (up to 150 casks with groundwater volumes ranging up to 300 gallons) requiring collection and disposal. Additionally, free liquids must be eliminated from the wetted waste matrix. A major portion of this waste is in small containers which have been loaded into concrete casks for shielding with the remainder in drums or boxes (approximately 250). The casks are of three basic types. Each cask type has a different wall thickness to provide varying amounts of radiation shielding. The outer dimensions of the three casks range from approximately 7 to 8 ½ feet tall and approximately 50 to 55 inches in diameter. Approximately 200 of these casks have recently been exhumed from the Solid Waste Storage Area 5 North (SWSA 5N). Of the 200 retrieved casks the two with the highest contact dose rates read 400 and 500 mR/hr maximum. The rest of the casks had a reading less than 400 mR/hr with the majority of the exhumed casks having contact dose rates significantly below 100 mR/hr. In addition, some of the most recently generated RH waste (approximately 30 casks) may contain significant quantities of neutron generating radionuclides that will require additional size reduction for packaging into 30 or 15 gallon product waste drums to enable it to be shipped to WIPP in neutron shielded canisters. It is expected that a considerable fraction, possibly as much as 50%, of the waste that has been managed as RH-TRU will actually be CH-TRU, with the exception that 100% of the NG waste in years three through five is expected to be RH-TRU.

Prior to delivery of the concrete casks to the TWPC they must be loaded into steel overpacks. These overpacks are designed to mate with existing TWPC equipment for transferring RH debris and soils waste into the TWPC hot cell. The casks retrieved from SWSA 5N have already been loaded into overpacks. Overpacks required for the remaining non-overpacked casks will be provided by

the Contractor. Loading the casks into overpacks will be performed by another DOE contractor.

Requirements

The Contractor shall:

- 1) Receive, treat and coordinate processing of RH-TRU debris and soils waste in preparation for certification for disposal at WIPP. This scope includes repackaging, treatment, and any other actions necessary to prepare the waste for compliant shipment and disposal, including:
 - a. Casks containing groundwater
 - i. Remove, collect, sample and analyze groundwater to establish basis for disposition path
 - ii. Treat and dispose of groundwater
 - iii. Add adsorption media and dry waste matrix to eliminate liquids
 - b. Casks containing high neutron activity
 - i. Size reduce high neutron bearing waste and package into waste drums (15 – 30 gallon) to fit neutron shielded 72B canister
 - c. Casks containing oversized, heavy, and/or difficult to size reduce items.
- 2) Integrate with and support CCP in the characterization and certification of the RH-TRU waste for disposal at WIPP.
 - a) Frequency of flammable gas analysis of RH drums will vary and be determined by CCP on a waste stream specific basis
 - b) CCP dose-to-curie determinations of RH waste drums must be confirmed by TWPC filed dose measurements.
- 3) Prepare and maintain all required procedures, work plans, etc. processing of RH-TRU debris and soils waste.
- 4) Procure and use WIPP-approved containers (e.g. RH-TRU waste canisters and 55 gal drums) for packaging and disposal of TRU waste.
- 5) Provide steel overpacks and spacers as necessary for RH-TRU waste concrete casks.
- 6) Coordinate with the CCP, as necessary, for shipment of waste to WIPP.
- 7) Assist CCP or other DOE contractors in loading of processed RH-TRU waste into transport container and vehicle for shipment to WIPP.
- 8) Segregate CH-TRU waste from RH-TRU waste and manage in accordance with C.1.1.1.
- 9) Segregate LLW and MLLW from TRU waste based on CCP AK and/or TWPC PK and assay and manage in accordance with C.1.1.4 and C.1.1.5.
- 10) Segregate hazardous and industrial waste from TRU waste and manage in accordance with C.1.1.6.

- 11) Provide storage for:
 - a. RH TRU waste received for processing at TWPC
 - b. RH TRU waste processed (TWPC RH canister storage)

- 12) Serve as the Shipper of Record for all RH-TRU waste shipped for disposal.

- 13) Support shipments of waste in accordance with CBFO directed shipping schedule.

- 14) In the event of CCP's absence from the site, manage and operate all equipment to process the RH TRU waste inventory to support segregation of RH/CH/MLLW/LLW populations within the inventory in order to prepare for efficient final certification of the TRU waste by CCP upon their return.
 - a) Waste determined to be RH or CH TRU waste will be stored by TWPC or other DOE contractors, as necessary, until CCP returns for final characterization, certification and shipment of the TRU waste to WIPP.
 - b) Waste determined to be MLLW or LLW will be fully characterized, certified, treated and shipped for disposal by the contractor.

C.1.1.3 RH Sludge Waste

Background

Approximately 2,000 m³ of RH waste sludge and supernate will require processing at the TWPC. This includes wastes expected to be generated by on-going operations at the ORNL. The supernate may be used to mobilize the sludge for transfer to the TWPC. Water may also be used to mobilize the sludge, but the available supernate must be completely expended by the end of sludge processing. The sludge is contained in stainless steel tanks located in Bethel Valley and Melton Valley at ORNL. Approximately 900 m³ of sludge is currently in the eight stainless steel 50,000 gallon tanks in Building 7830, the Melton Valley Storage Tanks (MVST). Tank W-35 in the Melton Valley Storage Tanks-Capacity Increase Project (MVST-CI) contains approximately 100 m³ of sludge. The remaining sludge and supernate volume resides in other tanks or is yet to be generated. This additional sludge and supernate will be transferred by another DOE contractor to an available MVST tank or to tank W-35 as requested by the TWPC Contractor. Building 7830 and surrounding area will be assigned to the Contractor for the duration required to completely mobilize, transfer and process the RH sludge. Tank W-35 can be used as a batch mixing tank, but will require the support of the Liquid and Gaseous Waste Operations (LGWO) contractor.

The sludge is alkaline with pH ranges of approximately 7.0 to 13.0. The sludge contains heavy metals identified under RCRA as hazardous, including cadmium, chromium, lead, and mercury. Prior to the initiation of a previous supernate processing campaign, it was determined that the supernate when dried would be an oxidizer as defined by RCRA regulations. To remove the oxidizing nature of the dried supernate product, anhydrous sodium metasilicate was added to the process. Using the modified process the supernate was processed in 2004 and

produced a dry, non-RCRA-regulated final waste form. Additional supernate remained to be processed plus supernate continues to be generated by ORNL facilities and stored for subsequent processing. Since the MVSTs are part of the ORNL low-level wastewater system, they are presently exempted from RCRA permitting under the ORNL Permit by Rule application. The TWPC will be configured to process the sludge by solidification. Prior to processing, the sludge contains enough transuranic isotopes to be classified as TRU waste. Treatability studies indicate that a solidification process, which incorporates the use of additives, such as Portland cement, fly ash, and blast furnace slag, can result in a LLW final product that may be acceptable for disposal at NTS. Any sludge waste that remains TRU after solidification will require disposal at WIPP.

Requirements

The Contractor shall:

1. Conduct the design, procurement, installation, testing, cold mock-up demonstrations, and startup including operational readiness reviews required for hot operations of the RH sludge and supernate processing and mobilization systems. Demonstrate using representative surrogate material that the systems will function as needed to mobilize and process RH sludge and supernate as required for disposal. The components of the TWPC Supernate System required to support and complete sludge processing shall be restarted and shall be a part of this demonstration.
2. Take operational and maintenance responsibility of the MVST facilities, including all safety basis documentation and regulatory permits and agreements in time to support the installation and testing of the sludge and supernate mobilization system and for the duration while the facilities are being used for processing.
3. Mobilize and transfer sludge and supernate residing in the MVSTs to either W-35 of the MVST-CI facility (if W-35 is to be used as a batch mixing tank) or to the TWPC. The Contractor will interface with the EM ORNL LGWO contractor to operate the MVST-CI facility and its existing equipment to mix and transfer the slurried sludge and supernate to the Contractor designated tanks.
4. Track inventories of waste sludge and supernate in each tank during processing as required to measure progress.
5. Retrieve and process for disposal the sludge and supernate contained in each tank leaving no more than 500 gallons of sludge in any one tank including tank W-35, if it is used as a mix tank.
6. Obtain final waste form certification from NTS or other utilized disposal sites. For sludge that remains TRU, work with and support CCP in characterizing and certifying the waste for shipment to WIPP.
7. Prepare all required procedures, work plans, waste shipping forecasts, etc., for processing.

8. Process and treat the waste as required to meet disposal site WAC and RCRA Land Disposal Requirements (LDR) as applicable.
9. Procure disposal site approved containers appropriate for transport and disposal of the final waste form.
10. Process sludge and supernate and transfer into appropriate containers for disposal. This scope includes conducting analysis as required, processing, treatment, and any other actions necessary to prepare the waste for compliant disposal.
11. Provide interim storage for waste ready-for-disposal until shipping can be arranged.
12. Coordinate with the disposal site and serve as the Shipper of Record for all treated RH sludge waste shipped for disposal.
13. Load and transport the treated LLW RH sludge waste for disposal.
14. Dispose of the LLW.

C.1.1.4 LLW

For LLW resulting from TRU waste processing operations, e.g. emptied RH TRU waste concrete casks (approximately 360), secondary waste, bulk water from waste containers, and any LLW which DOE has deemed appropriate to process at the TWPC, the Contactor shall:

1. Prepare waste profiles as required and obtain NTS or other disposal site approval.
2. Obtain final waste form certification from NTS or other utilized disposal sites.
3. Prepare all required procedures, work plans, waste shipping forecasts, etc., for processing LLW.
4. Process and treat the waste as required to meet disposal site WAC as applicable.
5. Procure LLW disposal site approved disposal containers for the waste.
6. Coordinate with the disposal sites and be the Shipper of Record for all waste being shipped to disposal sites.
7. Prepare the waste for transport to the disposal facility.
8. Provide interim storage for waste ready-for-disposal until shipping can be arranged by the Contractor.
9. Load and transport LLW for disposal.
10. Dispose of the waste.

11. Prepare exemption requests for use of commercial disposal facilities, if commercial treatment and/or disposal options are being considered.

C.1.1.5 MLLW

For MLLW resulting from TRU waste processing operations, e.g., emptied RH TRU waste concrete casks, secondary waste, bulk water from waste containers, and any MLLW which DOE has deemed appropriate to process at the TWPC, the Contactor shall:

1. Prepare waste profiles as required and obtain NTS or other disposal site approval.
2. Obtain final waste form certification from NTS or other utilized disposal sites.
3. Prepare all required procedures, work plans, waste shipping forecasts, etc. for processing MLLW.
4. Process and treat the waste as required to meet disposal site WAC and RCRA Land Disposal Requirements (LDR) as applicable.
5. Procure MLLW disposal site approved disposal containers for the waste.
6. Coordinate with the treatment and/or disposal sites and be the Shipper of Record for all waste being shipped to treatment and/or disposal sites.
7. Prepare the waste for transport to the treatment and/or disposal facility.
8. Provide interim storage for waste ready-for-disposal until shipping can be arranged by the Contractor.
9. Load and transport MLLW for treatment and/or disposal.
10. Dispose of the waste.
11. Prepare exemption requests for use of commercial disposal facilities, if commercial treatment and/or disposal options are being considered.

C.1.1.6 Hazardous and Industrial Waste

For hazardous and industrial waste resulting from TRU waste processing operations, the Contactor shall:

1. Prepare waste profiles as required and obtain disposal site approval.
2. Obtain final waste form certification from disposal sites.
3. Prepare all required procedures, work plans, etc., for processing hazardous and industrial waste.

4. Process and treat the waste as required to meet disposal site WAC and RCRA LDR as applicable.
5. Procure disposal site approved disposal containers for the waste.
6. Coordinate with the disposal sites and be the Shipper of Record for all waste being shipped to disposal sites.
7. Prepare the waste for transport to the disposal facility.
8. Provide interim storage for waste ready-for-disposal until shipping can be arranged by the Contractor.
9. Load and transport hazardous and industrial waste for disposal.
10. Dispose of the waste.

“C.1.2 Site Infrastructure Improvements

C.1.2.1 Material Stores and Transportation Support Expansion

The Contractor shall:

1. Construct the Multipurpose Building to be used for additional mission support capability and for support to CH-TRU loading operations.

C.1.2.2 DVS Modifications

The Contractor shall:

1. Modify the existing DVS configuration to provide remote operations and monitoring capability and other modifications necessary to achieve hot operations as directed by DOE

C.1.2.3 RH Process Support Facilities and Equipment

The Contractor shall:

1. Source and purchase remote manipulators as needed to increase reliability/availability, capability, and productivity
2. Construct manipulator maintenance and storage building to support capability to:
 - a. Store and maintain remote manipulators
 - b. Store/stage TWPC master slave manipulators (MSM)

C.1.2.4 RH Hot Cell Maintenance Bay Overhead Crane

1. Replace the Hot Cell maintenance bay overhead crane to support Hot Cell shield plug removal for access and maintenance.

C.1.2.5 Cask Processing Enclosure (CPE):

The Contractor shall:

1. Construct a Cask Processing (CPE) facility to most efficiently process Remote Handled (RH) casks containing Contact Handled (CH) waste.

C.1.2.6 SWSA5 Fissile Waste Processing:

The Contractor shall:

2. Construct an additional process line capable of processing fissile plutonium waste (SWSA 5 Fissile Waste) to meet the transportation and disposal requirements at WIPP.

C.1.3 Project Management and Support

C.1.3.1 Facilities Operations and Maintenance

The Contractor shall:

1. Maintain in proper working condition all facilities including processing and storage buildings, roads, lighting, fencing, and grounds required at the TWPC. Maintenance of the fencing shall include control/removal of vegetation and trees that could reduce the fence's effectiveness against intrusion.
2. Maintain (including preventative maintenance) the buildings at the MVST when under the control of the Contractor.
3. Provide inventory controls for facilities equipment.
4. Provide radiological controls including surveys, postings, dosimetry, source controls, and bioassay materials and equipment.
5. Support audits, tours, and information requests from DOE and regulatory agencies.
6. Maintain office space for site operations including DOE personnel, and other DOE contractors (e.g. CCP).
7. Procure all equipment, systems, consumables, and services not provided by DOE or CCP
8. Maintain and administer the site-wide DOE Personal Property Management System

C.1.3.2 Environment, Safety, Health and Quality (ESH&Q)

The Contractor's ESH&Q program shall be operated as an integral, but visible, part of how the Contractor conducts business. The Contractor shall implement and maintain an ISM System to accomplish all work as required by DEAR 970.5223-1, "Integration of Environment, Safety and Health into Work Planning and Execution." DOE will review this system on an annual basis. The Contractor

shall adopt the existing DOE approved ISM System or submit for DOE's approval another ISM System within 60 days of contract award. The Contractor shall establish and maintain an effective quality assurance program in compliance with 10 CFR 830 Subpart A and DOE O 414.1C, Quality Assurance, or its latest version. The Contractor shall implement and maintain a Contractor Assurance System as required by DOE O 226.1 or its latest version.

The Contractor shall obtain and maintain all required environmental permits and comply with all regulatory requirements for the operation. These include permits required for compliance with RCRA, Clean Air Act, Clean Water Act, SARA, NEPA, etc. In addition, the Contractor shall ensure that waste management activities are in compliance with requirements found in DOE O 435.1 and DOE M 435.1-1.

The Contractor shall conduct all activities in accordance with applicable laws, regulations and the Directives listed in Section J, Attachment C. These activities include, but are not limited to, maintaining the following programs:

1. Integrated Safety Management System (ISMS)
2. Authorization Basis development, implementation, maintenance and oversight including Documented Safety Analyses (DSA), readiness activities, and Unreviewed Safety Question evaluations in compliance with 10 CFR 830 Subpart B
3. Criticality Safety Program
4. Nuclear Materials Control and Accountability (NMC&A) Program.
5. Hoisting and rigging.
6. Industrial safety and hygiene
7. Work control process and worker safety in compliance with 10 CFR 851
8. Site based training (e.g., OSHA, GET, Radworker)
9. Emergency management, preparedness and response in coordination with ORNL
10. Environmental controls, permitting and compliance
11. Conduct of operations
12. Design and engineering
13. Safety and health
14. Start-up, testing and readiness preparation, and demonstration activities
15. Readiness reviews

16. Radiological control program in compliance with 10 CFR 835
17. Site security program in compliance with 10 CFR 824 (physical site security is maintained by DOE-ORO security prime contractor)
18. Project Management Baseline and Earned Value Analyses
19. Configuration Management

C.1.3.3 Project Support

The Contractor shall develop and maintain a project management system and integrated Contractor and Federal baseline plan in accordance with DOE O 413.3A and Section H clause, Project Management Systems and Reporting Requirements. The Contractor may adopt the existing policies and procedures for baseline management, change control, project status and reporting, risk management, and accounting or submit for DOE approval another Project Management and/or accounting system at contract award. The Contractor shall maintain a separate project management structure, accounting structure, performance measures, and milestones for scope associated with the ARRA.

Maintain, implement and administer the site's information technology management needs, such as the site-wide cyber security program in accordance with the Under Secretary of Energy Program Cyber Security Plan (PCSP).

C.1.3.4 Engineering

The Contractor shall provide all engineering support required to perform this PWS. Engineering activities may include, but are not limited to engineering management, waste disposition engineering, facility engineering, system engineering, and project engineering.

C.1.3.5 CCP Support

While CCP is onsite and conducting TRU waste characterization, certification and shipping operations, the Contractor shall:

1. Develop the NMC&A Program and take custody of and manage Non-destructive assay (NDA) matrix sources. This includes providing the NDA Performance Demonstration Program (PDP) support needed to assemble test drums.
2. Provide facilities to house or place the characterization equipment.
3. Provide oversight of CCP waste characterization and certification activities as necessary to execute signature authority for hazardous waste manifest for waste shipments to WIPP (shipper of record).
4. Provide oversight of CCP waste characterization and certification activities as necessary to ensure compliance with TWPC authorization basis.

5. Interpret screening data received from CCP for authorization basis verification and LLW determinations.
6. Perform Visual Examination (VE) operations using CCP procedures with CCP oversight.
7. Perform sampling of TRU waste using CCP procedures with CCP oversight.
8. Procure goods and services in accordance with requirements of the CCP procurement program for certification and characterization related activities.
9. Assist in the development of information for Acceptable Knowledge (AK) compilation, revisions, reconciliations, updates, reporting, and classification review.

C.1.3.6 Interfaces

The Contractor shall interface with the following:

1. CBFO/WIPP for:
 - Procedure approval
 - Integration with CCP
 - Waste transportation to WIPP
 - Certification of TRU waste
 - Coordination and integration with the National TRU program
2. DOE and Contractors at regional LLW/MLLW Disposal Facilities, such as NNSA/NSO and NTS:
 - Maintenance of the Certification Program
 - Development of waste disposal profiles for LLW and MLLW
 - Characterization and Certification of LLW and MLLW
 - Shipment and disposal of LLW and MLLW
3. Other DOE Prime Contractors for:
 - Emergency response including fires, readiness, and notification
 - RCRA reporting
 - Stack emissions reporting
 - Management and collection of NG TRU waste
 - Transfer of CH and RH TRU debris and soil waste from storage facilities to the TWPC
 - Sludge management and transfer activities from other ORNL tanks to tanks managed by the Contractor
4. Regulatory Agencies and Stakeholders including:
 - TDEC
 - EPA
 - Citizens Advisory Board
 - Public
 - DNFSB
5. Other DOE Sites for:

- Consultation support for other DOE waste generators to ensure proper waste preparation and demonstration activities
- Integration activities as necessary for transfer of waste, samples, etc. to or from other sites
- DOE Office of Disposal Operations integration activities, e.g., annual waste forecasts, bi-weekly LLW and MLLW conference calls, and lessons learned

ATTACHMENT C-1 – ACRONYMS

AK	Acceptable Knowledge
Recovery Act	American Recovery and Reinvestment Act of 2009
CCP	Central Characterization Project
CH	Contact Handled
CBFO	Carlsbad Field Office
DNFSB	Defense Nuclear Facilities Safety Board
DOE	Department of Energy
DSA	Documented Safety Analysis
EM	Environmental Management
EPA	Environmental Protection Agency
GET	General Employee Training
INL	Idaho National Laboratory
LANL	Los Alamos National Laboratory
LLW	Low level waste
LDR	Land Disposal Requirements
LGWO	Liquid and Gaseous Waste Operations
MLLW	Mixed low level waste
mR/h	millirad per hour
MVST	Melton Valley Storage Tanks
MVST-CI	Melton Valley Storage Tanks – Capacity Increase Project
NDA	Non-destructive assay
NDE	Non-destructive examination
NEPA	National Environmental Protection Act
NG	Newly Generated
NMED	New Mexico Environmental Department
NMC&A	Nuclear Materials Control and Accountability
NSO	Nevada Site Office
NTS	Nevada Test Site
ORNL	Oak Ridge National Laboratory
OSHA	Occupational, Safety and Health Act
PDP	Performance Demonstration Program
POP	Project Operating Plan
PWS	Performance Work Statement
RCRA	Resource Conservation and Recovery Act
RH	Remote Handled
SARA	Superfund Amendment and Re-Authorization Act
SRS	Savannah River Site
supernate	supernatant
SWSA	Solid Waste Storage Area
TDEC	Tennessee Department of Environment and Conservation
TRU	Transuranic
TWPC	TRU Waste Processing Center in Oak Ridge, Tennessee
VE	Visual examination
WAC	Waste Acceptance Criteria
WIPP	Waste Isolation Pilot Plant in Carlsbad, New Mexico

NOTE: This text (next four pages) was inserted into the Statement of Work per Modification 026, but no specific section was designated.

Contract DE-EM0000323
Wastren Advantage, Inc.
Modification -026

- A. The purpose of this modification is to issue a change order addressing the following contents of the Statement of Work. This modification is being made under the authority of the contract clause contained in Section I, entitled "Changes" and by mutual agreement of the parties. The contractor is authorized to incur cost not-to-exceed \$50,000.00, consistent with the other contract terms and conditions and pending definitization of this change. No fee shall be paid to the contractor for work under this change, including provisional fee, prior to definitization.
- B. The Statement of Work is as follows:

U-233 Inventory Analysis

Introduction

Alternatives to the current approach of solidifying the downblended U-233 inventory in a new annex to Building 3019 are being evaluated. Some of these alternatives involve facilities and operations managed by Wastren Advantage, Incorporated (WAI). Accordingly, this SOW requests the contractor to: 1) perform scoping calculations utilizing the information provided in Attachment 1 and identify any impacts to current operations or physical structures; 2) provide alternatives to the proposed transfer scenario that will minimize impacts to operations or physical structures; 3) if impacts require physical modifications, provide a conceptual estimate and schedule for completing any necessary operational or physical modifications; and 4) estimate the increase in total monoliths requiring transport and disposal as LLW. This SOW encompasses specific inputs from the contractor for the following alternative:

- 1) Receipt of the downblended (DB) U-233 solution via the LGWO or by tanker truck directly from 3019A (managed by Isotek).

Both scenarios would result in the receipt of DB U-233 at the MVST (managed now by BJC, but later by WAI) for storage by WAI prior to co-processing to a stable form at the TWPC. WAI will subsequently transport the solidified waste forms to the NNSS site for disposal. WAI may co-mingle these U-233 wastes with other sludge and supernate wastes in their LLLW inventory.

Input Assumptions

For the alternative above and this SOW, WAI is to assume that Isotek and BJC transfer, individually or in total, approximately 59 batches of DB U-233 solution (described in the attached characterization sheet) of approximately 3000 liters size (plus flush) to tank W35 at MVSTA. These transfers will occur over an approximate one year period (assume during FY16).

Contract DE-EM0000323
Wastren Advantage, Inc.
Modification -026

If transfer is conducted via a tanker WAI is to assume receipt of approximately 39 batches of approximately 4500 liters to tank W35 at MVST. All transfers are assumed to occur over approximately one year (assume FY16).

WAI Deliverables

For the above alternatives, WAI is to provide the following:

- 1) Deliverables 1-4 (described above) for the transfer scenario described in this SOW and attachment.
- 2) Brief description of the preferred operational approach (if it differs from the scenario described in this report), including a description of the benefits of an alternative approach and any new risks or assumptions introduced. Compare and contrast the SOW approach to the WAI approach in at least the following areas:
 - Safety basis documents
 - Capital or other physical modifications needed to support approach
 - Environmental permits
 - Radcon program actions
 - Consistency with other programmatic missions in FY16
 - Impact to WAI's baseline solidification campaign, including projected cask needs, estimated number of shipments required, and estimated duration of solidification campaign extension.
 - Impact to WAI's waste certification program for NNSS
- 3) Conceptual estimate and schedule for completing operational and/or physical modifications associated with WAI's recommended transfer scenario.

Schedule

WAI is requested to provide the above deliverables by May 30, 2011.

Follow-on Scope

The following scope is not to be executed, but is only included for information. WAI may be requested to execute a second level (more refined) evaluation of the impacts of the above if necessary. This could include detailed operational descriptions, designs, and/or cost estimates.

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Wastren Advantage, Inc.
Modification -026

C. Modification Definitization

WAI agrees to begin promptly negotiating with the Contracting Officer the terms of a definitization modification for the work directed under this modification. WAI agrees to submit a proposal for the changes under this modification.

The schedule for definitizing this modification is as follows:

<u>Action</u>	<u>Date</u>
Contractor submits Proposal	24 June 2011
Commence negotiations	11 July 2011
Mutual agreement of definitization	26 July 2011
Execution definitizing contract modification	29 July 2011

SHEET DOW-F0314
MATERIAL BALANCE - DOWNBLENDING
OUO - Official Use Only

Type of Feed Material = High Purity U-233

Stream / Line Number		A	B	C	
Stream	Molecular Weight	Uranyl Nitrate from NMC&A Column	Depleted Uranyl Nitrate from DU Storage Tank	Down-Blended Uranyl Nitrate to Dryer	
Uranium Isotopic Breakdown and Chemical Form	U-232 - ppm U	232	20	0.1	
	U-233 - Percent of U	233	98.00%	0.475%	
	U-234 - Percent of U	234	0.00%	0.000%	
	U-235 - Percent of U	235	1.00%	0.20%	
	U-236 - Percent of U	236	0.00%	0.0%	
	U-238 - Percent of U	238	1.00%	99.80%	
	U total - Kg / Batch	237.97	3.10	631	
	U3O8 - Kg / Batch	841.50			
	UO3 - Kg / Batch	285.97			
	UO2(NO3)2 - Kg / Batch	383.98	5.17	1044	
	UF4 - Kg / Batch	313.96			
	U Metal - Kg / Batch	237.97			
	Bulk Chemicals	DI Water - Liters / Batch	18.01		
		Total Water - Kg / Batch	18.01	12.0	1270
Free Nitric Acid Molarity		63.01	2.0	0.29	
HNO3 - Kg / Batch		63.01	1.78	28.9	
NaOH - Kg / Batch		40.00			
Al(NO3)3 - Kg / Batch		212.99			
Gas-phase Details	N2 - Kg / Batch	28.01			
	O2 - Kg / Batch	32.00			
	NO2 - Kg / Batch	48.01			
	NO - Kg / Batch	30.01			
	H2O - Kg / Batch	18.01			
	NH3 - Kg / Batch	17.03			
	HF - Kg / Batch	20.01			
	HCl - Kg / Batch	38.48			
	Air (N2 + O2) - Kg / Batch	28.85			
	Inert Solids - Kg / Batch		0.0	0.0	
Contaminants	Cd(NO3)2 - Kg / Batch	236.41	0.00	0.00	
	Cr - Kg / Batch	52.00	0.000	0.032	
	Ni - Kg / Batch	58.69	0.000	0.016	
	Al - Kg / Batch	26.98	0.0E+00	0.053	
	Fluoride (not UF4) - Kg / Batch	19.00	0		
	Gd(NO3)3 - Kg / Batch	343.25	0.00	0	
	Pb - Kg / Batch	207.20	0.000	0.0039	
	Pu - mg / Batch	239	100.00	2.2	
	Np - mg / Batch	237	0.00	0	
	Tc-99 - mg / Batch	99	0.00	0	
	Fe - Kg / Batch	55.85	0.0000	0.079	
	Thorium	Th-228 - mg / Batch	228	1.14	1.14
Th-229 - mg / Batch		229	517.10	517.10	
Th-232 - mg / Batch		232	0.00	0.00	
Th Total - mg / Batch		229.0	518.23	518.23	

Characteristic			
Stream / Line Number	A	B	C
Stream	Uranyl Nitrate from NMC&A Column	Depleted Uranyl Nitrate from DU Storage Tank	Down-Blended Uranyl Nitrate to Denitration
Form (Powder, Solution, etc.)	Solution	Solution	Solution
U Form	UN	UN	UN
Th-228 - mCi / Batch	110.000		110.000
Temperature (deg C)			
U-235 Enrichment	149.5%	0.20%	0.93%
Density (g/ml)	1.3	1.8	1.6
Solution g/U/L	220	429	427
Liters / Batch	14.1	1472	1486
KG / Batch	19.0	2329	2348
KG U / Batch	3.10	631	634

Inputs:		Outputs:	
Desired U235 Equivalent Enrichment	0.93%	Actual U235 Enrichment	0.204%
U-233 / U-235 "potency" =	1.6	DB Ratio DUN-HEU	203.5

Assumptions: 1 Conservation of solution volume Notes: 1 U²³³ equivalent enrichment must be less than 0.96%

Prepared By: John Kinlaw Date

Reviewed By: Michael Barbeau Date

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SECTION D - PACKAGING AND MARKING

D.1 ORO D01 Packaging (MAY 1997) (Revised)

- (a) Preservation, packaging, and packing for shipment or mailing of all work other than radioactive work delivered hereunder shall be in accordance with good commercial practice and adequate to insure acceptance by common carrier and safe transportation at the most economical rate(s).
- (b) Reports deliverable under this contract shall be mailed by other than first-class mail, unless the urgency of the deliverable sufficiently justifies the use of first-class mail. The Contractor shall not utilize certified or registered mail or private parcel delivery service for the distribution of reports under this contract without the advance approval of the Contracting Officer.

D.2 ORO D05 Marking (APR 1984)

- (a) Each package, report or other deliverable shall be accompanied by a letter or other document which:
 - (1) Identifies the contract by number under which the item is being delivered.
 - (2) Identifies the deliverable Item Number or Report Requirement which requires the delivered item(s).
 - (3) Indicates whether the Contractor considers the delivered item to be a partial or full satisfaction of the requirement.
- (b) For any package, report, or other deliverable being delivered to a party other than the Contracting Officer, a copy of the document required in (a) above shall be simultaneously provided to the office administering the contract, as identified in Section G of the contract, or if none, to the Contracting Officer.

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SECTION E - INSPECTION AND ACCEPTANCE

E.1 52.246-5 Inspection of Services – Cost-Reimbursement (APR 1984)

- (a) Definition. "Services," as used in this clause, includes services performed, workmanship, and material furnished or used in performing services.
- (b) The Contractor shall provide and maintain an inspection system acceptable to the Government covering the services under this contract. Complete records of all inspection work performed by the Contractor shall be maintained and made available to the Government during contract performance and for as long afterwards as the contract requires.
- (c) The Government has the right to inspect and test all services called for by the contract, to the extent practicable at all places and times during the term of the contract. The Government shall perform inspections and tests in a manner that will not unduly delay the work.
- (d) If any of the services performed do not conform with contract requirements, the Government may require the Contractor to perform the services again in conformity with contract requirements, for no additional fee. When the defects in services cannot be corrected by reperformance, the Government may -
 - (1) Require the Contractor to take necessary action to ensure that future performance conforms to contract requirements; and
 - (2) Reduce any fee payable under the contract to reflect the reduced value of the services performed.
- (e) If the Contractor fails to promptly perform the services again or take the action necessary to ensure future performance in conformity with contract requirements, the Government may -
 - (1) By contract or otherwise, perform the services and reduce any fee payable by an amount that is equitable under the circumstances; or
 - (2) Terminate the contract for default.

E.2 Inspection (NOV 2007)

Inspection of all items under this contract shall be accomplished by the DOE Contracting Officer's Representative (COR) identified by the Contracting Officer (CO) as responsible for the product, report, or service being delivered, or any duly authorized DOE representative as designated from time to time by the CO in writing in accordance with Section G of this contract. Primary inspection will be conducted at the TWPC but inspection may occur at other DOE locations or the Contractor's location. Inspection criteria used to determine whether the Contractor has met the requirements of the contract include, but are not limited to, compliance with Federal and State Regulations, NRC, OSHA, and DOE Directives and Standards, and Regulatory Agency Agreements. Inspection will be conducted in accordance with FAR Clause 52.246-5, "Inspection of Services-Cost Reimbursement" (APR 1984).

E.3 Acceptance (NOV 2007)

Acceptance of all work and effort under this contract (including "Reporting Requirements" in Section J, Attachment A) shall be accomplished by the CO, or any representative designated by the CO in writing. Primary acceptance of the contract requirements will be at the TWPC;

however, acceptance may occur at other DOE locations or at the Contractor's location. Acceptance criteria which acknowledge items, services and deliverables conform to the applicable contract quality and quantity requirements include: compliance with Federal and State Regulations, NRC, OSHA, and DOE Directives and Standards, Regulatory Agreements, and the Contractor performance objectives set forth in the contract, Section C.

E.4 Recovery and Reinvestment Act of 2009 – Certification

Certification - In order for the Contracting Officer to accept any products or services funded by the Recovery Act, the Contractor shall certify that the items were delivered and/or work was performed for a purpose authorized under the Recovery Act.

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SECTION F - DELIVERIES OR PERFORMANCE

F.1 Term of Contract (AUG 2006)

The term of this contract is for three years plus a transition period of 35 days (or a transition period as otherwise directed by the Contracting Officer).

F.2 Recovery Act Period of Performance

The period of performance for the Recovery Act work specified in Section C shall be from the date contract transition concludes through September 30, 2011.

F.3 52.242-15 Stop Work Order (AUG 1989) - Alternate I (APR 1984)

(a) The Contracting Officer may, at any time, by written order to the Contractor, require the Contractor to stop all, or any part, of the work called for by this contract for a period of 90 days after the order is delivered to the Contractor, and for any further period to which the parties may agree. The order shall be specifically identified as a stop-work order issued under this clause. Upon receipt of the order, the Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the order during the period of work stoppage. Within a period of 90 days after a stop-work is delivered to the Contractor, or within any extension of that period to which the parties shall have agreed, the Contracting Officer shall either -

- (1) Cancel the stop-work order; or
- (2) Terminate the work covered by the order as provided in the Termination clause of this contract.

(b) If a stop-work order issued under this clause is canceled or the period of the order or any extension thereof expires, the Contractor shall resume work. The Contracting Officer shall make an equitable adjustment in the delivery schedule, the estimated cost, the fee, or a combination thereof, and in any other terms of the contract that may be affected, and the contract shall be modified, in writing, accordingly, if -

- (1) The stop-work order results in an increase in the time required for, or in the Contractor's cost properly allocable to, the performance of any part of this contract; and
- (2) The Contractor asserts its right to the adjustment within 30 days after the end of the period of work stoppage; provided that, if the Contracting Officer decides the facts justify the action, the Contracting Officer may receive and act upon the claim submitted at any time before final payment under this contract.

(c) If a stop-work order is not canceled and the work covered by the order is terminated for the convenience of the Government, the Contracting Officer shall allow reasonable costs resulting from the stop-work order in arriving at the termination settlement.

(d) If a stop-work order is not canceled and the work covered by the order is terminated for default, the Contracting Officer shall allow, by equitable adjustment or otherwise, reasonable costs resulting from the stop-work order.

F.4 ORO F05 Principal Place of Performance (MAY 1997)

The contract will be principally performed at the TRU Waste Processing Center (TWPC) in Oak Ridge, Tennessee.

F.5 Performance Evaluation (JUL 2007) (Revised)

On an annual basis, DOE will formally evaluate the Contractor's performance. The evaluation elements may include quality, cost control, timeliness of performance, business relations, customer/DOE satisfaction, key personnel performance, and compliance with safety and security standards. The Contractor's performance against the performance objectives and measures will be reflected in the annual evaluation.

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SECTION G - CONTRACT ADMINISTRATION DATA

G.1 ORO G01 Correspondence Procedures (OCT 2004)

All correspondence submitted by the Contractor (except for invoices and reports) shall be subject to the following procedures:

- (a) Technical Correspondence. Technical correspondence concerning performance of this contract shall be addressed to the DOE Contracting Officer's Representative (COR), with an information copy of the correspondence to the DOE Contract Specialist or Contracting Officer.
- (b) Patents/Technical Data/ Intellectual Property Correspondence. Correspondence concerning patent and technical data issues shall be addressed to the Assistant Chief Counsel for Intellectual Property, Office of Chief Counsel, USDOE, Post Office Box 2001, Oak Ridge, TN, 37831-8751, with an informational copy to the DOE Contract Specialist or Contracting Officer and the COR.
- (c) Non-technical Administrative Correspondence. All correspondence, other than technical correspondence, shall be addressed to the Contracting Officer or Contract Specialist designated in ORO G25, with information copies of the correspondence to the DOE COR.
- (d) Subject Line(s). All correspondence shall contain a subject line commencing with the contract number, as illustrated below:

"SUBJECT: Contract No. (Insert the contract number), (Insert subject topic after contract number, e.g., "Request for subcontract placement consent)".

G.2 ORO G10 Submission of Vouchers/Invoices (JULY 2006)

- (a) The Contractor shall submit invoices in accordance with the FAR payment clause in Section I of the contract (unless prior written consent from the Contracting Officer for more frequent billing is obtained). The period of performance covered by the invoices should be the same as covered by any required monthly cost management reports.
- (b) The invoice (Standard Form 1034 located at <http://professionals.pr.doe.gov/ma5/MA-5Web.nsf/Procurement/ProcurementForms?OpenDocument>) should include a statement of cost for services rendered. This statement should include, as a minimum, a breakout by cost or price element and task order (if applicable) of all services actually provided by the Contractor, both for the current billing period and cumulatively for the entire contract. The statement of cost must include a certification statement (see Section J, Attachment D) signed by a responsible official of the Contractor.
- (c) The contractor is required to submit payment invoices and supporting documentation electronically through [the Oak Ridge Financial Service Center's \(ORFSC\) Vendor Inquiry Payment Electronic Reporting System \(VIPERS\)](#) which is accessible at <http://finweb.oro.doe.gov/>. Detailed instructions on how to enroll and use the system are provided on the web page.

The website provides the vendor the following system capability, required EFT banking form/information, and instructions:

- Logon to VIPERS
- Request Access
- Vendor Banking Data Form
- Registration
- Invoice Status
- Electronic Invoicing

G.3 Submission of Invoices for Recovery Act

The following additional invoice procedure applies to the submission of invoices for Recover Act work specified in Section C:

The contractor may invoice costs for both Recovery Act work and other work in the same invoice. However, the contractor shall separately identify costs in its invoices that pertain to the Recovery Act work. Recovery Act costs shall also be segregated in the invoice so as to identify those costs associated with each applicable appropriation at the TBD (*specify level; at a minimum this should be at the Recovery Act program and project values*) level of the following accounting and appropriations data:

Accounting and Appropriations Data

Level	1	2	3	4	5	6	7	8	9
Numerical Characters	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Level Name	Fund	Appropriation Year	Allottee	Reporting Entity	Object Class	Program	Project	WFO	Local Use

(Include each appropriation, as applicable, in the above table.)

The contractor shall certify in each invoice that the costs included in the invoice for Recovery Act work were incurred only to accomplish the Recovery Act work in accordance with Section C. Other existing provisions applicable to invoice submission are applicable to Recovery Act invoices.

G.4 ORO G20 Contracting Officer's Representative (COR) (MAY 1997)

The Contracting Officer's Representative will be designated by separate letter and will represent the Contracting Officer in the technical phases of the work. A copy of this designation letter shall be furnished to the Contractor. The COR is not authorized to change any of the terms and conditions of this contract. Changes in the Scope of Work will be made only by the Contracting Officer by properly written modification(s) to the contract. Additional Contracting Officer's Representative(s) for other purposes as required may be designated in writing by the Contracting Officer.

G.5 ORO G25 Contract Administration (MAY 1997)

The contract will be administered by:

U.S. Department of Energy
Oak Ridge Operations Office
Procurement and Contracts Division
ATTN: Jason J. Dozier
P.O. Box 2001
Oak Ridge, Tennessee 37831

Written communication shall make reference to the contract number and shall be mailed to the Contract Specialist designated via separate correspondence to the above address.

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SECTION H - SPECIAL CONTRACT REQUIREMENTS

H.1 ORO H01 Consecutive Numbering (MAY 1997)

Due to automated procedures employed in formulating this document, clauses contained within it may not always be consecutively numbered.

H.2 ORO H05 Modification Authority (MAY 1997)

Notwithstanding any of the other clauses of this contract, the Contracting Officer shall be the only individual authorized to:

- (a) Accept nonconforming work,
- (b) Waive any requirement of this contract, or
- (c) Modify any term or condition of this contract.

H.3 ORO H12 Other Government Contractors (OCT 2004)

The Government may undertake or award other contracts for additional work or services. The Contractor agrees to fully cooperate with such other contractors and Government employees and carefully fit its own work to such other work as may be directed by the Contracting Officer. The Contractor shall not commit or permit any act which will interfere with the performance of work by any other contractor or by Government employees. If DOE determines that the Contractor's activities may interfere with another DOE contractor, the Contracting Officer shall so notify the Contractor and the Contractor shall comply with any instructions the Contracting Officer may provide.

H.4 ORO H35 Worker Safety and Health Program (JAN 2007)

- (a) The Contractor shall comply with all applicable safety and health requirements set forth in 10 CFR 851, Worker Safety and Health Program. The Contractor shall develop, implement, and maintain a written Worker Safety and Health Program (WSHP) which shall describe the Contractor's method for complying with and implementing the applicable requirements of 10 CFR 851. The WSHP shall be submitted to and approved by DOE. The approved WSHP must be implemented prior to the start of work. In performance of the work, the Contractor shall provide a safe and healthful workplace, and must comply with its approved WSHP and all applicable Federal and state environmental, health, and safety regulations. The Contractor shall take all reasonable precautions to protect the environment, health, and safety of its employees, DOE personnel, and members of the public. When more than one contractor works in a shared workplace, the Contractor shall coordinate with the other contractors to ensure roles, responsibilities, and worker safety and health provisions are clearly delineated. The Contractor shall participate in all emergency response drills and exercises.
- (b) The Contractor shall take all necessary and reasonable steps to minimize the impact of its work on DOE functions and employees, and immediately report all job-related injuries and/or illnesses which occur in any DOE facility to the Contracting Officer Representative (COR). Upon request, the Contractor shall provide a copy of occupational safety and health self-assessments and/or inspections of work sites for job hazards for its DOE facilities to the COR.

- (c) The Contracting Officer may notify the Contractor, in writing, of any noncompliance with the terms of this clause, plus the corrective action to be taken. After receipt of such notice, the Contractor shall immediately take such corrective action.
- (d) In the event that the Contractor fails to comply with the terms and conditions of this clause, the Contracting Officer may, without prejudice to any other legal or contractual rights, issue a stop work order halting all or any part of the work. Thereafter, a start order for resumption of the work may be issued at the discretion of the Contracting Officer. The Contractor shall not be entitled to an equitable adjustment of the contract amount or extension of the performance schedule on any stop work order issued under this special contract requirement.

H.5 ORO H45 Security Qualifications (JAN 2006)

- (a) The Contractor may be required to perform work in designated security areas or work with documents or information which may require an access authorization (clearance). Additionally, the scope of their work may require enrollment into the Human Reliability Program (HRP). The Contractor shall ensure that all personnel assigned under this contract and working with classified information, matter, and/or materials possess a DOE "Q" or "L" access authorization (clearance) matching the classification level of the data and information the employee will be required to work on in the performance of their assigned tasks.
- (b) Individuals that do not require a "Q" or "L" clearance will possess, as a minimum, if required, a Limited Site Specific Only (LSSO) badge and meet all access authorization requirements per HSPD-12, DOE N 206.4, and local procedures. For employees requiring DOE "Q" or "L" security clearances and/or LSSO badge, the Contractor shall not employ anyone who is not a citizen of the United States. (Clearance-Access authorizations are granted by the DOE pursuant to 10 CFR Part 710.) Security Badges must be worn properly at all times while working at any of the DOE and NNSA facilities.
- (c) Clearances will be provided and paid for by DOE. The request for clearance and renewal of clearances must be justified based on actual job performance requirements. The Contracting Officer (CO), in coordination with the appropriate Federal security representative, may waive the clearance requirement for personnel not involved with classified information while the appropriate access authorizations or badges are being processed, or for personnel associated with the program for short periods of time, such as consultants. In these cases, security requirements regarding these circumstances will be followed. The Contractor, on a case-by-case basis, will provide its own cleared escorts as needed. The Contracting Officer's Representative or Contract Technical Monitor (COR/CTM) will approve contractor personnel for escort privileges and provide escort training.
- (d) The Contractor shall be required to conduct pre-employment investigative screening of prospective employees in order to ensure trustworthiness and reliability for all individuals who do not possess a DOE "Q" access authorization. For these individuals, the Contractor shall provide certification to the COR that an investigative screening has been completed prior to employment. The certification shall include, as a minimum, verification of personal identity, previous employment and education, and the results of a credit and law enforcement check.
- (e) Requests for access authorization shall not be submitted until the contract has been awarded, and a favorable Foreign Ownership, Control, or Influence (FOCI) determination must be rendered by DOE before an access authorization will be granted, reinstated, continued, extended, or transferred for the contractor's applicant employment. Upon contract

award, the Contractor is encouraged to use the DOE Accelerated Access Authorization Program (AAAP) to obtain an Interim "Q" access authorization. The request for AAAP shall include the certified results of the pre-employment investigative screening of the prospective employee and a local Federal review prior to approved submission under AAAP.

- (f) The Contractor shall turn in badges for employees: (1) who are no longer working on the contract; (2) who no longer require access; (3) when their badge expires; or (4) when the contract expires or is terminated. Badges shall be returned to the individual handling security terminations. Notification of employment terminations supporting this contract will be made in writing to the CO and COR/CTM.
- (g) In addition to the possible requirement of holding an access authorization, individuals, if the work position is identified as requiring enrollment in the Human Reliability Program (HRP) and/or maintaining currency under certain program requirements (e.g., annual HRP training) must be willing to comply with all regulatory requirements to be granted access under the HRP Federal rules and local procedures.

H.6 ORO H50 Safeguards and Security Awareness Program (JAN 2007)

The Contractor shall establish and maintain a Safeguards and Security Awareness Program acceptable to the Department of Energy (DOE), which satisfies the requirements of the following directives:

DOE M 470.4-1, Chg 1, Safeguards and Security Program Planning and Management

A Safeguards Security Awareness Coordinator must be appointed and will be responsible for ensuring all employees, cleared and uncleared, who are assigned to a DOE facility or who are performing work involving access to classified facilities, classified information, or special nuclear materials are informed of their security responsibilities. Any subcontracts in support of this work shall require subcontractors to comply with the Contractor's Safeguards and Security Awareness Program.

H.7 ORO H55 Quality Assurance System (JAN 2006)

In the conduct of the work performed under this contract, the Contractor agrees to establish and/or maintain an acceptable quality assurance system. As required by DOE Order 414.1C, Quality Assurance, a quality assurance plan shall be submitted to DOE for approval. The contractor has responsibility to perform activities in connection with a nuclear facility, as defined by Title 10 Code of Federal Regulations (CFR) 820, Procedural Rules for DOE Nuclear Activities, Title 10 CFR 835. Radiation Protection, and Title 10 CFR 830, Nuclear Safety Management, specifically Section 830.3; therefore, the applicability of the requirements in Section 830.120-830.122 shall apply. Any subcontracts in support of this work shall require subcontractors to comply with the Contractor's quality assurance system.

H.8 Nondisplacement of Qualified Workers

- (a) Consistent with the efficient performance of this contract, the contractor and its subcontractors shall, except as otherwise provided herein, in good faith offer those employees (other than managerial and supervisory employees) employed under the predecessor contract whose employment will be terminated as a result of award of this contract or the expiration of the contract under which the employees were hired, a right of first refusal of employment under this contract in positions for which employees are qualified. The

- contractor and its subcontractors shall determine the number of employees necessary for efficient performance of this contract and may elect to employ fewer employees than the predecessor contractor employed in connection with performance of the work. Except as provided in paragraph (b) there shall be no employment opening under this contract, and the contractor and any subcontractors shall not offer employment under this contract, to any person prior to having complied fully with this obligation. The contractor and its subcontractors shall make an express offer of employment to each employee as provided herein and shall state the time within which the employee must accept such offer, but in no case shall the period within which the employee must accept the offer of employment be less than 10 days.
- (b) Notwithstanding the obligation under paragraph (a) above, the contractor and any subcontractors (1) may employ under this contract any employee who has worked for the contractor or subcontractor for at least 3 months immediately preceding the commencement of this contract and who would otherwise face lay-off or discharge, (2) are not required to offer a right of first refusal to any employee(s) of the predecessor contractor who are not service employees within the meaning of the Service Contract Act of 1965, as amended, 41 U.S.C. 357(b), and (3) are not required to offer a right of first refusal to any employee(s) of the predecessor contractor whom the contractor or any of its subcontractors reasonably believes, based on the particular employee's past performance, has failed to perform suitably on the job.
- (c) In accordance with Federal Acquisition Regulation 52.222-41(n), the contractor shall, not less than 10 days before completion of this contract, furnish the Contracting Officer a certified list of the names of all service employees working under this contract and its subcontracts during the last month of contract performance. The list shall also contain anniversary dates of employment of each service employee under this contract and its predecessor contracts either with the current or predecessor contractors or their subcontractors. The Contracting Officer will provide the list to the successor contractor, and the list shall be provided on request to employees or their representatives.
- (d) If it is determined, pursuant to regulations issued by the Secretary of Labor (Secretary), that the contractor or its subcontractors are not in compliance with the requirements of this clause or any regulation or order of the Secretary, appropriate sanctions may be imposed and remedies invoked against the contractor or its subcontractors, as provided in Executive Order (No.) 13495, the regulations, and relevant orders of the Secretary, or as otherwise provided by law.
- (e) In every subcontract entered into in order to perform services under this contract, the contractor will include provisions that ensure that each subcontractor will honor the requirements of paragraphs (a) through (b) with respect to the employees of a predecessor subcontractor or subcontractors working under this contract, as well as of a predecessor contractor and its subcontractors. The subcontract shall also include provisions to ensure that the subcontractor will provide the contractor with the information about the employees of the subcontractor needed by the contractor to comply with paragraph (c), above. The contractor will take such action with respect to any such subcontract as may be directed by the Secretary as a means of enforcing such provisions, including the imposition of sanctions for non-compliance: provided, however, that if the contractor, as a result of such direction, becomes involved in litigation with a subcontractor, or is threatened with such involvement, the contractor may request that the United States enter into such litigation to protect the interests of the United States.

H.9 ORO H63 Insurance (NOV 2007)

In accordance with FAR 52.228-5, "Insurance – Work on a Government Installation," the minimum amount of insurance coverage shall be in accordance with FAR 28.307-2, unless increased coverage is otherwise required by law, regulation, or the Contracting Officer.

H.10 ORO H65 Confidentiality of Information (MAY 1997)

- (a) To the extent that the work under this contract requires that the Contractor be given access to confidential or proprietary business, technical, or financial information belonging to the Government or other companies, the Contractor shall after receipt thereof, treat such information as confidential and agrees not to appropriate such information to its own use or to disclose such information to third parties unless specifically authorized by the Contracting Officer in writing. The foregoing obligations, however, shall not apply to:
- (1) Information which, at the time of receipt by the Contractor, is in public domain;
 - (2) Information which is published after receipt thereof by the Contractor or otherwise becomes part of the public domain through no fault of the Contractor;
 - (3) Information which the Contractor can demonstrate was in its possession at the time of receipt thereof and was not acquired directly or indirectly from the Government or other companies;
 - (4) Information which the Contractor can demonstrate was received by it from a third party who did not require the Contractor to hold it in confidence.
- (b) The Contractor shall obtain the written agreement, in a form satisfactory to the Contracting Officer, of each employee permitted access, whereby the employee agrees that he will not discuss, divulge, or disclose any such information or data to any person or entity except those persons within the Contractor's organization directly concerned with the performance of the contract.
- (c) The Contractor agrees, if requested by the Government, to sign an agreement identical, in all material respects, to the provisions of this clause, with each company supplying information to the Contractor under this contract, and to supply a copy of such agreement to the Contracting Officer.
- (d) The Contractor agrees that upon request by DOE it will execute a DOE-approved agreement with any party whose facilities or proprietary data it is given access to or is furnished, restricting use and disclosure of the data or the information obtained from the facilities. Upon request by DOE, such an agreement shall also be signed by Contractor personnel.
- (e) This clause shall flow down to all appropriate subcontracts.

H.11 ORO H75 Diversity Program (MAY 1997)

- (a) The Contractor shall develop and implement a Diversity Program in support of the DOE Diversity Initiative. A Diversity Plan covering the full period of performance (base and option periods) shall be submitted to the Contracting Officer for approval within sixty (60) days after the award of this Contract. Once the Diversity Plan is approved by the Contracting Officer, the Contractor shall implement the plan within thirty (30) days.
- (b) The Diversity Plan shall address, at a minimum, the Contractor's approach to ensure an effective Diversity Program (including addressing applicable Affirmative Action and Equal Employment Opportunity regulations) to include:
 - (1) a statement of the Contractor's policies and practices;
 - (2) planned initiatives and activities which demonstrate a commitment to a Diversity program including recruitment strategies for hiring a diverse work force. The Diversity Plan shall also address, as a minimum, the Contractor's approach for promoting diversity through
 - (i) the Contractor's work force,
 - (ii) educational outreach, including a mentor/protégé program,
 - (iii) stakeholder involvement and outreach;
 - (iv) subcontracting, and
 - (v) economic development.
- (c) An annual Diversity Report shall be submitted pursuant to Section J, Attachment A entitled "Reporting Requirements." This report shall provide a list of accomplishments achieved both internally and externally and projected developments during the current reporting period. The report shall also list any proposed changes to the Diversity Plan which shall be subject to Contracting Officer approval.
- (d) Failure on the part of the Contractor to develop and implement a Diversity Plan as required in this clause shall constitute a breach of this contract.

H.12 ORO H95 Government Property Alternate I (MAY 1997)

- (a) Only that property and data specifically included in the LIST OF GOVERNMENT FURNISHED PROPERTY, Part III--Section J – Attachment B to the contract, shall be furnished by the Government.
- (b) Any request from the contractor to acquire direct charge property shall include the following, where applicable:
 - (1) Sufficient details to justify and support the acquisition, including the itemized description and cost estimate.
 - (2) An analysis of the most economical method of acquisition (e.g., lease versus purchase).
 - (3) A description of the material equity arising from any proposed lease agreement to reflect any changes in the acquisition authorization.

The LIST OF GOVERNMENT FURNISHED PROPERTY shall be modified as appropriate to reflect any changes in the acquisition authorization.

- (c) The Federal Acquisition Regulation (FAR Subpart 45.5) prescribes the Contractor recordkeeping and reporting requirements for Federal contracts. The FAR reporting requirements apply to plant equipment having an acquisition cost of \$5,000 or more. The Department of Energy will require the Contractor to prepare reports and account for property at a lower threshold. The dollar threshold will be prescribed at contract award. In addition to these requirements, the Department of Energy requires the Contractor to use established DOE asset codes to identify Government property. The Contractor shall furnish an annual report, as of August 31 of each year for all Government property at subcontractor facilities. The report is due not later than 45 days after the end of the reporting period. The annual reporting requirement applies to capital equipment and real property acquired or disposed of during the period, by asset type. In addition, the annual report must include government-owned materials held in storage for issue when the balance on hand at the end of the reporting period amounts to \$50,000 or more. In most cases, only the beginning and ending balance shall be indicated on the report.

H.13 ORO H130 Subcontracts and Purchase Orders (OCT 2004) (Revised)

In accordance with Section I Clause, "52.244-2 Subcontracts," the Contractor may, but only when authorized by the Contracting Officer, enter into subcontracts for the performance of any portion of the work described in the Performance Work Statement (PWS) and must have an approved purchasing system. Purchase orders shall not be entered into by the Contractor for items whose purchase is expressly prohibited in writing by the Contracting Officer. All subcontracts for the performance of any portion of the work described in the PWS that exceed the dollar threshold described in 52.244-2 shall be submitted to the Contracting Officer for approval. The Government reserves the right at any time to require that the Contractor submit any or all other contractual arrangements, including but not limited to purchase orders or classes of purchase orders, for approval, and provide information concerning methods, practices, and procedures used or proposed to be used in subcontracting and purchasing. The Contractor shall use methods, practices, or procedures in subcontracting or purchasing which are acceptable to DOE. Subcontracts and purchase orders shall be made in the name of the Contractor, shall not bind nor purport to bind the Government, shall not relieve the Contractor of any obligation under this contract (including, among other things, the obligation to properly supervise and coordinate the work of subcontractors), and shall be in such form and contain such provisions as are required by this contract or as the Contracting Officer may prescribe. Any consent by the Contracting Officer to the placement of subcontracts shall not be construed to create subcontractor privity of contract with the Government.

H.14 ORO H150 Representations, Certifications, and Other Statements of the Offeror (MAY 1997)

The Representations, Certifications, and Other Statements of the Offeror, dated May 27, 2009 for this contract are, by reference, hereby incorporated in and made a part of this contract.

H.15 ORO H165 Lobbying Restriction (Energy and Water Act 2005)

The contractor agrees that none of the funds obligated on this award shall be expended, directly or indirectly, to influence congressional action on any legislation or appropriation matters pending before Congress, as described in 18 U.S.C. 1913. This restriction is in addition to those prescribed elsewhere in statute and regulation.

H.16 ORO H176 Employee Training (APR 2005)

Contractor's Responsibility: The Contractor shall provide fully qualified and trained personnel from its own resources to support ORO requirements. ORO may provide training assistance at its discretion at no cost to the Contractor. All training and travel must be approved by the COR for trips equal to or exceeding \$7,500.00.

Mandatory Training: The Contractor shall ensure that all employees attend safety and security training once within 30 days of beginning performance on this contract and at least once annually thereafter. Contractor shall ensure that every employee is instructed to safely and competently perform the work.

H.17 ORO H178 Standards of Conduct (APR 2005)

The Contractor shall be responsible for maintaining satisfactory standards of employee competency, conduct, appearance, and integrity and shall be responsible for taking such disciplinary action with respect to its employees as may be necessary. All persons employed in the performance of this contract shall comply with the regulations and procedures pertaining to access and use of Government buildings, grounds, vehicles, equipment, and other property. Unofficial work or work unrelated to the contract cannot be performed at Government facilities.

H.18 ORO H205 Energy Efficiency in Energy Consuming Products (JUL 2006)

When the contract requires the specification or delivery of energy consuming products for use in a Federal facility, the contractor will specify or deliver ENERGYSTAR ® qualified products or products conforming to the Federal Energy Management Program's (FEMP) Energy Efficiency Requirements, whichever may be applicable, provided products with such a designation are available and are life cycle cost effective and meet applicable performance standards. Information about these products is available for ENERGYSTAR ® at <http://www.energystar.gov/products> and FEMP at <http://www.eere.energy.gov/femp/procurement>.

H.19 Contract Assignment (JUL 2007)

Both parties recognize that the Government may assign this contract to another Government prime contractor to be administered as a subcontract. The contractor may not assign or novate the contract without prior approval of DOE.

H.20 Key Personnel (JUL 2007)

In furtherance of Section I Clause 952.215-70, "Key Personnel," all key personnel shall be assigned full time to this contract and available to begin working on the effective date of the contract. Key Personnel should be on-site. No substitution of Key Personnel is permitted in the first three years of the contract, absent illness, death, or termination, without the prior consent of the Contracting Officer.

H.21 Changes

In accordance with Section I, clause 52.243-6, the Contractor shall implement Change Order Accounting for changes exceeding \$100,000. Change Order Accounting shall be implemented in all instances when the Contractor perceives a change.

H.22 Disposition of Intellectual Property - Failure to Complete Contract Performance

The following provisions shall apply in the event the Contractor does not complete contract performance for any reason:

- (a) Regarding technical data and other intellectual property, DOE may take possession of all technical data, including proprietary data and data obtained from subcontractors, licensors, and licensees, necessary to operate the treatment facility ("facility"), subject to the Rights in Data clause of this contract, as well as the designs, operation manuals, flowcharts, software, etc., completed manuals, flowcharts, completed facilities, equipment and other property and information necessary for performance of the work or operation of the facility to treat the waste in conformance with the purpose of this contract. Proprietary data will be protected in accordance with the limited rights data provisions of the Rights in Data Clause.
- (b) The Contractor agrees to and does hereby grant to the Government an irrevocable non-exclusive, paid-up license in and to any inventions or discoveries regardless of when conceived or actually reduced to practice or acquired by the Contractor, and any other intellectual property, including technical data and proprietary data, which are owned or controlled by the Contractor, at any time through completion of this contract and which are incorporated or embodied in the construction of the facility or which are utilized in the operation of the facility or which covers articles, materials, or products manufactured at the facility, (1) to practice or to have practiced by or for the Government at the facility, and (2) to transfer such license with the transfer of that facility. The acceptance or exercise by the Government of the aforesaid rights and license shall not prevent the Government at any time from contesting the enforceability, validity, or scope of, or title to, any rights or patents or other intellectual property herein licensed.
- (c) In addition, the Contractor will take all necessary steps to assign permits, authorizations, leases, and any licenses in any third party intellectual property for operations and closure of the facility to DOE or such other third party as DOE may designate.

H.23 Protection of Government Property – Management of High Risk Property and Classified Materials

The Contractor shall take all reasonable precautions, and such other actions as may be directed by the Contracting Officer, or in the absence of such direction, in accordance with sound business practice, to safeguard and protect government property in the Contractor's possession or custody. In addition, the contractor shall ensure that adequate safeguards are in place, and adhered to, for the handling, control and disposition of high-risk property and classified materials throughout the life cycle of the property and materials consistent with the policies, practices and procedures for property management contained in the Federal Property Management Regulations (41 CFR chapter 101), the Department of Energy Property Management Regulations (41 CFR chapter 109), and other applicable regulations.

High-risk property is the loss, destruction, damage to, or the unintended or premature transfer of property which could pose risks to the public, the environment, or the national security interests of the United States. High-risk property includes proliferation sensitive, nuclear related dual use, export controlled, chemically or radioactively contaminated, hazardous, and specially designed and prepared property, including property on the militarily critical technologies list.

H.24 Project Management Systems and Reporting Requirements

- (a) Project Management System. The Contractor shall establish, maintain, and use a project control system that is tailored based on the project's size, risk, and complexity. The project documentation requirements are tailored by degree of detail to successfully manage the project. The project control system shall reflect the project status relative to cost and schedule performance, and tracks changes to the baseline. This system shall be fully integrated with the financial accounting systems on-site to ensure consistent reporting of costs. The Contractor shall maintain a project control system in accordance with the following requirements: (1) Attachment 2 to DOE Order 413.3A, Program and Project Management for the Acquisition of Capital Assets, July 28, 2006 and (2) Integrated Planning, Accountability, and Budgeting System Information Systems (IPABS-IS) Data Requirements, February 16, 1999.

The Contractor shall provide the Contracting Officer with a detailed written description of the proposed project control system for review and approval at award of this contract. Cost effective, graded application of controls will be a critical factor in determining acceptability of the proposed system.

The DOE Contracting Officer Representative (COR) or designated representatives will conduct a compliance review of the Contractor's proposed project control system to determine if the description and procedures meet the intent of this contract clause.

- (b) Baseline Development and Cost Collection. The Contractor shall develop and submit a baseline consistent with the terms and conditions of this contract and their proposal within thirty (30) days after effective date of contract. The baseline shall be developed in accordance with DOE Order 413.3A and include all of the scope identified in the Performance Work Statement (PWS). The Work Breakdown Structure (WBS) shall provide the basis for all project control system components, including estimating, scheduling, budgeting, performing, managing, and reporting, as required under this contract. The Contractor shall propose a WBS and dictionary that represents the PWS.

The Contractor shall develop a Risk Management Plan (RMP) that identifies internal and external risks to achieving the project baseline. The RMP will define and analyze risks and provide a quantitative assessment of potential cost and schedule impacts, as well as document what actions have been taken to mitigate potential impacts to scope execution. The Contractor shall provide its assessment of the impact these uncertainties may have on project cost and schedule. If, in the Contractor's opinion, the risk to cost and schedule is significant, the Contractor shall describe its approach to eliminate, avoid, or mitigate the risks. When developing approaches to eliminate, avoid or mitigate risks to cost and schedule, the Contractor shall propose an allocation of risk responsibility to the organization best suited to manage the risk. The RMP shall be updated at least annually.

Cost estimates shall be integrated with the WBS and use estimating methodologies consistent with DOE Order 413.3A. Costs shall be discernable by direct, indirect and fee. The project control system must maintain capability to provide total estimated cost (TEC), total project cost (TPC), estimates-to-complete (ETC), and estimates-at-completion (EAC).

Schedules shall be developed that integrate with the WBS. All project work scope shall be included regardless of funding source. Each WBS element will have assigned duration that will be based on work scope. Activity logic links shall depict all work scope constraints and

decision points and shall be integrated into a total project network schedule. Activities shall be resource loaded at the lowest practical level of the WBS to develop time-phased budgets that are integrated with the schedule. Labor resources shall be loaded based upon a staffing analysis. Float analysis will be summarized at the total project level.

The Contractor shall analyze DOE proposed or directed funding changes for their impact on technical, schedule, and cost elements of the baseline, along with potential impacts to the total estimated cost and schedule of the contract.

Any Contractor requested changes or DOE directed changes shall be addressed through the established change control process. This process will not, in and of itself, have the authority to change the total estimated cost or schedule of the contract.

Prior to the release of funds for each fiscal year, DOE will analyze the baseline for that fiscal year. By June 30 of each year, DOE will provide an estimate of any budget restrictions or specific technical or schedule guidance for the upcoming fiscal years through the remainder of the project.

The Contractor shall prepare a project performance forecast for all upcoming fiscal years from the approved project baseline. The Contractor shall submit budget allocations to each WBS element for the upcoming fiscal year with a focus on differences to the work activities described in the project baseline for that specific year. The Contractor shall comply with DOE issued Financial Plans that establish appropriation obligation control points (i.e., specific types of funding) in the performance of this contract.

The Contractor shall provide variance justification for differences between planned and actual performance against the total project baseline and the estimated cost and schedule. Performance analysis techniques shall be documented using earned-value methods as described by ANSI/EIA 748-A-1998. This performance data shall be reported to DOE. Performance metrics (i.e., quantities) are preferred for all technical work scope unless otherwise approved by the Contracting Officer. For variances greater than 10%, the analysis shall detail the causes for variance, impact on other WBS elements and corrective action required.

The EAC for the project shall be evaluated quarterly to ensure that it is consistent with observed trends in performance, emerging or resolved issues, and changes in the assessment of project risk.

All actual direct costs incurred for resources applied in the performance of work shall be recorded on a timely basis each month. Actual costs incurred must be recorded in the same accounting period that performance is measured and recorded. Any indirect costs shall also be collected and appropriately allocated to the WBS elements. The Contractor must also maintain a proper accounting system that is separate and distinct from its project control system.

Costs shall be collected at a charge number level and be able to be summed through the WBS. Mischarges on time cards or other administrative or accounting errors shall be corrected in a timely manner.

- (c) Project Reporting. The Contractor shall provide monthly status reports of the WBS in a format approved by the Contracting Officer. The status shall include cost and schedule variance at a suitable WBS level with rollup to the applicable Project Baseline Summary (PBS), the status of

major milestones, and critical technical or programmatic issues. This report shall also include overall narrative summaries, analysis of schedule trends and project float, analysis of critical manpower skills of other resources, budget and funding figures, and project risk updates.

Plans and reports shall be prepared in such a manner as to provide for consistency with the contract PWS, the baseline, and the approved WBS. The Contractor's reporting system shall be able to provide for the following at the total WBS level:

- Timely incorporation of contractual changes affecting estimated cost and schedule;
- Reconciliation of estimated costs for those elements of the WBS with current performance measurement budgets in terms of changes to the authorized work and internal re-planning;
- Changes to records pertaining to work performed that will change previously reported costs for correction of errors and routine accounting adjustments;
- Revisions to the contract estimated costs for Government-directed changes to the contractual effort.

The Contractor shall provide the Contracting Officer, or designated authorized representatives, access to any and all information and documents comprising the Contractor's project control and reporting system. Generally, access will not be requested more than one level below the level chosen by the Contracting Officer for control and approval authority, except during compliance reviews.

The Contractor shall include graded reporting requirements in all subcontracts adequate to fairly evaluate performance and support the Contractor's reporting requirements.

- (d) Baseline Change Management. The baseline is the source document for all project control and baseline change management. The processes for managing and administering changes to all elements of the baseline shall be timely, formal, and documented. Baseline changes shall be proposed when:

Necessitated by project delays, events or other impacts outside the control of the Contractor that result in an impact to the Contractor's ability to meet the overall target cost and schedule and target fee structure; and

The parties have negotiated an equitable adjustment in accordance with the section I clause entitled, "Changes-Cost-Reimbursement" or other clauses of this contract;

NOTE: Cost and schedule variances do not constitute or necessitate a baseline change.

Provided that the change does not affect total cost or schedule for the reasons stated above, the baseline change control thresholds for scope, cost, and schedule shall be the lesser of the following:

<u>Authority Level</u>	<u>Thresholds</u>
DOE Headquarters	\$10,000,000 or 20% of the BCWS annually
DOE Oak Ridge	\$ 5,000,000 or 10% of the BCWS annually
Contractor	Up to the local DOE Level

Additional work scope can only be authorized by the Contracting Officer regardless of the threshold level.

In some circumstances the Contractor may exceed authorized budget levels for a WBS when a baseline change is not warranted, such as for cost overruns. The current year ETC Analysis shall track and manage changes in funding at each WBS level.

Specific change control time frames for consideration and approval will be established by the Contracting Officer. Each change control threshold level shall accommodate emergency changes. Retroactive changes that affect schedule and cost performance data are not allowed except to correct administrative errors. A record of all approved changes, at any level, shall be maintained through the life of the project. Change control records shall maintain a clear distinction between approved changes in funding and baseline changes. Ownership of Change Control Board records and project management records resides with DOE.

Any changes to cost, schedule or fee shall be executed only through a contract modification by the Contracting Officer pursuant to the contract terms and conditions. Baseline changes will not imply the need for changes to cost, schedule or fee.

H.25 Government Furnished Vehicles

All employees driving government furnished vehicles shall provide proof of valid Tennessee driver’s license or Certificate for Driving to the Contractor.

H.26 Government Furnished Services and Items (GFSI)

Table H-1 provides a description of the Government Furnished Services and Items (GFS/I) to be furnished under this contract. The Contractor’s proposal shall be based solely on the GFS/I listed in Table H-1.

Table H-1 Description of Government Furnished Services and Items
Provide Waste Isolation Pilot Plant shipping casks (TRUPACT II, RH-72B)
Bear the cost of transportation to and disposal of wastes at WIPP.
Provide electrical power and water to the TWPC at no cost to the contractor.
Coordinate with TRU Waste Processing Center for transfer of sludge from other sludge storage tanks into the MVSTs and W-35.
Occurrence Reporting and Processing System (ORPS) access
Security Clearances
Security at site
Federal Telephone System Access

H.27 ORO H195 Access to DOE Owned or Leased Facilities (OCT 2005)

(a) The performance of this contract requires that employees of the Contractor have physical access to DOE-owned or leased facilities. The Contractor understands and agrees that DOE has a prescribed process with which the Contractor and its employees must comply in order to receive a security badge that allows such physical access. The Contractor further understands that it must propose employees whose background offers the best prospect of obtaining a security badge approval for access, considering the following criteria, which are not all inclusive and may vary depending on access requirements:

- (1) is the employee, or is the employee suspected of being, a terrorist?

- (2) is the employee the subject of an outstanding warrant?
 - (3) has the employee deliberately omitted, concealed, or falsified relevant and material facts from any Questionnaire for National Security Positions (SF-86), Questionnaire for Non-Sensitive Positions (SF-85), or similar form?
 - (4) has the employee presented false or forged identity source documents?
 - (5) has the employee been barred from Federal employment?
 - (6) is the employee currently awaiting a hearing or trial or has the employee been convicted of a crime punishable by imprisonment of six (6) months or longer?
 - (7) is the employee awaiting or serving a form of pre-prosecution probation, suspended or deferred sentencing, probation or parole in conjunction with an arrest or criminal charges against the individual for a crime that is punishable by imprisonment of six (6) months or longer?
- (b) The Contractor shall assure:
- (1) In initiating the process for gaining physical access, (i) compliance with procedures established by DOE in providing its employee(s) with any forms directed by DOE, (ii) that the employee(s) properly completes any forms, and (iii) that the employee(s) submits the forms to the person designated by the Contracting Officer.
 - (2) In completing the process for gaining physical access, that its employee (i) cooperates with DOE officials responsible for granting access to DOE-owned or leased facilities and (ii) provides additional information, requested by those DOE officials.
- (c) The Contractor understands and agrees that DOE may unilaterally deny a security badge to an employee and that the denial remains effective for that employee unless DOE subsequently determines that access may be granted. Upon notice from DOE that an employee's application for a security badge is or will be denied, the Contractor shall promptly identify and submit the forms referred to in subparagraph (b)(1) of this clause for the substitute employee. The denial of a security badge to individual employees by DOE shall not be cause for extension of the period of performance of this Contract or any contractor claim against DOE.
- (d) The Contractor shall return to the Contracting Officer or designee the badge(s) or other credential(s) provided by DOE pursuant to this clause, granting physical access to DOE - owned or leased facilities by the Contractor's employee(s), upon (1) the termination of this Contract; (2) the expiration of this Contract; (3) the termination of employment on this Contract by an individual employee; or (4) demand by DOE for return of the badge.
- (e) The Contractor shall include this clause, including this paragraph (e), in any subcontract, awarded in the performance of this Contract, in which an employee(s) of the subcontractor will require physical access to DOE-owned or leased facilities.

H.28 Access to and Ownership of Records

- (a) Government-owned records. Except as provided in paragraph (b) of this clause, all records acquired or generated by the Contractor in its performance of this contract shall be the

property of the Government and shall be delivered to the Government or otherwise disposed of by the Contractor in accordance with Federal requirements established by the National Archives and Records Administration or as the Contracting Officer may from time to time direct during the progress of the work or, in any event, as the Contracting Officer shall direct upon completion or termination of the contract.

- (b) Contractor-owned records. The following records are considered the property of the Contractor and are not within the scope of paragraph (a) of this clause. However, records may be audited by DOE under the clause in Section I entitled "Audit and Records - Negotiation."
- (1) Employment-related records (including but not limited to the following: worker's compensation files; employee relations records, records on salary and employee benefits; drug testing records, labor negotiation records; records on ethics, employee concerns, and other employee related investigations conducted under an expectation of confidentiality; employee assistance program records; and personnel (medical/health-related records and similar files) and non-employee patient medical/health-related records, except for those records described by the contract as being maintained in Privacy Act systems of records as published in Federal Register system notices by DOE;
 - (2) Confidential Contractor financial information, and correspondence between the Contractor and other segments of the Contractor;
 - (3) Records relating to any procurement action by the Contractor; and
 - (4) Legal records, including legal opinions, litigation files, and documents covered by the attorney-client and attorney work product privileges.
- (c) Contract completion or termination. In the event of completion or termination of this contract, copies of any of the Contractor-owned records identified in paragraph (b) of this clause, upon the request of the Government, shall be delivered to DOE or its designees, including successor contractors. Upon delivery, title to such records shall vest in DOE or its designees, and such records shall be protected in accordance with applicable Federal laws (including the Privacy Act), as appropriate.
- (d) Inspection, copying, and audit of records. All records acquired or generated by the Contractor under this contract in the possession of the Contractor, including those described at paragraph (b) of this clause, shall be subject to inspection, copying, and audit by the Government or its designees at all reasonable times, and the Contractor shall afford the Government or its designees reasonable facilities for such inspection, copying, and audit; provided, however, that upon request by the Contracting Officer, the Contractor shall deliver such records to a location specified by the Contracting Officer for inspection, copying, and audit. The Government or its designees shall use such records in accordance with applicable Federal laws (including the Privacy Act), as appropriate.
- (e) Applicability. Paragraphs (b), (c), and (d) of this clause apply to all records without regard to the date or origination of such records.
- (f) Records retention/disposition standards. Special records retention standards, described in DOE Order 200.1, Information Management Program, as directed by the National Archives and Records Administration in 36 CFR 1200, are applicable for the classes of Government

owned records as described in paragraph (a) above. Records will be destroyed as appropriate based on guidance directed in 36 CFR 1200 or as directed by the Contracting Officer.

- (g) As directed by the Contracting Officer, the Contractor shall grant access to all DOE records in its possession as may be required in conduct of normal DOE business. If any inspection or evaluation is made by the Government on the premises of the Contractor or a subcontractor, the Contractor shall provide and shall require its subcontractors provide all reasonable facilities and assistance for the convenience of the Government representatives in the performance of their duties.
- (h) Subcontracts. The Contractor shall include the requirements of this clause in all subcontracts.

H.29 Transition Activities (APR 2009)

- (a) The Contractor will commence Transition Activities on the effective date of the contract and complete activities described in this section (to the extent identified in the Contractor's proposal) within 35 to 60 days, after contract award, except as otherwise authorized by the Contracting Officer. The Contractor shall coordinate its activities with DOE and the incumbent contractor so as to accomplish these activities in a manner that will provide an effective transition of personnel and work activities while minimizing the cost of this effort. It is currently estimated that Transition Activities will be completed within in sixty days after contract award. The contractor shall, working with DOE and the incumbent, propose and negotiate a tri-party transfer agreement which identifies the resolution of all matters associated with assuming operations of the TWPC. After completion of the following actions and such other Transition Activities as may be authorized by the Contracting Officer, the Contractor shall advise the Contracting Officer that it is ready to assume full responsibility for the TWPC. Upon receipt of written notification from the Contracting Officer that DOE considers the Transition Activities satisfactorily complete, the Contractor shall assume full responsibility for the TWPC, effective 12:01 A.M., the next day.
 - (1) Facility Operations. Complete the activities that will allow the contractor to conduct facility operations, including nuclear facility operations, and assume regulatory responsibility.
 - (2) Management Systems. Analyze and initiate enhancements, if needed, to the existing management systems to assure system adequacy (e.g., Integrated Safety Management, Integrated Safeguards and Security Management, Finance, Property, Procurement, Information Management, Life Cycle Asset Management, Human Resources, etc)
 - (3) ARRA Accounting and Billing Systems. The Contractor must establish accounting and billing systems which adequately segregates total costs incurred under different funding sources, including funds received under the American Recovery and Reinvestment Act (ARRA) of 2009. This should include an equitable distribution of indirect costs in accordance with the FAR and among different funding sources. ARRA funding must have its own final cost objectives. DOE has conducted an accounting and billing system audit and has determined its adequacy. The Contracting Officer may terminate the contract for failure to establish the accountability requirements of ARRA funding at no cost to the Government.

- (4) Assignment of Existing Agreements. Initiate and complete the planning to assume the responsibility for existing regulatory (e.g., environmental permits) and commercial agreements (e.g., Memorandums of Understanding, subcontracts, purchase orders, leases, etc.) to be assigned to the Contractor by the incumbent, or otherwise taken over by the Contractor.
 - (5) Joint Reconciliation Property Inventory. Initiate and complete a joint reconciliation property inventory with the incumbent.
 - (6) Right of First Refusal. Subject to the availability of funds and need, the Contractor shall offer employment to all incumbent employees (other than managerial and supervisory employees) in accordance with the H clause entitled Nondisplacement of Qualified Worker, who, as of the date of Contract award, are in good standing and are Regular or Part-time employees.
- (b) The Contractor shall utilize any government furnished facilities and equipment that are available in order to minimize costs. The Contractor may, subject to agreement with the incumbent contractor, utilize incumbent contractor personnel on a loaned basis or arrange for early transition of employees to the contractor as appropriate.
- (c) The Contractor agrees to perform the activities set forth in paragraph (a) above, including relocation of Employee Relocations (prime or subcontractor(s)) as described in its Cost Proposal, at an allowable cost not to exceed \$373,000. In the event the actual cost of said activities exceeds such amount, including any costs for relocation of employees (prime or subcontractor(s)) incurred after the conclusion of the transition period, Contractor agrees that it will be solely responsible for costs greater than said amount.

H.30 Advance Understandings Regarding Items Of Unallowable Costs And Other Matters

Allowable costs under this Contract shall be determined according to the requirements of FAR 52.232-22, Limitation of Funds. For purposes of effective Contract implementation, certain items of cost are being specifically identified below as unallowable under this Contract to the extent indicated:

ITEMS OF UNALLOWABLE COSTS:

- (a) Cost of transition activities, including personnel relocation cost incurred during and after the transition period, in excess of the contractor's proposed cost identified in clause H.29 (c).
- (b) Following the transition period, Temporary Duty (TDY) Travel Allowances are not allowable costs with respect to employees employed under the predecessor contractor or subcontractor unless approved in writing by the Contracting Officer. This applies to employees that were hired, or provided a right of first refusal of employment under this contract, in positions for which employees are qualified,
- (c) Following the transition period, all TDY travel allowances that have not been preapproved in writing by the Contracting Officer will be unallowable costs.

H.31 H999 Special Provisions Relating to Work Funded under American Recovery and Reinvestment Act of 2009 (Feb 2009)

Preamble:

Work performed under this contract will be funded, in whole or in part, with funds appropriated by the American Recovery and Reinvestment Act of 2009, Pub. L. 111-5,

(Recovery Act or Act). The Recovery Act's purposes are to stimulate the economy and to create and retain jobs.

Contractors should begin planning activities for their first tier subcontractors, including obtaining a DUNS number (or updating the existing DUNS record), and registering with the Central Contractor Registration (CCR).

Be advised that Recovery Act funds can be used in conjunction with other funding as necessary to complete projects, but tracking and reporting must be separate to meet the reporting requirements of the Recovery Act and related Guidance. For projects funded by sources other than the Recovery Act, Contractors should plan to keep separate records for Recovery Act funds and to ensure those records comply with the requirements of the Act.

The Government has not fully developed the implementing instructions of the Recovery Act, particularly concerning the how and where for the new reporting requirements. The Contractor will be provided these details as they become available. The Contractor must comply with all requirements of the Act. If the contractor believes there is any inconsistency between Recovery Act requirements and current contract requirements, the issues will be referred to the Contracting Officer for reconciliation.

Be advised that special provisions may apply to projects funded by the Act relating to:

- Reporting, tracking and segregation of incurred costs;
- Reporting on job creation and preservation;
- Publication of information on the Internet;
- Protecting whistleblowers; and
- Requiring prompt referral of evidence of a false claim to the Inspector General.

Definitions:

For purposes of this clause, "Covered Funds" means funds expended or obligated from appropriations under the American Recovery and Reinvestment Act of 2009, Pub. L. 111-5. Covered Funds will have special accounting codes and will be identified as Recovery Act funds in the contract and/or modification using Recovery Act funds. Covered Funds must be reimbursed by September 30, 2015.

Non-Federal employer means any employer with respect to Covered Funds – the contractor or subcontractor, as the case may be, if the contractor or subcontractor is an employer; and any professional membership organization, certification of other professional body, any agent or licensee of the Federal government, or any person acting directly or indirectly in the interest of an employer receiving Covered Funds; or with respect to Covered Funds received by a State or local government, the State or local government receiving the funds and any contractor or subcontractor receiving the funds and any contractor or subcontractor of the State or local government; and does not mean any department, agency, or other entity of the federal government.

A. Flow Down Provision

This clause must be included in every first-tier subcontract.

B. Segregation and Payment of Costs

Contractor must segregate the obligations and expenditures related to funding under the Recovery Act. Financial and accounting systems should be revised as necessary to segregate, track and maintain these funds apart and separate from other revenue streams. No part of the funds from the Recovery Act shall be commingled with any other funds or used for a purpose other than that of making payments for costs allowable for Recovery Act projects. Where Recovery Act funds are authorized to be used in conjunction with other funding to complete projects, tracking and reporting must be separate from the original funding source to meet the reporting requirements of the Recovery Act and OMB Guidance.

Invoices must clearly indicate the portion of the requested payment that is for work funded by the Recovery Act.

C. Prohibition on Use of Funds

None of the funds provided under this agreement derived from the American Recovery and Reinvestment Act of 2009, Pub. L. 111-5, may be for any casino or other gambling establishment, aquarium, zoo, golf course, or swimming pool.

D. Wage Rates

All laborers and mechanics employed by contractors and subcontractors on projects funded directly by or assisted in whole or in part by and through the Federal Government pursuant to the American Recovery and Reinvestment Act of 2009, Pub. L. 111-5, shall be paid wages at rates not less than those prevailing on projects of a character similar in the locality as determined by the Secretary of Labor in accordance with subchapter IV of chapter 31 of title 40, United States Code. With respect to the labor standards specified in this section, the Secretary of Labor shall have the authority and functions set forth in Reorganization Plan numbered 14 of 1950 (64 Stat. 1267, 5 U.S.C. App.) and section 3145 of title 40 United States Code. See <http://www.dol.gov/esa/whd/contracts/dbra.htm> .

E. Publication

Information about this agreement will be published on the Internet and linked to the website www.recovery.gov, maintained by the Accountability and Transparency Board (The Board). The Board may exclude posting contractual or other information on the website on a case-by-case basis when necessary to protect national security or to protect information that is not subject to disclosure under sections 552 and 552a of title 5, United States Code.

F. Registration requirements

Contractor shall ensure that all first-tier subcontractors have a DUNS number and are registered in the Central Contractor Registration (CCR) no later than the date the first report is due under the Section I. clause entitled "52.204-11 American Recovery and Reinvestment Act – Reporting Requirements (MAR 2009).

G. Utilization of Small Business

Contractor shall to the maximum extent practicable give a preference to small business in the award of subcontracts for projects funded by Recovery Act dollars.

H.32 Baseline and Reporting Requirements for Work Performed under the Recovery Act (Revised)

This clause defines the unique requirements for the contractor's project management baseline and associated reporting requirements to address the contract performance requirements as implemented in Section C. Statement of Work to be performed and funded under the provisions of the American Recovery and Reinvestment Act of 2009 (Recovery Act).

During the transition period, the contractor shall develop and deliver to the Contracting Officer the following:

- a. Within 30 days after effective date of the contract, the contractor shall submit a proposed Performance Baseline, in accordance with DOE Order 413.3A and the H Clause entitled Project Management Systems and Reporting Requirements, for the complete work specified in Section C. Statement of Work. This baseline shall use control accounts that will be made up of work packages. The WBS elements at the lowest level should roll up within the WBS structure and clearly identify the entire work to be performed. The WBS shall clearly distinguish all non-Recovery Act work from all Recovery Act work. The proposed Performance Baseline shall include the following:
 1. Product-oriented Work Breakdown Structure (WBS) and WBS dictionary in alignment with the statement of work to include performance of Recovery Act work totally within distinctly defined, separately tracked and uniquely managed WBS elements;
 2. Monthly spend plan consistent with the statement of work, completely segregating the non-Recovery Act work from the Recovery Act funded portions of the statement of work;
 3. Crosswalk of statement of work WBS elements and associated planned milestones, metrics, and estimated costs (at the 80% confidence level), at the Activity Building Block (ABB) level, between the current base program/project Near-Term Baseline (NTB) and/or Out-year Planning Estimate Range (OPER) and the Recovery Act work;
 4. Milestone list including, but not limited to, major hiring actions that create newly "created" or "retained" jobs by the contractor or first tier subcontractors in accordance with the clause in Section H, entitled "Special provisions relating to work funded under American Recovery and Reinvestment Act of 2009, key starts and completions, enforceable regulatory dates, approval of key regulatory decisions, project critical decisions, delivery of critical Government Furnished Services and Items; and
 5. A network logic schedule utilizing Primavera will be developed at the activity level for each control account which includes milestones. The schedule must be resource loaded and coded to allow summarization of lower level activities through the control account for the complete scope, of work, including the Recovery Act work; and,
 6. The proposed Performance Baseline shall also include the planned quarterly summary of jobs "created" or "retained" by the contractor and first tier

subcontractors as defined in the Section H clause entitled “Special provisions relating to work funded under American Recovery and Reinvestment Act of 2009.”

- b. Deliverables supporting the performance baseline shall include all deliverables required under existing contract requirements, those Recovery Act deliverable and reporting requirements specified in the section H clause entitled “Special provisions relating to work funded under American Recovery and Reinvestment Act of 2009” and Section J - Attachment A. For all common deliverables, the data shall be clearly segregated and distinguished between non-Recovery Act work and Recovery Act work, as well as summing to complete contract totals.

These deliverables shall be submitted to the Contracting Officer to support DOE review and baseline approval. The Contracting Officer may identify other documents as needed to support project reviews and audits.

The Performance Baseline is subject to independent project review (IPR) and certification before approval by the government. The contractor shall support resolution of IPR or External Independent Review (EIR) corrective actions for the performance baseline submitted.

- c. During the transition period, the contractor shall determine the budgeted cost of work scheduled (BCWS)/earned value (EV) for budgeted cost for work performed (BCWP)/planned value (PV) on a monthly basis utilizing measurable units associated with each activity in the schedule (e.g., square foot reduction, number of TRU shipments, foot print reduction, etc.), as appropriate, that will allow the reporting of the contractor’s progress in accordance with the reporting requirements specified in the clause in Section H entitled “Special provisions relating to work funded under American Recovery and Reinvestment Act.” The associated actual cost of work performed (ACWP)/actual cost (AC), cost and schedule variances and performance indices, and variance analyses shall be reported monthly. Performance against the Recovery Act performance baseline shall be tracked separately from other work under the contract funded by other appropriations.

d. Reporting Requirements

Within 30 days after the effective date of the contract, the contractor shall begin reporting against the established performance baseline in accordance with the reporting requirements specified under existing contract requirements, those reporting requirements specified in the section H. clause entitled “Special provisions relating to work funded under American Recovery and Reinvestment Act of 2009, *and those Recovery Act-unique deliverables listed below.* Performance against the Recovery Act work shall be tracked and reported separately from other work under the contract funded by other appropriations.

These reports shall be provided to the Contracting Officer on a monthly basis.

1. Contract Performance Report (Refer to OMB No. 0704-0188 or DD FORM 2734/1, MAR 05): Format 1 - Work Breakdown Structure, Format 3 - Baseline, and Format 5 - Explanations and Problem Analyses.
2. A Milestone report from Primavera reflecting status of all milestones being reported with columns for the scope, original planned date, current planned date, and the actual date the milestone was completed.

3. A funds management report by Budgeting & Reporting (B&R) codes that identifies the amount of funds obligated to the contract and the amount of funds obligated to the contractor, and committed and expended by the contractor.

H. 33 Addition and Alterations to Implement Executive Order 13423, Strengthening Federal Environmental, Energy, and Transportation Management and its Implementing Instructions

This contract involves contractor operation of Government-owned facilities and/or vehicles and the provisions of Executive Order 13423 are applicable to the Contractor to the same extent they would be applicable if the Government were operating the facilities or vehicles. Information on the requirements of the Executive Order and its Implementing Instructions may be found at http://ofee.gov/Executive Order/Executive Order13423_main.asp. This requirement includes the Electronics Stewardship requirements of Implementing Instruction XII. When acquiring desktop or laptop computers and computer monitors, the Contractor shall acquire Electronic Product Environmental Assessment Tool registered products conforming to IEEE 1680-2006 Standard and ranked at least bronze, provided such products are life cycle cost efficient and meet applicable performance requirements. Information on EPEAT-registered computer products is available at www.epeat.net.

H.34 Partnering

In order to most effectively accomplish this Contract, the Government proposes to form a cohesive partnership with the Contractor. It is a way of doing business based upon trust, dedication to common goals, and an understanding and respect of each other's expectations and values. The process creates a teambuilding environment which fosters better communication and problem solving, and a mutual trust between the participants. These key elements create a climate in which issues can be raised, openly discussed, and jointly settled, without getting into an adversarial relationship. In this way, partnering is a mindset, and a way of doing business. It is an attitude toward working as a team, and achieving successful project execution. This endeavor seeks an environment that nurtures team building cooperation, and trust between the Government and the Contractor. The partnership strives to draw on the strengths of each organization in an effort to achieve a quality project done right the first time, within budget, and on schedule.

Participation in the partnership will be totally voluntary by parties. Any cost associated with effectuating this partnership will be agreed to by both parties during Contract performance. The U.S. Army Corps of Engineers has championed partnering and their guidelines will be utilized in organizing partnering meetings and establishing a partnering agreement."

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SECTION I - CONTRACT CLAUSES

I.1 52.202-1 Definitions (JUL 2004) (as amended DEAR 952.202-1 APR 2002)

- (a) When a solicitation provision or contract clause uses a word or term that is defined in the Federal Acquisition Regulation (FAR), the word or term has the same meaning as the definition in FAR 2.101 in effect at the time the solicitation was issued, unless—
- (1) The solicitation, or amended solicitation, provides a different definition;
 - (2) The contracting parties agree to a different definition;
 - (3) The part, subpart, or section of the FAR where the provision or clause is prescribed provides a different meaning; or
 - (4) The word or term is defined in FAR Part 31, for use in the cost principles and procedures.
- (b) The FAR Index is a guide to words and terms the FAR defines and shows where each definition is located. The FAR Index is available via the Internet at <http://www.acqnet.gov> at the end of the FAR, after the FAR Appendix.
- (c) Head of Agency means:
- The Secretary;
 - Deputy Secretary;
 - Under Secretaries of the Department of Energy; and
 - The Chairman, Federal Energy Regulatory Commission. (DEAR)
- (d) The term DOE means the Department of Energy, FERC means the Federal Energy Regulatory Commission, and NNSA means the National Nuclear Security Administration.
- (e) The term Senior Procurement Executive means, for DOE:
- Department of Energy—Director, Office of Procurement and Assistance Management, DOE;
- National Nuclear Security Administration--Administrator for Nuclear Security, NNSA; and
- Federal Energy Regulatory Commission--Chairman, FERC.

I.2 52.203-3 Gratuities (APR 1984)

- (a) The right of the Contractor to proceed may be terminated by written notice if, after notice and hearing, the agency head or a designee determines that the Contractor, its agent, or another representative—
- (1) Offered or gave a gratuity (e.g., an entertainment or gift) to an officer, official, or employee of the Government; and
 - (2) Intended, by the gratuity, to obtain a contract or favorable treatment under a contract.
- (b) The facts supporting this determination may be reviewed by any court having lawful jurisdiction.

- (c) If this contract is terminated under paragraph (a) above, the Government is entitled –
- (1) To pursue the same remedies as in a breach of the contract; and
 - (2) In addition to any other damages provided by law, to exemplary damages of not less than 3 nor more than 10 times the cost incurred by the Contractor in giving gratuities to the person concerned, as determined by the agency head or a designee. (This subparagraph (c)(2) is applicable only if this contract uses money appropriated to the Department of Defense.)
- (d) The rights and remedies of the Government provided in this clause shall not be exclusive and are in addition to any other rights and remedies provided by law or under this contract.

I.3 52.203-5 Covenant Against Contingent Fees (APR 1984)

- (a) The Contractor warrants that no person or agency has been employed or retained to solicit or obtain this contract upon an agreement or understanding for a contingent fee, except a bona fide employee or agency. For breach or violation of this warranty, the Government shall have the right to annul this contract without liability or, in its discretion, to deduct from the contract price or consideration, or otherwise recover, the full amount of the contingent fee.
- (b) "Bona fide agency," as used in this clause, means an established commercial or selling agency, maintained by a contractor for the purpose of securing business, that neither exerts nor proposes to exert improper influence to solicit or obtain Government contracts nor holds itself out as being able to obtain any Government contract or contracts through improper influence.

"Bona fide employee," as used in this clause, means a person, employed by a contractor and subject to the contractor's supervision and control as to time, place, and manner of performance, who neither exerts nor proposes to exert improper influence to solicit or obtain Government contracts nor holds out as being able to obtain any Government contract or contracts through improper influence.

"Contingent fee", as used in this clause, means any commission, percentage, brokerage, or other fee that is contingent upon the success that a person or concern has in securing a Government contract.

"Improper influence," as used in this clause, means any influence that induces or tends to induce a Government employee or officer to give consideration or to act regarding a Government contract on any basis other than the merits of the matter.

I.4 52.203-6 Restrictions on Subcontractor Sales to the Government (SEP 2006)

- (a) Except as provided in (b) of this clause, the Contractor shall not enter into any agreement with an actual or prospective subcontractor, nor otherwise act in any manner, which has or may have the effect of restricting sales by such subcontractors directly to the Government of any item or process (including computer software) made or furnished by the subcontractor under this contract or under any follow-on production contract.
- (b) The prohibition in (a) of this clause does not preclude the Contractor from asserting rights that are otherwise authorized by law or regulation.

- (c) The Contractor agrees to incorporate the substance of this clause, including this paragraph (c), in all subcontracts under this contract which exceed the simplified acquisition threshold.

I.5 52.203-7 Anti-Kickback Procedures (JUL 1995)

- (a) Definitions.

"Kickback," as used in this clause, means any money, fee, commission, credit, gift, gratuity, thing of value, or compensation of any kind which is provided, directly or indirectly, to any prime Contractor, prime Contractor employee, subcontractor, or subcontractor employee for the purpose of improperly obtaining or rewarding favorable treatment in connection with a prime contractor in connection with a subcontract relating to a prime contract.

"Person," as used in this clause, means a corporation, partnership, business association of any kind, trust, joint-stock company, or individual.

"Prime contract," as used in this clause, means a contract or contractual action entered into by the United States for the purpose of obtaining supplies, materials, equipment, or services of any kind.

"Prime Contractor," as used in this clause, means a person who has entered into a prime contract with the United States.

"Prime Contractor employee," as used in this clause, means any officer, partner, employee, or agent of a prime Contractor.

"Subcontract," as used in this clause, means a contract or contractual action entered into by a prime Contractor or subcontractor for the purpose of obtaining supplies, materials, equipment, or services of any kind under a prime contract.

"Subcontractor," as used in this clause, (1) means any person, other than the prime Contractor, who offers to furnish or furnishes any supplies, materials, equipment, or services of any kind under a prime contract or a subcontract entered into in connection with such prime contract, and (2) includes any person who offers to furnish or furnishes general supplies to the prime Contractor or a higher tier subcontractor.

"Subcontractor employee," as used in this clause, means any officer, partner, employee, or agent of a subcontractor.

- (b) The Anti-Kickback Act of 1986 (41 U.S.C. 51-58) (the Act), prohibits any person from -

- (1) Providing or attempting to provide or offering to provide any kickback;
- (2) Soliciting, accepting, or attempting to accept any kickback; or
- (3) Including, directly or indirectly, the amount of any kickback in the contract price charged by a prime Contractor to the United States or in the contract price charged by a subcontractor to a prime Contractor or higher tier subcontractor.

- (c) (1) The Contractor shall have in place and follow reasonable procedures designed to prevent and detect possible violations described in paragraph (b) of this clause in its own operations and direct business relationships.

- (2) When the Contractor has reasonable grounds to believe that a violation described in paragraph (b) of this clause may have occurred, the Contractor shall promptly report in writing the possible violation. Such reports shall be made to the inspector general of the contracting agency, the head of the contracting agency if the agency does not have an inspector general, or the Department of Justice.
- (3) The Contractor shall cooperate fully with any Federal agency investigating a possible violation described in paragraph (b) of this clause.
- (4) The Contracting Officer may
 - (i) offset the amount of the kickback against any monies owed by the United States under the prime contract and/or
 - (ii) direct that the Prime Contractor withhold, from sums owed a subcontractor under the prime contract, the amount of any kickback. The Contracting Officer may order the monies withheld under subdivision (c)(4)(ii) of this clause be paid over to the Government unless the Government has already offset those monies under subdivision (c)(4)(i) of this clause. In either case, the Prime Contractor shall notify the Contracting Officer when the monies are withheld.
- (5) The Contractor agrees to incorporate the substance of this clause, including this subparagraph (c)(5) but excepting subparagraph (c)(1), in all subcontracts under this contract which exceed \$100,000.

I.6 52.203-8 Cancellation, Rescission, and Recovery of Funds for Illegal or Improper Activity (JAN 1997)

- (a) If the Government receives information that a contractor or a person has engaged in conduct constituting a violation of subsection (a), (b), (c), or (d) of Section 27 of the Office of Federal Procurement Policy Act (41 U.S.C. 423) (the Act), as amended by section 4304 of the National Defense Authorization Act for Fiscal Year 1996 (Pub. L. 104-106), the Government may—
 - (1) Cancel the solicitation, if the contract has not yet been awarded or issued; or
 - (2) Rescind the contract with respect to which—
 - (i) The Contractor or someone acting for the Contractor has been convicted for an offense where the conduct constitutes a violation of subsection 27 (a) or (b) of the Act for the purpose of either—
 - (A) Exchanging the information covered by such subsections for anything of value; or
 - (B) Obtaining or giving anyone a competitive advantage in the award of a Federal agency procurement contract; or
 - (ii) The head of the contracting activity has determined, based upon a preponderance of the evidence, that the Contractor or someone acting for the Contractor has engaged in conduct constituting an offense punishable under subsection 27(e)(1) of the Act.

- (b) If the Government rescinds the contract under paragraph (a) of this clause, the Government is entitled to recover, in addition to any penalty prescribed by law, the amount expended under the contract.
- (c) The rights and remedies of the Government specified herein are not exclusive, and are in addition to any other rights and remedies provided by law, regulation, or under this contract.

I.7 52.203-10 Price or Fee Adjustment for Illegal or Improper Activity (JAN 1997)

- (a) The Government, at its election, may reduce the price of a fixed-price type contract and the total cost and fee under a cost-type contract by the amount of profit or fee determined as set forth in paragraph (b) of this clause if the head of the contracting activity or designee determines that there was a violation of subsection 27 (a), (b), or (c) of the Office of Federal Procurement Policy Act, as amended (41 U.S.C. 423), as implemented in section 3.104 of the Federal Acquisition Regulation.
- (b) The price or fee reduction referred to in paragraph (a) of this clause shall be:
 - (1) For cost-plus-fixed-fee contracts, the amount of the fee specified in the contract at the time of award;
 - (2) For cost-plus-incentive-fee contracts, the target fee specified in the contract at the time of award, notwithstanding any minimum fee or "fee floor" specified in the contract.
 - (3) For cost-plus-award-fee contracts:
 - (i) The base fee established in the contract at the time of contract award;
 - (ii) If no base fee is specified in the contract, 30 percent of the amount of each award fee otherwise payable to the Contractor for each award fee evaluation period or at each award fee determination point.
 - (4) For fixed-price-incentive contracts, the Government may:
 - (i) Reduce the contract target price and contract target profit both by an amount equal to the initial target profit specified in the contract at the time of contract award; or
 - (ii) If an immediate adjustment to the contract target price and contract target profit would have a significant adverse impact on the incentive price revision relationship under the contract, or adversely affect the contract financing provisions, the Contracting Officer may defer such adjustment until establishment of the total final price of the contract. The total final price established in accordance with the incentive price revision provisions of the contract shall be reduced by an amount equal to the initial target profit specified in the contract at the time of contract award and such reduced price shall be the total final contract price.
 - (5) For firm-fixed-price contracts, by 10 percent of the initial contract price or a profit amount determined by the Contracting Officer from records or documents in existence prior to the date of the contract award.
- (c) The Government may, at its election, reduce a prime contractor's price or fee in accordance with the procedures of paragraph (b) of this clause for violations of the Act by its subcontractors by an amount not to exceed the amount of profit or fee reflected in the subcontract at the time the subcontract was first definitively priced.
- (d) In addition to the remedies in paragraphs (a) and (c) of this clause, the Government may terminate this contract for default. The rights and remedies of the Government specified herein are not exclusive, and are in addition to any other rights and remedies provided by law or under this contract.

I.8 52.203-12 Limitation on Payments to Influence Certain Federal Transactions (SEPT 2007)

(a) *Definitions.* As used in this clause—

“Agency” means “executive agency” as defined in Federal Acquisition Regulation (FAR) [2.101](#).

“Covered Federal action” means any of the following actions:

- (1) Awarding any Federal contract.
- (2) Making any Federal grant.
- (3) Making any Federal loan.
- (4) Entering into any cooperative agreement.
- (5) Extending, continuing, renewing, amending, or modifying any Federal contract, grant, loan, or cooperative agreement.

“Indian tribe” and “tribal organization” have the meaning provided in section 4 of the Indian Self-Determination and Education Assistance Act ([25 U.S.C. 450b](#)) and include Alaskan Natives.

“Influencing or attempting to influence” means making, with the intent to influence, any communication to or appearance before an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any covered Federal action.

“Local government” means a unit of government in a State and, if chartered, established, or otherwise recognized by a State for the performance of a governmental duty, including a local public authority, a special district, an intrastate district, a council of governments, a sponsor group representative organization, and any other instrumentality of a local government.

“Officer or employee of an agency” includes the following individuals who are employed by an agency:

- (1) An individual who is appointed to a position in the Government under Title 5, United States Code, including a position under a temporary appointment.
- (2) A member of the uniformed services, as defined in subsection 101(3), Title 37, United States Code.
- (3) A special Government employee, as defined in section 202, Title 18, United States Code.
- (4) An individual who is a member of a Federal advisory committee, as defined by the Federal Advisory Committee Act, Title 5, United States Code, appendix 2.

“Person” means an individual, corporation, company, association, authority, firm, partnership, society, State, and local government, regardless of whether such entity is operated for profit, or not for profit. This term excludes an Indian tribe, tribal organization, or any other Indian organization eligible to receive Federal contracts, grants, cooperative agreements, or loans from an agency, but only with respect to expenditures by such tribe or organization that are made for purposes specified in paragraph (b) of this clause and are permitted by other Federal law.

“Reasonable compensation” means, with respect to a regularly employed officer or employee of any person, compensation that is consistent with the normal compensation for such officer or employee for work that is not furnished to, not funded by, or not furnished in cooperation with the Federal Government.

“Reasonable payment” means, with respect to professional and other technical services, a payment in an amount that is consistent with the amount normally paid for such services in the private sector.

“Recipient” includes the Contractor and all subcontractors. This term excludes an Indian tribe, tribal organization, or any other Indian organization eligible to receive Federal contracts, grants, cooperative agreements, or loans from an agency, but only with respect to expenditures by such tribe or organization that are made for purposes specified in paragraph (b) of this clause and are permitted by other Federal law.

“Regularly employed” means, with respect to an officer or employee of a person requesting or receiving a Federal contract, an officer or employee who is employed by such person for at least 130 working days within 1 year immediately preceding the date of the submission that initiates agency consideration of such person for receipt of such contract. An officer or employee who is employed by such person for less than 130 working days within 1 year immediately preceding the date of the submission that initiates agency consideration of such person shall be considered to be regularly employed as soon as he or she is employed by such person for 130 working days.

“State” means a State of the United States, the District of Columbia, or an outlying area of the United States, an agency or instrumentality of a State, and multi-State, regional, or interstate entity having governmental duties and powers.

- (b) *Prohibition.* [31 U.S.C. 1352](#) prohibits a recipient of a Federal contract, grant, loan, or cooperative agreement from using appropriated funds to pay any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any covered Federal actions. In accordance with [31 U.S.C. 1352](#) the Contractor shall not use appropriated funds to pay any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the award of this contractor the extension, continuation, renewal, amendment, or modification of this contract.
- (1) The term *appropriated funds* does not include profit or fee from a covered Federal action.
 - (2) To the extent the Contractor can demonstrate that the Contractor has sufficient monies, other than Federal appropriated funds, the Government will assume that these other monies were spent for any influencing activities that would be unallowable if paid for with Federal appropriated funds.
- (c) *Exceptions.* The prohibition in paragraph (b) of this clause does not apply under the following conditions:
- (1) *Agency and legislative liaison by Contractor employees.*
 - (i) Payment of reasonable compensation made to an officer or employee of the Contractor if the payment is for agency and legislative liaison activities not directly related to this contract. For purposes of this paragraph, providing any information specifically requested by an agency or Congress is permitted at any time.
 - (ii) Participating with an agency in discussions that are not related to a specific solicitation for any covered Federal action, but that concern—
 - (A) The qualities and characteristics (including individual demonstrations) of the person’s products or services, conditions or terms of sale, and service capabilities; or
 - (B) The application or adaptation of the person’s products or services for an agency’s use.

- (iii) Providing prior to formal solicitation of any covered Federal action any information not specifically requested but necessary for an agency to make an informed decision about initiation of a covered Federal action;
 - (iv) Participating in technical discussions regarding the preparation of an unsolicited proposal prior to its official submission; and
 - (v) Making capability presentations prior to formal solicitation of any covered Federal action by persons seeking awards from an agency pursuant to the provisions of the Small Business Act, as amended by Pub. L. 95-507, and subsequent amendments.
- (2) *Professional and technical services.*
- (i) A payment of reasonable compensation made to an officer or employee of a person requesting or receiving a covered Federal action or an extension, continuation, renewal, amendment, or modification of a covered Federal action, if payment is for professional or technical services rendered directly in the preparation, submission, or negotiation of any bid, proposal, or application for that Federal action or for meeting requirements imposed by or pursuant to law as a condition for receiving that Federal action.
 - (ii) Any reasonable payment to a person, other than an officer or employee of a person requesting or receiving a covered Federal action or an extension, continuation, renewal, amendment, or modification of a covered Federal action if the payment is for professional or technical services rendered directly in the preparation, submission, or negotiation of any bid, proposal, or application for that Federal action or for meeting requirements imposed by or pursuant to law as a condition for receiving that Federal action. Persons other than officers or employees of a person requesting or receiving a covered Federal action include consultants and trade associations.
 - (iii) As used in paragraph (c)(2) of this clause, "professional and technical services" are limited to advice and analysis directly applying any professional or technical discipline (for examples, see FAR 3.803(a)(2)(iii)).
 - (iv) Requirements imposed by or pursuant to law as a condition for receiving a covered Federal award include those required by law or regulation and any other requirements in the actual award documents.
- (3) Only those communications and services expressly authorized by paragraphs (c)(1) and (2) of this clause are permitted.
- (d) *Disclosure.*
- (1) If the Contractor did not submit OMB Standard Form LLL, Disclosure of Lobbying Activities, with its offer, but registrants under the Lobbying Disclosure Act of 1995 have subsequently made a lobbying contact on behalf of the Contractor with respect to this contract, the Contractor shall complete and submit OMB Standard Form LLL to provide the name of the lobbying registrants, including the individuals performing the services.
 - (2) If the Contractor did submit OMB Standard Form LLL disclosure pursuant to paragraph (d) of the provision at FAR 52.203-11, Certification and Disclosure Regarding Payments to Influence Certain Federal Transactions, and a change occurs that affects Block 10 of the OMB Standard Form LLL (name and address of lobbying registrant or individuals performing services), the Contractor shall, at the end of the calendar quarter in which the change occurs, submit to the Contracting Officer within 30 days an updated disclosure using OMB Standard Form LLL.
- (e) *Penalties.*
- (1) Any person who makes an expenditure prohibited under paragraph (b) of this clause or who fails to file or amend the disclosure to be filed or amended by paragraph (d) of this clause shall be subject to civil penalties as provided for by 31 U.S.C. 1352. An imposition of a civil penalty does not prevent the Government from seeking any other remedy that may be applicable.
 - (2) Contractors may rely without liability on the representation made by their subcontractors in the certification and disclosure form.
- (f) *Cost allowability.* Nothing in this clause makes allowable or reasonable any costs which would otherwise be unallowable or unreasonable. Conversely, costs made specifically

unallowable by the requirements in this clause will not be made allowable under any other provision.

(g) *Subcontracts.*

- (1) The Contractor shall obtain a declaration, including the certification and disclosure in paragraphs (c) and (d) of the provision at FAR 52.203-11, Certification and Disclosure Regarding Payments to Influence Certain Federal Transactions, from each person requesting or receiving a subcontract exceeding \$100,000 under this contract. The Contractor or subcontractor that awards the subcontract shall retain the declaration.
- (2) A copy of each subcontractor disclosure form (but not certifications) shall be forwarded from tier to tier until received by the prime Contractor. The prime Contractor shall, at the end of the calendar quarter in which the disclosure form is submitted by the subcontractor, submit to the Contracting Officer within 30 days a copy of all disclosures. Each subcontractor certification shall be retained in the subcontract file of the awarding Contractor.
- (3) The Contractor shall include the substance of this clause, including this paragraph (g), in any subcontract exceeding \$100,000.

I.9 52.204-4 Printed or Copied Double-Sided on Recycled Paper (AUG 2000)

(a) Definitions. As used in this clause—

"Postconsumer material" means a material or finished product that has served its intended use and has been discarded for disposal or recovery, having completed its life as a consumer item. Postconsumer material is a part of the broader category of "recovered material." For paper and paper products, postconsumer material means "postconsumer fiber" defined by the U.S. Environmental Protection Agency (EPA) as -

- (1) Paper, paperboard, and fibrous materials from retail stores, office buildings, homes, and so forth, after they have passed through their end-usage as a consumer item, including: used corrugated boxes; old newspapers; old magazines; mixed waste paper; tabulating cards; and used cordage; or
- (2) All paper, paperboard, and fibrous materials that enter and are collected from municipal solid waste; but not
- (3) Fiber derived from printers' over-runs, converters' scrap, and over-issue publications.

"Printed or copied double-sided" means printing or reproducing a document so that information is on both sides of a sheet of paper.

"Recovered material," for paper and paper products, is defined by EPA in its Comprehensive Procurement Guideline as "recovered fiber" and means the following materials:

- (4) Postconsumer fiber; and
- (5) Manufacturing wastes such as -
 - (i) Dry paper and paperboard waste generated after completion of the papermaking process (that is, those manufacturing operations up to and including the cutting and trimming of the paper machine reel into smaller rolls or rough sheets) including: envelope cuttings, bindery trimmings, and other paper and paperboard waste resulting from printing, cutting, forming, and other converting operations;

- bag, box, and carton manufacturing wastes; and butt rolls, mill wrappers, and rejected unused stock; and
- (ii) Repulped finished paper and paperboard from obsolete inventories of paper and paperboard manufacturers, merchants, wholesalers, dealers, printers, converters, or others.
- (b) In accordance with Section 101 of Executive Order 13101 of September 14, 1998, Greening the Government through Waste Prevention, Recycling, and Federal Acquisition, the Contractor is encouraged to submit paper documents, such as offers, letters, or reports, that are printed or copied double-sided on recycled paper that meet minimum content standards specified in Section 505 of Executive Order 13101, when not using electronic commerce methods to submit information or data to the Government.
- (c) If the Contractor cannot purchase high-speed copier paper, offset paper, forms bond, computer printout paper, carbonless paper, file folders, white wove envelopes, writing and office paper, book paper, cotton fiber paper, and cover stock meeting the 30 percent postconsumer material standard for use in submitting paper documents to the Government, it should use paper containing no less than 20 percent postconsumer material. This lesser standard should be used only when paper meeting the 30 percent postconsumer material standard is not obtainable at a reasonable price or does not meet reasonable performance standards.

I.10 52.204-7 Central Contractor Registration (JUL 2006)

- (a) Definitions. As used in this clause—

“Central Contractor Registration (CCR) database” means the primary Government repository for Contractor information required for the conduct of business with the Government.

“Data Universal Numbering System (DUNS) number” means the 9-digit number assigned by Dun and Bradstreet, Inc. (D&B) to identify unique business entities.

“Data Universal Numbering System+4 (DUNS+4) number” means the DUNS number means the number assigned by D&B plus a 4-character suffix that may be assigned by a business concern. (D&B has no affiliation with this 4-character suffix.) This 4-character suffix may be assigned at the discretion of the business concern to establish additional CCR records for identifying alternative Electronic Funds Transfer (EFT) accounts (see the FAR at Subpart 32.11) for the same parent concern.

“Registered in the CCR database” means that—

- (1) The Contractor has entered all mandatory information, including the DUNS number or the DUNS+4 number, into the CCR database; and
 - (2) The Government has validated all mandatory data fields, to include validation of the Taxpayer Identification Number (TIN) with the Internal Revenue Service (IRS), and has marked the record “Active”. The Contractor will be required to provide consent for TIN validation to the Government as a part of the CCR registration process.
- (b) (1) By submission of an offer, the offeror acknowledges the requirement that a prospective awardee shall be registered in the CCR database prior to award, during performance, and through final payment of any contract, basic agreement, basic ordering agreement, or blanket purchasing agreement resulting from this solicitation.

- (2) The offeror shall enter, in the block with its name and address on the cover page of its offer, the annotation "DUNS" or "DUNS+4" followed by the DUNS or DUNS+4 number that identifies the offeror's name and address exactly as stated in the offer. The DUNS number will be used by the Contracting Officer to verify that the offeror is registered in the CCR database.
- (c) If the offeror does not have a DUNS number, it should contact Dun and Bradstreet directly to obtain one.
- (1) An offeror may obtain a DUNS number—
 - (i) If located within the United States, by calling Dun and Bradstreet at 1-866-705-5711 or via the Internet at <http://www.dnb.com>; or
 - (ii) If located outside the United States, by contacting the local Dun and Bradstreet office.
 - (2) The offeror should be prepared to provide the following information:
 - (i) Company legal business name.
 - (ii) Tradestyle, doing business, or other name by which your entity is commonly recognized.
 - (iii) Company physical street address, city, state and Zip Code.
 - (iv) Company mailing address, city, state and Zip Code (if separate from physical).
 - (v) Company telephone number.
 - (vi) Date the company was started.
 - (vii) Number of employees at your location.
 - (viii) Chief executive officer/key manager.
 - (ix) Line of business (industry).
 - (x) Company Headquarters name and address (reporting relationship within your entity).
- (d) If the Offeror does not become registered in the CCR database in the time prescribed by the Contracting Officer, the Contracting Officer will proceed to award to the next otherwise successful registered Offeror.
- (e) Processing time, which normally takes 48 hours, should be taken into consideration when registering. Offerors who are not registered should consider applying for registration immediately upon receipt of this solicitation.
- (f) The Contractor is responsible for the accuracy and completeness of the data within the CCR database, and for any liability resulting from the Government's reliance on inaccurate or incomplete data. To remain registered in the CCR database after the initial registration, the Contractor is required to review and update on an annual basis from the date of initial registration or subsequent updates its information in the CCR database to ensure it is current, accurate and complete. Updating information in the CCR does not alter the terms and conditions of this contract and is not a substitute for a properly executed contractual document.
- (g) (1) (i) If a Contractor has legally changed its business name, "doing business as" name, or division name (whichever is shown on the contract), or has transferred the assets used in performing the contract, but has not completed the necessary requirements regarding novation and change-of-name agreements in Subpart 42.12, the Contractor shall provide the responsible Contracting Officer a minimum of one business day's written notification of its intention to:

- (A) Change the name in the CCR database;
 - (B) Comply with the requirements of Subpart 42.12 of the FAR;
 - (C) Agree in writing to the timeline and procedures specified by the responsible Contracting Officer. The Contractor must provide with the notification sufficient documentation to support the legally changed name.
- (ii) If the Contractor fails to comply with the requirements of paragraph (g)(1)(i) of this clause, or fails to perform the agreement at paragraph (g)(1)(i)(C) of this clause, and, in the absence of a properly executed novation or change-of-name agreement, the CCR information that shows the Contractor to be other than the Contractor indicated in the contract will be considered to be incorrect information within the meaning of the "Suspension of Payment" paragraph of the electronic funds transfer (EFT) clause of this contract.
- (2) The Contractor shall not change the name or address for EFT payments or manual payments, as appropriate, in the CCR record to reflect an assignee for the purpose of assignment of claims (see FAR Subpart 32.8, Assignment of Claims). Assignees shall be separately registered in the CCR database. Information provided to the Contractor's CCR record that indicates payments, including those made by EFT, to an ultimate recipient other than that Contractor will be considered to be incorrect information within the meaning of the "Suspension of payment" paragraph of the EFT clause of this contract.
- (h) Offerors and Contractors may obtain information on registration and annual confirmation requirements via the Internet at <http://www.ccr.gov> or by calling 1-888-227-2423, or 269-961-5757.

I.11 52.204-9 Personal Identity Verification of Contractor Personnel (SEPT 2007)

- (a) The Contractor shall comply with agency personal identity verification procedures identified in the contract that implement Homeland Security Presidential Directive-12 (HSPD-12), Office of Management and Budget (OMB) guidance M-05-24 and Federal Information Processing Standards Publication (FIPS PUB) Number 201.
- (b) The Contractor shall insert this clause in all subcontracts when the subcontractor is required to have routine physical access to a Federally-controlled facility and/or routine access to a Federally-controlled information system.

I.12 52.209-6 Protecting the Government's Interest When Subcontracting with Contractors Debarred, Suspended, or Proposed for Debarment (SEP 2006)

- (a) The Government suspends or debar Contractors to protect the Government's interests. The Contractor shall not enter into any subcontract in excess of \$25,000 with a Contractor that is debarred, suspended, or proposed for debarment unless there is a compelling reason to do so.
- (b) The Contractor shall require each proposed first-tier subcontractor, whose subcontract will exceed \$25,000, to disclose to the Contractor, in writing, whether as of the time of award of the subcontract, the subcontractor, or its principals, is or is not debarred, suspended, or proposed for debarment by the Federal Government.
- (c) A corporate officer or a designee of the Contractor shall notify the Contracting Officer, in writing, before entering into a subcontract with a party that is debarred, suspended, or

proposed for debarment (see FAR 9.404 for information on the Excluded Parties List System). The notice must include the following:

- (1) The name of the subcontractor.
- (2) The Contractor's knowledge of the reasons for the subcontractor being in the Excluded Parties List System.
- (3) The compelling reason(s) for doing business with the subcontractor notwithstanding its inclusion in the Excluded Parties List System.
- (4) The systems and procedures the Contractor has established to ensure that it is fully protecting the Government's interests when dealing with such subcontractor in view of the specific basis for the party's debarment, suspension, or proposed debarment.

I.13 (Reserved)

I.14 52.215-8 Order of Precedence – Uniform Contract Format (OCT 1997)

Any inconsistency in this solicitation or contract shall be resolved by giving precedence in the following order:

- (a) The Schedule (excluding the specifications).
- (b) Representations and other instructions.
- (c) Contract clauses.
- (d) Other documents, exhibits, and attachments.
- (e) The specifications.

I.15 52.215-11 Price Reduction for Defective Cost or Pricing Data – Modifications (OCT 1997)

- (a) This clause shall become operative only for any modification to this contract involving a pricing adjustment expected to exceed the threshold for submission of cost or pricing data at FAR 15.403-4, except that this clause does not apply to any modification if an exception under FAR 15.403-1 applies.
- (b) If any price, including profit or fee, negotiated in connection with any modification under this clause, or any cost reimbursable under this contract, was increased by any significant amount because (1) the Contractor or a subcontractor furnished cost or pricing data that were not complete, accurate, and current as certified in its Certificate of Current Cost or Pricing Data, (2) a subcontractor or prospective subcontractor furnished the Contractor cost or pricing data that were not complete, accurate, and current as certified in the Contractor's Certificate of Current Cost or Pricing Data, or (3) any of these parties furnished data of any description that were not accurate, the price or cost shall be reduced accordingly and the contract shall be modified to reflect the reduction. This right to a price reduction is limited to that resulting from defects in data relating to modifications for which this clause becomes operative under paragraph (a) of this clause.
- (c) Any reduction in the contract price under paragraph (b) of this clause due to defective data from a prospective subcontractor that was not subsequently awarded the subcontract shall be limited to the amount, plus applicable overhead and profit markup, by which—
 - (1) The actual subcontract; or
 - (2) The actual cost to the Contractor, if there was no subcontract, was less than the prospective subcontract cost estimate submitted by the Contractor; provided, that the actual subcontract price was not itself affected by defective cost or pricing data.
- (d) (1) If the Contracting Officer determines under paragraph (b) of this clause that a price or cost reduction should be made, the Contractor agrees not to raise the following matters as a defense:
 - (i) The Contractor or subcontractor was a sole source supplier or otherwise was in a superior bargaining position and thus the price of the contract would not have been modified even if accurate, complete, and current cost or pricing data had been submitted.
 - (ii) The Contracting Officer should have known that the cost or pricing data in issue were defective even though the Contractor or subcontractor took no affirmative action to bring the character of the data to the attention of the Contracting Officer.
 - (iii) The contract was based on an agreement about the total cost of the contract and there was no agreement about the cost of each item procured under the contract.
 - (iv) The Contractor or subcontractor did not submit a Certificate of Current Cost or Pricing Data.
- (2) (i) Except as prohibited by subdivision (d)(2)(ii) of this clause, an offset in an amount determined appropriate by the Contracting Officer based upon the facts shall be allowed against the amount of a contract price reduction if—
 - (A) The Contractor certifies to the Contracting Officer that, to the best of the Contractor's knowledge and belief, the Contractor is entitled to the offset in the amount requested; and

- (B) The Contractor proves that the cost or pricing data were available before the "as of" date specified on its Certificate of Current Cost or Pricing Data, and that the data were not submitted before such date.
- (ii) An offset shall not be allowed if—
 - (A) The understated data were known by the Contractor to be understated before the "as of" date specified on its Certificate of Current Cost or Pricing Data; or
 - (B) The Government proves that the facts demonstrate that the contract price would not have increased in the amount to be offset even if the available data had been submitted before the "as of" date specified on its Certificate of Current Cost or Pricing Data.
- (e) If any reduction in the contract price under this clause reduces the price of items for which payment was made prior to the date of the modification reflecting the price reduction, the Contractor shall be liable to and shall pay the United States at the time such overpayment is repaid—
 - (1) Simple interest on the amount of such overpayment to be computed from the date(s) of overpayment to the Contractor to the date the Government is repaid by the Contractor at the applicable underpayment rate effective for each quarter prescribed by the Secretary of the Treasury under 26 U.S.C. 6621(a)(2); and
 - (2) A penalty equal to the amount of the overpayment, if the Contractor or subcontractor knowingly submitted cost or pricing data that were incomplete, inaccurate, or noncurrent.

I.16 52.215-13 Subcontractor Cost or Pricing Data – Modifications (OCT 1997)

- (a) The requirements of paragraphs (b) and (c) of this clause shall—
 - (1) Become operative only for any modification to this contract involving a pricing adjustment expected to exceed the threshold for submission of cost or pricing data at FAR 15.403-4; and
 - (2) Be limited to such modifications.
- (b) Before awarding any subcontract expected to exceed the threshold for submission of cost or pricing data at FAR 15.403-4, on the date of agreement on price or the date of award, whichever is later; or before pricing any subcontract modification involving a pricing adjustment expected to exceed the threshold for submission of cost or pricing data at FAR 15.403-4, the Contractor shall require the subcontractor to submit cost or pricing data (actually or by specific identification in writing), unless an exception under FAR 15.403-1 applies.
- (c) The Contractor shall require the subcontractor to certify in substantially the form prescribed in FAR 15.406-2 that, to the best of its knowledge and belief, the data submitted under paragraph (b) of this clause were accurate, complete, and current as of the date of agreement on the negotiated price of the subcontract or subcontract modification.
- (d) The Contractor shall insert the substance of this clause, including this paragraph (d), in each subcontract that exceeds the threshold for submission of cost or pricing data at FAR 15.403-4 on the date of agreement on price or the date of award, whichever is later.

I.17 52.215-15 Pension Adjustments and Asset Reversions (OCT 2004)

- (a) The Contractor shall promptly notify the Contracting Officer in writing when it determines that it will terminate a defined-benefit pension plan or otherwise recapture such pension fund assets.
- (b) For segment closings, pension plan terminations, or curtailment of benefits, the amount of the adjustment shall be—
 - (1) For contracts and subcontracts that are subject to full coverage under the Cost Accounting Standards (CAS) Board rules and regulations (48 CFR Chapter 99), the amount measured, assigned, and allocated in accordance with 48 CFR 9904.413-50(c)(12); and
 - (2) For contracts and subcontracts that are not subject to full coverage under the CAS, the amount measured, assigned, and allocated in accordance with 48 CFR 9904.413-50(c)(12), except the numerator of the fraction at 48 CFR 9904.413-50(c)(12)(vi) shall be the sum of the pension plan costs allocated to all non-CAS covered contracts and subcontracts that are subject to Federal Acquisition Regulation (FAR) Subpart 31.2 or for which cost or pricing data were submitted.
- (c) For all other situations where assets revert to the Contractor, or such assets are constructively received by it for any reason, the Contractor shall, at the Government's option, make a refund or give a credit to the Government for its equitable share of the gross amount withdrawn. The Government's equitable share shall reflect the Government's participation in pension costs through those contracts for which cost or pricing data were submitted or that are subject to FAR Subpart 31.2.
- (d) The Contractor shall include the substance of this clause in all subcontracts under this contract that meet the applicability requirement of FAR 15.408(g).

I.18 52.215-18 Reversion or Adjustment of Plans for Postretirement Benefits (PRB) Other Than Pensions (JUL 2005)

- (a) The Contractor shall promptly notify the Contracting Officer in writing when the Contractor determines that it will terminate or reduce the benefits of a PRB plan.
- (b) If PRB fund assets revert or inure to the Contractor, or are constructively received by it under a plan termination or otherwise, the Contractor shall make a refund or give a credit to the Government for its equitable share as required by 31.205-6(o)(5) of the Federal Acquisition Regulation (FAR). When determining or agreeing on the method for recovery of the Government's equitable share, the contracting parties should consider the following methods: cost reduction, amortizing the credit over a number of years (with appropriate interest), cash refund, or some other agreed upon method. Should the parties be unable to agree on the method for recovery of the Government's equitable share, through good faith negotiations, the Contracting Officer shall designate the method of recovery.
- (c) The Contractor shall insert the substance of this clause in all subcontracts that meet the applicability requirements of FAR 15.408(j).

I.19 52.215-19 Notification of Ownership Changes (OCT 1997)

- (a) The Contractor shall make the following notifications in writing:
- (1) When the Contractor becomes aware that a change in its ownership has occurred, or is certain to occur, that could result in changes in the valuation of its capitalized assets in the accounting records, the Contractor shall notify the Administrative Contracting Officer (ACO) within 30 days.
 - (2) The Contractor shall also notify the ACO within 30 days whenever changes to asset valuations or any other cost changes have occurred or are certain to occur as a result of a change in ownership.
- (b) The Contractor shall –
- (1) Maintain current, accurate, and complete inventory records of assets and their costs;
 - (2) Provide the ACO or designated representative ready access to the records upon request;
 - (3) Ensure that all individual and grouped assets, their capitalized values, accumulated depreciation or amortization, and remaining useful lives are identified accurately before and after each of the Contractor's ownership changes; and
 - (4) Retain and continue to maintain depreciation and amortization schedules based on the asset records maintained before each Contractor ownership change.
- (c) The Contractor shall include the substance of this clause in all subcontracts under this contract that meet the applicability requirement of FAR 15.408(k).

I.20 52.215-21 Requirements for Cost or Pricing Data or Information Other than Cost or Pricing Data – Modifications (OCT 1997)

- (a) Exceptions from cost or pricing data.
- (1) In lieu of submitting cost or pricing data for modifications under this contract, for price adjustments expected to exceed the threshold set forth at FAR 15.403-4 on the date of the agreement on price or the date of the award, whichever is later, the Contractor may submit a written request for exception by submitting the information described in the following subparagraphs. The Contracting Officer may require additional supporting information, but only to the extent necessary to determine whether an exception should be granted, and whether the price is fair and reasonable—
 - (i) Identification of the law or regulation establishing the price offered. If the price is controlled under law by periodic rulings, reviews, or similar actions of a governmental body, attach a copy of the controlling document, unless it was previously submitted to the contracting office.
 - (ii) Information on modifications of contracts or subcontracts for commercial items.
 - (A) If—
 - (1) The original contract or subcontract was granted an exception from cost or pricing data requirements because the price agreed upon was

- based on adequate price competition or prices set by law or regulation, or was a contract or subcontract for the acquisition of a commercial item; and
- (2) The modification (to the contract or subcontract) is not exempted based on one of these exceptions, then the Contractor may provide information to establish that the modification would not change the contract or subcontract from a contract or subcontract for the acquisition of a commercial item to a contract or subcontract for the acquisition of an item other than a commercial item.
- (B) For a commercial item exception, the Contractor shall provide, at a minimum, information on prices at which the same item or similar items have previously been sold that is adequate for evaluating the reasonableness of the price of the modification. Such information may include—
- (1) For catalog items, a copy of or identification of the catalog and its date, or the appropriate pages for the offered items, or a statement that the catalog is on file in the buying office to which the proposal is being submitted. Provide a copy or describe current discount policies and price lists (published or unpublished), e.g., wholesale, original equipment manufacturer, or reseller. Also explain the basis of each offered price and its relationship to the established catalog price, including how the proposed price relates to the price of recent sales in quantities similar to the proposed quantities.
 - (2) For market-priced items, the source and date or period of the market quotation or other basis for market price, the base amount, and applicable discounts. In addition, describe the nature of the market.
 - (3) For items included on an active Federal Supply Service Multiple Award Schedule contract, proof that an exception has been granted for the schedule item.
- (2) The Contractor grants the Contracting Officer or an authorized representative the right to examine, at any time before award, books, records, documents, or other directly pertinent records to verify any request for an exception under this clause, and the reasonableness of price. For items priced using catalog or market prices, or law or regulation, access does not extend to cost or profit information or other data relevant solely to the Contractor's determination of the prices to be offered in the catalog or marketplace.
- (b) Requirements for cost or pricing data. If the Contractor is not granted an exception from the requirement to submit cost or pricing data, the following applies:
- (1) The Contractor shall submit cost or pricing data and supporting attachments in accordance with Table 15-2 of FAR 15.408.
 - (2) As soon as practicable after agreement on price, but before award (except for unpriced actions), the Contractor shall submit a Certificate of Current Cost or Pricing Data, as prescribed by FAR 15.406-2.

**I.21 52.216-7 Allowable Cost and Payment (DEC 2002) (as modified by DEAR 952.216-7)
Alternate II**

(a) Invoicing.

- (1) The Government will make payments to the Contractor when requested as work progresses, but (except for small business concerns) not more often than once every 2 weeks, in amounts determined to be allowable by the Contracting Officer in accordance with Federal Acquisition Regulation (FAR) as supplemented by Subpart 931.2 of the Department of Energy Acquisition Regulation (DEAR), subpart 31.2 in effect on the date of this contract and the terms of this contract. The Contractor may submit to an authorized representative of the Contracting Officer, in such form and reasonable detail as the representative may require, an invoice or voucher supported by a statement of the claimed allowable cost for performing this contract.
- (2) Contract financing payments are not subject to the interest penalty provisions of the Prompt Payment Act. Interim payments made prior to the final payment under the contract are contract financing payments, except interim payments if this contract contains Alternate I to the clause at 52.232-25.
- (3) The designated payment office will make interim payments for contract financing on the 14th day for 6 months thereafter 30 days after the designated billing office receives a proper payment request.

In the event that the Government requires an audit or other review of a specific payment request to ensure compliance with the terms and conditions of the contract, the designated payment office is not compelled to make payment by the specified due date.

(b) Reimbursing costs.

- (1) For the purpose of reimbursing allowable costs (except as provided in subparagraph (b)(2) of this clause, with respect to pension, deferred profit sharing, and employee stock ownership plan contributions), the term "costs" includes only
 - (i) Those recorded costs that, at the time of the request for reimbursement, the Contractor has paid by cash, check, or other form of actual payment for items or services purchased directly for the contract;
 - (ii) When the Contractor is not delinquent in paying costs of contract performance in the ordinary course of business, costs incurred, but not necessarily paid, for -
 - (A) Supplies and services purchased directly for the contract and associated financing payments to subcontractors, provided payments determined due will be made -
 - (1) In accordance with the terms and conditions of a subcontract or invoice; and
 - (2) Ordinarily within 30 days of the submission of the Contractor's payment request to the Government;
 - (B) Materials issued from the Contractor's inventory and placed in the production process for use on the contract;
 - (C) Direct labor;
 - (D) Direct travel;
 - (E) Other direct in-house costs; and

- (F) Properly allocable and allowable indirect costs, as shown in the records maintained by the Contractor for purposes of obtaining reimbursement under Government contracts; and
 - (iii) The amount of financing payments that have been paid by cash, check, or other forms of payment to subcontractors.
- (2) Accrued costs of Contractor contributions under employee pension plans shall be excluded until actually paid unless -
 - (i) The Contractor's practice is to make contributions to the retirement fund quarterly or more frequently; and
 - (ii) The contribution does not remain unpaid 30 days after the end of the applicable quarter or shorter payment period (any contribution remaining unpaid shall be excluded from the Contractor's indirect costs for payment purposes).
 - (3) Notwithstanding the audit and adjustment of invoices or vouchers under paragraph (g) of this clause, allowable indirect costs under this contract shall be obtained by applying indirect cost rates established in accordance with paragraph (d) of this clause.
 - (4) Any statements in specifications or other documents incorporated in this contract by reference designating performance of services or furnishing of materials at the Contractor's expense or at no cost to the Government shall be disregarded for purposes of cost-reimbursement under this clause.

(c) Small business concerns.

A small business concern may receive more frequent payments than every 2 weeks.

(d) Final indirect cost rates.

- (1) Final annual indirect cost rates and the appropriate bases shall be established in accordance with Subpart 42.7 of the Federal Acquisition Regulation (FAR) in effect for the period covered by the indirect cost rate proposal.
- (2)
 - (i) The Contractor shall submit an adequate final indirect cost rate proposal to the Contracting Officer (or cognizant Federal agency official) and auditor within the 6-month period following the expiration of each of its fiscal years. Reasonable extensions, for exceptional circumstances only, may be requested in writing by the Contractor and granted in writing by the Contracting Officer. The Contractor shall support its proposal with adequate supporting data.
 - (ii) The proposed rates shall be based on the Contractor's actual cost experience for that period. The appropriate Government representative and the Contractor shall establish the final indirect cost rates as promptly as practical after receipt of the Contractor's proposal.
- (3) The Contractor and the appropriate Government representative shall execute a written understanding setting forth the final indirect cost rates. The understanding shall specify
 - (i) the agreed-upon final annual indirect cost rates,
 - (ii) the bases to which the rates apply,
 - (iii) the periods for which the rates apply,
 - (iv) any specific indirect cost items treated as direct costs in the settlement, and
 - (v) the affected contract and/or subcontract, identifying any with advance agreements or special terms and the applicable rates. The understanding shall

not change any monetary ceiling, contract obligation, or specific cost allowance or disallowance provided for in this contract. The understanding is incorporated into this contract upon execution.

- (4) Failure by the parties to agree on a final annual indirect cost rate shall be a dispute within the meaning of the Disputes clause.
- (5) Within 120 days (or longer period if approved in writing by the Contracting Officer) after settlement of the final annual indirect cost rates for all years of a physically complete contract, the Contractor shall submit a completion invoice or voucher to reflect the settled amounts and rates.
- (6)
 - (i) If the Contractor fails to submit a completion invoice or voucher within the time specified in paragraph (d)(5) of this clause, the Contracting Officer may—
 - (A) Determine the amounts due to the Contractor under the contract; and
 - (B) Record this determination in a unilateral modification to the contract.
 - (ii) This determination constitutes the final decision of the Contracting Officer in accordance with the Disputes clause.

(e) Billing rates.

Until final annual indirect cost rates are established for any period, the Government shall reimburse the Contractor at billing rates established by the Contracting Officer or by an authorized representative (the cognizant auditor), subject to adjustment when the final rates are established. These billing rates -

- (1) Shall be the anticipated final rates; and
- (2) May be prospectively or retroactively revised by mutual agreement, at either party's request, to prevent substantial overpayment or underpayment.

(f) Quick-closeout procedures.

Quick-closeout procedures are applicable when the conditions in FAR 42.708(a) are satisfied.

(g) Audit.

At any time or times before final payment, the Contracting Officer may have the Contractor's invoices or vouchers and statements of cost audited. Any payment may be -

- (1) Reduced by amounts found by the Contracting Officer not to constitute allowable costs; or
- (2) Adjusted for prior overpayments or underpayments.

(h) Final payment.

- (1) Upon approval of a completion invoice or voucher submitted by the Contractor in accordance with paragraph (d)(5) of this clause, and upon the Contractor's compliance with all terms of this contract, the Government shall promptly pay any balance of allowable costs and that part of the fee (if any) not previously paid.

- (2) The Contractor shall pay to the Government any refunds, rebates, credits, or other amounts (including interest, if any) accruing to or received by the Contractor or any assignee under this contract, to the extent that those amounts are properly allocable to costs for which the Contractor has been reimbursed by the Government. Reasonable expenses incurred by the Contractor for securing refunds, rebates, credits, or other amounts shall be allowable costs if approved by the Contracting Officer. Before final payment under this contract, the Contractor and each assignee whose assignment is in effect at the time of final payment shall execute and deliver -
- (i) An assignment to the Government, in form and substance satisfactory to the Contracting Officer, of refunds, rebates, credits, or other amounts (including interest, if any) properly allocable to costs for which the Contractor has been reimbursed by the Government under this contract; and
 - (ii) A release discharging the Government, its officers, agents, and employees from all liabilities, obligations, and claims arising out of or under this contract, except -
 - (A) Specified claims stated in exact amounts, or in estimated amounts when the exact amounts are not known;
 - (B) Claims (including reasonable incidental expenses) based upon liabilities of the Contractor to third parties arising out of the performance of this contract; provided, that the claims are not known to the Contractor on the date of the execution of the release, and that the Contractor gives notice of the claims in writing to the Contracting Officer within 6 years following the release date or notice of final payment date, whichever is earlier; and
 - (C) Claims for reimbursement of costs, including reasonable incidental expenses, incurred by the Contractor under the patent clauses of this contract, excluding, however, any expenses arising from the Contractor's indemnification of the Government against patent liability.

I.22 52.217-8 Option to Extend Services (NOV 1999)

The Government may require continued performance of any services within the limits and at the rates specified in the contract. These rates may be adjusted only as a result of revisions to prevailing labor rates provided by the Secretary of Labor. The option provision may be exercised more than once, but the total extension of performance hereunder shall not exceed 6 months. The Contracting Officer may exercise the option by written notice to the Contractor at least 15 days prior to expiration of the contract.

I.23 52.217-9 Option to Extend the Term of the Contract (MAR 2000)

- (a) The Government may extend the term of this contract by written notice to the Contractor at least 30 days prior to expiration of the contract; provided that the Government gives the Contractor a preliminary written notice of its intent to extend at least 60 days before the contract expires. The preliminary notice does not commit the Government to an extension.
- (b) If the Government exercises this option, the extended contract shall be considered to include this option clause.
- (c) The total duration of this contract, including the exercise of any options under this clause, shall not exceed 5 years and the transition period.

I.24 52.219-6 Notice of Total Small Business Set-Aside (JUN 2003)

- (a) Definition. "Small business concern," as used in this clause, means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the size standards in this solicitation.
- (b) General.
 - (1) Offers are solicited only from small business concerns. Offers received from concerns that are not small business concerns shall be considered nonresponsive and will be rejected.
 - (2) Any award resulting from this solicitation will be made to a small business concern.
- (c) Agreement. A small business concern submitting an offer in its own name shall furnish, in performing the contract, only end items manufactured or produced by small business concerns in the United States or its outlying areas. If this procurement is processed under simplified acquisition procedures and the total amount of this contract does not exceed \$25,000, a small business concern may furnish the product of any domestic firm. This paragraph does not apply to construction or service contracts.

I.25 52.219-8 Utilization of Small Business Concerns (MAY 2004)

- (a) It is the policy of the United States that small business concerns, veteran-owned small business concerns, service-disabled veteran-owned small business concerns, HUBZone small business concerns, small disadvantaged business concerns, and women-owned small business concerns shall have the maximum practicable opportunity to participate in performing contracts let by any Federal agency, including contracts and subcontracts for subsystems, assemblies, components, and related services for major systems. It is further the policy of the United States that its prime contractors establish procedures to ensure the timely payment of amounts due pursuant to the terms of their subcontracts with small business concerns, veteran-owned small business concerns, service-disabled veteran-owned small business concerns, HUBZone small business concerns, small disadvantaged business concerns, and women-owned small business concerns.
- (b) The Contractor hereby agrees to carry out this policy in the awarding of subcontracts to the fullest extent consistent with efficient contract performance. The Contractor further agrees to cooperate in any studies or surveys as may be conducted by the United States Small Business Administration or the awarding agency of the United States as may be necessary to determine the extent of the Contractor's compliance with this clause.
- (c) Definitions. As used in this contract—
 - "HUBZone small business concern" means a small business concern that appears on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration.
 - "Service-disabled veteran-owned small business concern"—
 - (1) Means a small business concern—
 - (i) Not less than 51 percent of which is owned by one or more service-disabled

- veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more service-disabled veterans; and
- (ii) The management and daily business operations of which are controlled by one or more service-disabled veterans or, in the case of a service-disabled veteran with permanent and severe disability, the spouse or permanent caregiver of such veteran.

- (2) Service-disabled veteran means a veteran, as defined in 38 U.S.C. 101(2), with a disability that is service-connected, as defined in 38 U.S.C. 101(16).

"Small business concern" means a small business as defined pursuant to Section 3 of the Small Business Act and relevant regulations promulgated pursuant thereto.

"Small disadvantaged business concern" means a small business concern that represents, as part of its offer that—

- (1) It has received certification as a small disadvantaged business concern consistent with 13 CFR part 124, Subpart B;
- (2) No material change in disadvantaged ownership and control has occurred since its certification;
- (3) Where the concern is owned by one or more individuals, the net worth of each individual upon whom the certification is based does not exceed \$750,000 after taking into account the applicable exclusions set forth at 13 CFR 124.104(c)(2); and
- (4) It is identified, on the date of its representation, as a certified small disadvantaged business in the database maintained by the Small Business Administration (PRO-Net).

"Veteran-owned small business concern" means a small business concern—

- (1) Not less than 51 percent of which is owned by one or more veterans (as defined at 38 U.S.C. 101(2)) or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more veterans; and
- (2) The management and daily business operations of which are controlled by one or more veterans.

"Women-owned small business concern" means a small business concern—

- (1) That is at least 51 percent owned by one or more women, or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and
 - (2) Whose management and daily business operations are controlled by one or more women.
- (d) Contractors acting in good faith may rely on written representations by their subcontractors regarding their status as a small business concern, a veteran-owned small business concern, a service-disabled veteran-owned small business concern, a HUBZone small business concern, a small disadvantaged business concern, or a women-owned small business concern.

I.26 52.219-14 Limitations on Subcontracting (DEC 1996)

- (a) This clause does not apply to the unrestricted portion of a partial set-aside.
- (b) By submission of an offer and execution of a contract, the Offeror/Contractor agrees that in performance of the contract in the case of a contract for—
 - (1) Services (except construction). At least 50 percent of the cost of contract performance incurred for personnel shall be expended for employees of the concern.
 - (2) Supplies (other than procurement from a nonmanufacturer of such supplies). The concern shall perform work for at least 50 percent of the cost of manufacturing the supplies, not including the cost of materials.
 - (3) General construction. The concern will perform at least 15 percent of the cost of the contract, not including the cost of materials, with its own employees.
 - (4) Construction by special trade contractors. The concern will perform at least 25 percent of the cost of the contract, not including the cost of materials, with its own employees.

I.27 52.222-2 Payment for Overtime Premiums (JUL 1990)

- (a) The use of overtime is authorized under this contract if the overtime premium does not exceed \$11,500,000 or the overtime premium is paid for work—
 - (1) Necessary to cope with emergencies such as those resulting from accidents, natural disasters, breakdowns of production equipment, or occasional production bottlenecks of a sporadic nature;
 - (2) By indirect-labor employees such as those performing duties in connection with administration, protection, transportation, maintenance, standby plant protection, operation of utilities, or accounting;
 - (3) To perform tests, industrial processes, laboratory procedures, loading or unloading of transportation conveyances, and operations in flight or afloat that are continuous in nature and cannot reasonably be interrupted or completed otherwise; or
 - (4) That will result in lower overall costs to the Government.
- (b) Any request for estimated overtime premiums that exceeds the amount specified above shall include all estimated overtime for contract completion and shall —
 - (1) Identify the work unit; e.g., department or section in which the requested overtime will be used, together with present workload, staffing, and other data of the affected unit sufficient to permit the Contracting Officer to evaluate the necessity for the overtime;
 - (2) Demonstrate the effect that denial of the request will have on the contract delivery or performance schedule;

- (3) Identify the extent to which approval of overtime would affect the performance or payments in connection with other Government contracts, together with identification of each affected contract; and
- (4) Provide reasons why the required work cannot be performed by using multishift operations or by employing additional personnel.

I.28 52.222-3 Convict Labor (JUN 2003)

- (a) Except as provided in paragraph (b) of this clause, the Contractor shall not employ in the performance of this contract any person undergoing a sentence of imprisonment imposed by any court of a State, the District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, or the U.S. Virgin Islands.
- (b) The Contractor is not prohibited from employing persons—
 - (1) On parole or probation to work at paid employment during the term of their sentence;
 - (2) Who have been pardoned or who have served their terms; or
 - (3) Confined for violation of the laws of any of the States, the District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, or the U.S. Virgin Islands who are authorized to work at paid employment in the community under the laws of such jurisdiction, if—
 - (i) The worker is paid or is in an approved work training program on a voluntary basis;
 - (ii) Representatives of local union central bodies or similar labor union organizations have been consulted;
 - (iii) Such paid employment will not result in the displacement of employed workers, or be applied in skills, crafts, or trades in which there is a surplus of available gainful labor in the locality, or impair existing contracts for services;
 - (iv) The rates of pay and other conditions of employment will not be less than those paid or provided for work of a similar nature in the locality in which the work is being performed; and
 - (v) The Attorney General of the United States has certified that the work-release laws or regulations of the jurisdiction involved are in conformity with the requirements of Executive Order 11755, as amended by Executive Orders 12608 and 12943.

I.29 52.222-4 Contract Work Hours and Safety Standards Act – Overtime Compensation (JUL 2005)

- (a) Overtime requirements. No Contractor or subcontractor employing laborers or mechanics (see Federal Acquisition Regulation 22.300) shall require or permit them to work over 40 hours in any workweek unless they are paid at least 1 and 1/2 times the basic rate of pay for each hour worked over 40 hours.
- (b) Violation; liability for unpaid wages; liquidated damages. The responsible Contractor and subcontractor are liable for unpaid wages if they violate the terms in paragraph (a) of this clause. In addition, the Contractor and subcontractor are liable for liquidated damages payable to the Government. The Contracting Officer will assess liquidated damages at the rate of \$10 per affected employee for each calendar day on which the employer required or

- permitted the employee to work in excess of the standard workweek of 40 hours without paying overtime wages required by the Contract Work Hours and Safety Standards Act.
- (c) Withholding for unpaid wages and liquidated damages. The Contracting Officer will withhold from payments due under the contract sufficient funds required to satisfy any Contractor or subcontractor liabilities for unpaid wages and liquidated damages. If amounts withheld under the contract are insufficient to satisfy Contractor or subcontractor liabilities, the Contracting Officer will withhold payments from other Federal or federally assisted contracts held by the same Contractor that are subject to the Contract Work Hours and Safety Standards Act.
- (d) Payrolls and basic records.
- (1) The Contractor and its subcontractors shall maintain payrolls and basic payroll records for all laborers and mechanics working on the contract during the contract and shall make them available to the Government until 3 years after contract completion. The records shall contain the name and address of each employee, social security number, labor classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. The records need not duplicate those required for construction work by Department of Labor regulations at 29 CFR 5.5(a)(3) implementing the Davis-Bacon Act.
- (2) The Contractor and its subcontractors shall allow authorized representatives of the Contracting Officer or the Department of Labor to inspect, copy, or transcribe records maintained under paragraph (d)(1) of this clause. The Contractor or subcontractor also shall allow authorized representatives of the Contracting Officer or Department of Labor to interview employees in the workplace during working hours.
- (e) Subcontracts.

The Contractor shall insert the provisions set forth in paragraphs (a) through (d) of this clause in subcontracts that may require or involve the employment of laborers and mechanics and require subcontractors to include these provisions in any such lower tier subcontracts. The Contractor shall be responsible for compliance by any subcontractor or lower-tier subcontractor with the provisions set forth in paragraphs (a) through (d) of this clause.

I.30 52.222-6 Davis-Bacon Act (JUL 2005)

- (a) Definition.—“Site of the work”—
- (1) Means—
- (i) The primary site of the work. The physical place or places where the construction called for in the contract will remain when work on it is completed; and
- (ii) The secondary site of the work, if any. Any other site where a significant portion of the building or work is constructed, provided that such site is—
- (A) Located in the United States; and
- (B) Established specifically for the performance of the contract or project;
- (2) Except as provided in paragraph (3) of this definition, includes any fabrication plants, mobile factories, batch plants, borrow pits, job headquarters, tool yards, etc., provided—

- (i) They are dedicated exclusively, or nearly so, to performance of the contract or project; and
 - (ii) They are adjacent or virtually adjacent to the “primary site of the work” as defined in paragraph (a)(1)(i), or the “secondary site of the work” as defined in paragraph (a)(1)(ii) of this definition;
- (3) Does not include permanent home offices, branch plant establishments, fabrication plants, or tool yards of a Contractor or subcontractor whose locations and continuance in operation are determined wholly without regard to a particular Federal contract or project. In addition, fabrication plants, batch plants, borrow pits, job headquarters, yards, etc., of a commercial or material supplier which are established by a supplier of materials for the project before opening of bids and not on the Project site, are not included in the “site of the work.” Such permanent, previously established facilities are not a part of the “site of the work” even if the operations for a period of time may be dedicated exclusively or nearly so, to the performance of a contract.
- (b) (1) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, or as may be incorporated for a secondary site of the work, regardless of any contractual relationship which may be alleged to exist between the Contractor and such laborers and mechanics. Any wage determination incorporated for a secondary site of the work shall be effective from the first day on which work under the contract was performed at that site and shall be incorporated without any adjustment in contract price or estimated cost. Laborers employed by the construction Contractor or construction subcontractor that are transporting portions of the building or work between the secondary site of the work and the primary site of the work shall be paid in accordance with the wage determination applicable to the primary site of the work.
- (2) Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (e) of this clause; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such period.
- (3) Such laborers and mechanics shall be paid not less than the appropriate wage rate and fringe benefits in the wage determination for the classification of work actually performed, without regard to skill, except as provided in the clause entitled Apprentices and Trainees. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein; provided, that the employer’s payroll records accurately set forth the time spent in each classification in which work is performed.
- (4) The wage determination (including any additional classifications and wage rates conformed under paragraph (c) of this clause) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the Contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

- (c) (1) The Contracting Officer shall require that any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The Contracting Officer shall approve an additional classification and wage rate and fringe benefits therefore only when all the following criteria have been met:
- (i) The work to be performed by the classification requested is not performed by a classification in the wage determination.
 - (ii) The classification is utilized in the area by the construction industry.
 - (iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.
- (2) If the Contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the Contracting Officer agree on the classification and wage rate (including the amount designated for fringe benefits, where appropriate), a report of the action taken shall be sent by the Contracting Officer to the Administrator of the:
- Wage and Hour Division
Employment Standards Administration
U.S. Department of Labor
Washington, DC 20210
- The Administrator or an authorized representative will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the Contracting Officer or will notify the Contracting Officer within the 30-day period that additional time is necessary.
- (3) In the event the Contractor, the laborers or mechanics to be employed in the classification, or their representatives, and the Contracting Officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the Contracting Officer shall refer the questions, including the views of all interested parties and the recommendation of the Contracting Officer, to the Administrator of the Wage and Hour Division for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the Contracting Officer or will notify the Contracting Officer within the 30-day period that additional time is necessary.
- (4) The wage rate (including fringe benefits, where appropriate) determined pursuant to subparagraphs (c)(2) and (c)(3) of this clause shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.
- (d) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the Contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.
- (e) If the Contractor does not make payments to a trustee or other third person, the Contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program; provided, That the Secretary of Labor has found, upon the written request of the Contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor

may require the Contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

I.31 52.222-7 Withholding of Funds (FEB 1988)

The Contracting Officer shall, upon his or her own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the Contractor under this contract or any other Federal contract with the same Prime Contractor, or any other federally assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same Prime Contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the Contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the Contracting Officer may, after written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

I.32 52.222-8 Payrolls and Basic Records (FEB 1988)

(a) Payrolls and basic records relating thereto shall be maintained by the Contractor during the course of the work and preserved for a period of 3 years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made, and actual wages paid. Whenever the Secretary of Labor has found, under paragraph (d) of the clause entitled Davis-Bacon Act, that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the Contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(b) (1) The Contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the Contracting Officer. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under paragraph (a) of this clause. This information may be submitted in any form desired. Optional Form WH-347 (Federal Stock Number 029-005-00014-1) is available for this purpose and may be purchased from the—

Superintendent of Documents
U.S. Government Printing Office
Washington, DC 20402

The Prime Contractor is responsible for the submission of copies of payrolls by all subcontractors.

- (2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the Contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify —
 - (i) That the payroll for the payroll period contains the information required to be maintained under paragraph (a) of this clause and that such information is correct and complete;
 - (ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in the Regulations, 29 CFR Part 3; and
 - (iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.
 - (3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by subparagraph (b)(2) of this clause.
 - (4) The falsification of any of the certifications in this clause may subject the Contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 3729 of Title 31 of the United States Code.
- (c) The Contractor or subcontractor shall make the records required under paragraph (a) of this clause available for inspection, copying, or transcription by the Contracting Officer or authorized representatives of the Contracting Officer or the Department of Labor. The Contractor or subcontractor shall permit the Contracting Officer or representatives of the Contracting Officer or the Department of Labor to interview employees during working hours on the job. If the Contractor or subcontractor fails to submit required records or to make them available, the Contracting Officer may, after written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payment. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

I.33 52.222-9 Apprentices and Trainees (JUL 2005)

- (a) Apprentices.
 - (1) An apprentice will be permitted to work at less than the predetermined rate for the work they performed when they are employed—
 - (i) Pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship and Training, Employer, and Labor Services (OATELS) or with a State Apprenticeship Agency recognized by the OATELS; or
 - (ii) In the first 90 days of probationary employment as an apprentice in such an apprenticeship program, even though not individually registered in the program, if certified by the OATELS or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

- (2) The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the Contractor as to the entire work force under the registered program.
 - (3) Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in paragraph (a)(1) of this clause, shall be paid not less than the applicable wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.
 - (4) Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the Contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination.
 - (5) Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.
 - (6) In the event OATELS, or a State Apprenticeship Agency recognized by OATELS, withdraws approval of an apprenticeship program, the Contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.
- (b) Trainees.
- (1) Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer, and Labor Services (OATELS). The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by OATELS.
 - (2) Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed in the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate in the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the OATELS shall be paid not less than the applicable wage rate in the wage

determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate in the wage determination for the work actually performed.

- (3) In the event OATELS withdraws approval of a training program, the Contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.
- (c) Equal employment opportunity. The utilization of apprentices, trainees, and journeymen under this clause shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

I.34 52.222-10 Compliance with Copeland Act Requirements (FEB 1988)

The Contractor shall comply with the requirements of 29 CFR Part 3, which are hereby incorporated by reference in this contract.

I.35 52.222-11 Subcontracts (Labor Standards) (JUL 2005)

- (a) Definition. "Construction, alteration or repair," as used in this clause means all types of work done by laborers and mechanics employed by the construction Contractor or construction subcontractor on a particular building or work at the site thereof, including without limitation—
 - (1) Altering, remodeling, installation (if appropriate) on the site of the work of items fabricated off-site;
 - (2) Painting and decorating;
 - (3) Manufacturing or furnishing of materials, articles, supplies, or equipment on the site of the building or work;
 - (4) Transportation of materials and supplies between the site of the work within the meaning of paragraphs (a)(1)(i) and (ii) of the "site of the work" as defined in the FAR clause at 52.222-6, Davis-Bacon Act of this contract, and a facility which is dedicated to the construction of the building or work and is deemed part of the site of the work within the meaning of paragraph (2) of the "site of work" definition; and
 - (5) Transportation of portions of the building or work between a secondary site where a significant portion of the building or work is constructed, which is part of the "site of the work" definition in paragraph (a)(1)(ii) of the FAR clause at 52.222-6, Davis-Bacon Act, and the physical place or places where the building or work will remain (paragraph (a)(1)(i) of the FAR clause at 52.222-6, in the "site of the work" definition).
- (b) The Contractor or subcontractor shall insert in any subcontracts for construction, alterations and repairs within the United States the clauses entitled—
 - (1) Davis-Bacon Act;
 - (2) Contract Work Hours and Safety Standards Act — Overtime Compensation (if the clause is included in this contract);

- (3) Apprentices and Trainees;
 - (4) Payrolls and Basic Records;
 - (5) Compliance with Copeland Act Requirements;
 - (6) Withholding of Funds;
 - (7) Subcontracts (Labor Standards);
 - (8) Contract Termination – Debarment;
 - (9) Disputes Concerning Labor Standards;
 - (10) Compliance with Davis-Bacon and Related Act Regulations; and
 - (11) Certification of Eligibility.
- (c) The Prime Contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor performing construction within the United States with all the contract clauses cited in paragraph (b).
- (d) (1) Within 14 days after award of the contract, the Contractor shall deliver to the Contracting Officer a completed Standard Form (SF) 1413, Statement and Acknowledgment, for each subcontract for construction within the United States, including the subcontractor's signed and dated acknowledgment that the clauses set forth in paragraph (b) of this clause have been included in the subcontract.
- (2) Within 14 days after the award of any subsequently awarded subcontract the Contractor shall deliver to the Contracting Officer an updated completed SF 1413 for such additional subcontract.
- (e) The Contractor shall insert the substance of this clause, including this paragraph (e) in all subcontracts for construction within the United States.

I.36 52.222-12 Contract Termination – Debarment (FEB 1988)

A breach of the contract clauses entitled Davis-Bacon Act, Contract Work Hours and Safety Standards Act — Overtime Compensation, Apprentices and Trainees, Payrolls and Basic Records, Compliance with Copeland Act Requirements, Subcontracts (Labor Standards), Compliance with Davis-Bacon and Related Act Regulations, or Certification of Eligibility may be grounds for termination of the contract, and for debarment as a Contractor and subcontractor as provided in 29 CFR 5.12.

I.37 52.222-13 Compliance with Davis-Bacon and Related Act Regulations (FEB 1988)

All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are hereby incorporated by reference in this contract.

I.38 52.222-14 Disputes Concerning Labor Standards (FEB 1988)

The United States Department of Labor has set forth in 29 CFR Parts 5, 6, and 7 procedures for resolving disputes concerning labor standards requirements. Such disputes shall be resolved in

accordance with those procedures and not the Disputes clause of this contract. Disputes within the meaning of this clause include disputes between the Contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

I.39 52.222-15 Certification of Eligibility (FEB 1988)

- (a) By entering into this contract, the Contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the Contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
- (b) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
- (c) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

I.40 52.222-16 Approval of Wage Rates (FEB 1988)

All straight time wage rates, and overtime rates based thereon, for laborers and mechanics engaged in work under this contract must be submitted for approval in writing by the head of the contracting activity or a representative expressly designated for this purpose, if the straight time wages exceed the rates for corresponding classifications contained in the applicable Davis-Bacon Act minimum wage determination included in the contract. Any amount paid by the Contractor to any laborer or mechanic in excess of the agency approved wage rate shall be at the expense of the Contractor and shall not be reimbursed by the Government. If the Government refuses to authorize the use of the overtime, the Contractor is not released from the obligation to pay employees at the required overtime rates for any overtime actually worked.

I.41 52.222-21 Prohibition of Segregated Facilities (FEB 1999)

- (a) "Segregated facilities," as used in this clause, means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees, that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, sex, or national origin because of written or oral policies or employee custom. The term does not include separate or single-user rest rooms or necessary dressing or sleeping areas provided to assure privacy between the sexes.
- (b) The Contractor agrees that it does not and will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control where segregated facilities are maintained. The Contractor agrees that a breach of this clause is a violation of the Equal Opportunity clause in this contract.
- (c) The Contractor shall include this clause in every subcontract and purchase order that is subject to the Equal Opportunity clause of this contract.

I.42 52.222-26 Equal Opportunity (MAR 2007)

- (a) Definition. "United States," as used in this clause, means the 50 States, the District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, the U.S. Virgin Islands, and Wake Island.
- (b) (1) If, during any 12-month period (including the 12 months preceding the award of this contract), the Contractor has been or is awarded nonexempt Federal contracts and/or subcontracts that have an aggregate value in excess of \$10,000, the Contractor shall comply with this clause, except for work performed outside the United States by employees who were not recruited within the United States. Upon request, the Contractor shall provide information necessary to determine the applicability of this clause.
- (2) If the Contractor is a religious corporation, association, educational institution, or society, the requirements of this clause do not apply with respect to the employment of individuals of a particular religion to perform work connected with the carrying on of the Contractor's activities (41 CFR 60-1.5).
- (c) (1) The Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. However, it shall not be a violation of this clause for the Contractor to extend a publicly announced preference in employment to Indians living on or near an Indian reservation, in connection with employment opportunities on or near an Indian reservation, as permitted by 41 CFR 60-1.5.
- (2) The Contractor shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. This shall include, but not be limited to —
- (i) Employment;
 - (ii) Upgrading;
 - (iii) Demotion;
 - (iv) Transfer;
 - (v) Recruitment or recruitment advertising;
 - (vi) Layoff or termination;
 - (vii) Rates of pay or other forms of compensation; and
 - (viii) Selection for training, including apprenticeship.
- (3) The Contractor shall post in conspicuous places available to employees and applicants for employment the notices to be provided by the Contracting Officer that explain this clause.
- (4) The Contractor shall, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.
- (5) The Contractor shall send, to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, the notice to be provided by the Contracting Officer advising the labor union or workers' representative of the Contractor's commitments under this clause, and post copies of the notice in conspicuous places available to employees and applicants for employment.

- (6) The Contractor shall comply with Executive Order 11246, as amended, and the rules, regulations, and orders of the Secretary of Labor.
 - (7) The Contractor shall furnish to the contracting agency all information required by Executive Order 11246, as amended, and by the rules, regulations, and orders of the Secretary of Labor. The Contractor shall also file Standard Form 100 (EEO-1), or any successor form, as prescribed in 41 CFR part 60-1. Unless the Contractor has filed within the 12 months preceding the date of contract award, the Contractor shall, within 30 days after contract award, apply to either the regional Office of Federal Contract Compliance Programs (OFCCP) or the local office of the Equal Employment Opportunity Commission for the necessary forms.
 - (8) The Contractor shall permit access to its premises, during normal business hours, by the contracting agency or the (OFCCP) for the purpose of conducting on-site compliance evaluations and complaint investigations. The Contractor shall permit the Government to inspect and copy any books, accounts, records (including computerized records), and other material that may be relevant to the matter under investigation and pertinent to compliance with Executive Order 11246, as amended, and rules and regulations that implement the Executive Order.
 - (9) If the OFCCP determines that the Contractor is not in compliance with this clause or any rule, regulation, or order of the Secretary of Labor, this contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts, under the procedures authorized in Executive Order 11246, as amended. In addition, sanctions may be imposed and remedies invoked against the Contractor as provided in Executive Order 11246, as amended, in the rules, regulations, and orders of the Secretary of Labor, or as otherwise provided by law.
 - (10) The Contractor shall include the terms and conditions of this clause in every subcontract or purchase order that is not exempted by the rules, regulations, or orders of the Secretary of Labor issued under Executive Order 11246, as amended, so that these terms and conditions will be binding upon each subcontractor or vendor.
 - (11) The Contractor shall take such action with respect to any subcontract or purchase order as the contracting officer may direct as a means of enforcing these terms and conditions, including sanctions for noncompliance; provided, that if the Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of any direction, the Contractor may request the United States to enter into the litigation to protect the interests of the United States.
- (d) Notwithstanding any other clause in this contract, disputes relative to this clause will be governed by the procedures in 41 CFR 60-1.1.

I.43 52.222-27 Affirmative Action Compliance Requirements for Construction (FEB 1999)

- (a) Definitions. "Covered area," as used in this clause, means the geographical area described in the solicitation for this contract.

"Deputy Assistant Secretary," as used in this clause, means the Deputy Assistant Secretary for Federal Contract Compliance, U.S. Department of Labor, or a designee.

“Employer’s identification number,” as used in this clause, means the Federal Social Security number used on the employer’s quarterly federal tax return, U.S. Treasury Department Form 941.

“Minority,” as used in this clause, means—

- (1) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
 - (2) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands);
 - (3) Black (all persons having origins in any of the black African racial groups not of Hispanic origin); and
 - (4) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race).
- (b) If the Contractor, or a subcontractor at any tier, subcontracts a portion of the work involving any construction trade, each such subcontract in excess of \$10,000 shall include this clause and the Notice containing the goals for minority and female participation stated in the solicitation for this contract.
- (c) If the Contractor is participating in a Hometown Plan (41 CFR 60-4) approved by the U.S. Department of Labor in a covered area, either individually or through an association, its affirmative action obligations on all work in the plan area (including goals) shall comply with the plan for those trades that have unions participating in the plan. Contractors must be able to demonstrate participation in, and compliance with, the provisions of the plan. Each Contractor or subcontractor participating in an approved plan is also required to comply with its obligations under the Equal Opportunity clause, and to make a good faith effort to achieve each goal under the plan in each trade in which it has employees. The overall good-faith performance by other Contractors or subcontractors toward a goal in an approved plan does not excuse any Contractor’s or subcontractor’s failure to make good-faith efforts to achieve the plan’s goals.
- (d) The Contractor shall implement the affirmative action procedures in subparagraphs (g)(1) through (16) of this clause. The goals stated in the solicitation for this contract are expressed as percentages of the total hours of employment and training of minority and female utilization that the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for the geographical area where that work is actually performed. The Contractor is expected to make substantially uniform progress toward its goals in each craft.
- (e) Neither the terms and conditions of any collective bargaining agreement, nor the failure by a union with which the Contractor has a collective bargaining agreement, to refer minorities or women shall excuse the Contractor’s obligations under this clause, Executive Order 11246, as amended, or the regulations thereunder.

- (f) In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.
- (g) The Contractor shall take affirmative action to ensure equal employment opportunity. The evaluation of the Contractor's compliance with this clause shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully and implement affirmative action steps at least as extensive as the following:
- (1) Ensure a working environment free of harassment, intimidation, and coercion at all sites and in all facilities where the Contractor's employees are assigned to work. The Contractor, if possible, will assign two or more women to each construction project. The Contractor shall ensure that foremen, superintendents, and other onsite supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at these sites or facilities.
 - (2) Establish and maintain a current list of sources for minority and female recruitment. Provide written notification to minority and female recruitment sources and community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
 - (3) Establish and maintain a current file of the names, addresses, and telephone numbers of each minority and female off-the-street applicant, referrals of minorities or females from unions, recruitment sources, or community organizations, and the action taken with respect to each individual. If an individual was sent to the union hiring hall for referral and not referred back to the Contractor by the union or, if referred back, not employed by the Contractor, this shall be documented in the file, along with whatever additional actions the Contractor may have taken.
 - (4) Immediately notify the Deputy Assistant Secretary when the union or unions with which the Contractor has a collective bargaining agreement has not referred back to the Contractor a minority or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
 - (5) Develop on-the-job training opportunities and/or participate in training programs for the area that expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under subparagraph (g)(2) of this clause.
 - (6) Disseminate the Contractor's equal employment policy by—
 - (i) Providing notice of the policy to unions and to training, recruitment, and outreach programs, and requesting their cooperation in assisting the Contractor in meeting its contract obligations;
 - (ii) Including the policy in any policy manual and in collective bargaining agreements;

- (iii) Publicizing the policy in the company newspaper, annual report, etc.;
 - (iv) Reviewing the policy with all management personnel and with all minority and female employees at least once a year; and
 - (v) Posting the policy on bulletin boards accessible to employees at each location where construction work is performed.
- (7) Review, at least annually, the Contractor's equal employment policy and affirmative action obligations with all employees having responsibility for hiring, assignment, layoff, termination, or other employment decisions. Conduct review of this policy with all on-site supervisory personnel before initiating construction work at a job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
 - (8) Disseminate the Contractor's equal employment policy externally by including it in any advertising in the news media, specifically including minority and female news media. Provide written notification to, and discuss this policy with, other Contractors and subcontractors with which the Contractor does or anticipates doing business.
 - (9) Direct recruitment efforts, both oral and written, to minority, female, and community organizations, to schools with minority and female students, and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than 1 month before the date for acceptance of applications for apprenticeship or training by any recruitment source, send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
 - (10) Encourage present minority and female employees to recruit minority persons and women. Where reasonable, provide after-school, summer, and vacation employment to minority and female youth both on the site and in other areas of the Contractor's workforce.
 - (11) Validate all tests and other selection requirements where required under 41 CFR 60-3.
 - (12) Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities. Encourage these employees to seek or to prepare for, through appropriate training, etc., opportunities for promotion.
 - (13) Ensure that seniority practices, job classifications, work assignments, and other personnel practices do not have a discriminatory effect by continually monitoring all personnel and employment-related activities to ensure that the Contractor's obligations under this contract are being carried out.
 - (14) Ensure that all facilities and company activities are nonsegregated except that separate or single-user rest rooms and necessary changing or sleeping areas shall be provided to assure privacy between the sexes.
 - (15) Maintain a record of solicitations for subcontracts for minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
 - (16) Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's equal employment policy and affirmative action obligations.

- (h) The Contractor is encouraged to participate in voluntary associations that may assist in fulfilling one or more of the affirmative action obligations contained in subparagraphs (g)(1) through (16) of this clause. The efforts of a contractor association, joint contractor-union, contractor-community, or similar group of which the contractor is a member and participant may be asserted as fulfilling one or more of its obligations under subparagraphs (g)(1) through (16) of this clause, provided the Contractor –
- (1) Actively participates in the group;
 - (2) Makes every effort to ensure that the group has a positive impact on the employment of minorities and women in the industry;
 - (3) Ensures that concrete benefits of the program are reflected in the Contractor's minority and female workforce participation;
 - (4) Makes a good-faith effort to meet its individual goals and timetables; and
 - (5) Can provide access to documentation that demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply is the Contractor's, and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.
- (i) A single goal for minorities and a separate single goal for women shall be established. The Contractor is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and nonminority. Consequently, the Contractor may be in violation of Executive Order 11246, as amended, if a particular group is employed in a substantially disparate manner.
- (j) The Contractor shall not use goals or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.
- (k) The Contractor shall not enter into any subcontract with any person or firm debarred from Government contracts under Executive Order 11246, as amended.
- (l) The Contractor shall carry out such sanctions and penalties for violation of this clause and of the Equal Opportunity clause, including suspension, termination, and cancellation of existing subcontracts, as may be imposed or ordered under Executive Order 11246, as amended, and its implementing regulations, by the OFCCP. Any failure to carry out these sanctions and penalties as ordered shall be a violation of this clause and Executive Order 11246, as amended.
- (m) The Contractor in fulfilling its obligations under this clause shall implement affirmative action procedures at least as extensive as those prescribed in paragraph (g) of this clause, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of Executive Order 11246, as amended, the implementing regulations, or this clause, the Deputy Assistant Secretary shall take action as prescribed in 41 CFR 60-4.8.

- (n) The Contractor shall designate a responsible official to—
- (1) Monitor all employment-related activity to ensure that the Contractor's equal employment policy is being carried out;
 - (2) Submit reports as may be required by the Government; and
 - (3) Keep records that shall at least include for each employee the name, address, telephone number, construction trade, union affiliation (if any), employee identification number, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, separate records are not required to be maintained.
- (o) Nothing contained herein shall be construed as a limitation upon the application of other laws that establish different standards of compliance or upon the requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

I.44 52.222-30 Davis-Bacon Act – Price Adjustment (None or Separately Specified Method) (DEC 2001)

- (a) The wage determination issued under the Davis-Bacon Act by the Administrator, Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, that is effective for an option to extend the term of the contract, will apply to that option period.
- (b) The Contracting Officer will make no adjustment in contract price, other than provided for elsewhere in this contract, to cover any increases or decreases in wages and benefits as a result of—
- (1) Incorporation of the Department of Labor's wage determination applicable at the exercise of the option to extend the term of the contract.
 - (2) Incorporation of a wage determination otherwise applied to the contract by operation of law; or
 - (3) An increase in wages and benefits resulting from any other requirement applicable to workers subject to the Davis-Bacon Act.

I.45 52.222-35 Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (SEP 2006)

- (a) Definitions. As used in this clause —

“All employment openings” means all positions except executive and top management, those positions that will be filled from within the Contractor's organization, and positions lasting 3 days or less. This term includes full-time employment, temporary employment of more than 3 days duration, and part-time employment.

“Executive and top Management” means any employee—

- (1) Whose primary duty consists of the management of the enterprise in which the individual is employed or of a customarily recognized department or subdivision thereof;
- (2) Who customarily and regularly directs the work of two or more other employees;
- (3) Who has the authority to hire or fire other employees or whose suggestions and recommendations as to the hiring or firing and as to the advancement and promotion or any other change of status of other employees will be given particular weight;
- (4) Who customarily and regularly exercises discretionary powers; and
- (5) Who does not devote more than 20 percent or, in the case of an employee of a retail or service establishment, who does not devote more than 40 percent of total hours of work in the work week to activities that are not directly and closely related to the performance of the work described in paragraphs (1) through (4) of this definition. This paragraph (5) does not apply in the case of an employee who is in sole charge of an establishment or a physically separated branch establishment, or who owns at least a 20 percent interest in the enterprise in which the individual is employed.

“Other eligible veteran” means any other veteran who served on active duty during a war or in a campaign or expedition for which a campaign badge has been authorized.

“Positions that will be filled from within the Contractor’s organization” means employment openings for which the Contractor will give no consideration to persons outside the Contractor’s organization (including any affiliates, subsidiaries, and parent companies) and includes any openings the Contractor proposes to fill from regularly established “recall” lists. The exception does not apply to a particular opening once an employer decides to consider applicants outside of its organization.

“Qualified special disabled veteran” means a special disabled veteran who satisfies the requisite skill, experience, education, and other job-related requirements of the employment position such veteran holds or desires, and who, with or without reasonable accommodation, can perform the essential functions of such position.

“Special disabled veteran” means—

- (1) A veteran who is entitled to compensation (or who but for the receipt of military retired pay would be entitled to compensation) under laws administered by the Department of Veterans Affairs for a disability—
 - (i) Rated at 30 percent or more; or
 - (ii) Rated at 10 or 20 percent in the case of a veteran who has been determined under 38 U.S.C. 3106 to have a serious employment handicap (i.e., a significant impairment of the veteran’s ability to prepare for, obtain, or retain employment consistent with the veteran’s abilities, aptitudes, and interests); or
- (2) A person who was discharged or released from active duty because of a service-connected disability.

“Veteran of the Vietnam era” means a person who—

- (1) Served on active duty for a period of more than 180 days and was discharged or released from active duty with other than a dishonorable discharge, if any part of such active duty occurred—
 - (i) In the Republic of Vietnam between February 28, 1961, and May 7, 1975; or
 - (ii) Between August 5, 1964, and May 7, 1975, in all other cases; or
 - (2) Was discharged or released from active duty for a service-connected disability if any part of the active duty was performed—
 - (i) In the Republic of Vietnam between February 28, 1961, and May 7, 1975; or
 - (ii) Between August 5, 1964, and May 7, 1975, in all other cases.
- (b) General.
- (1) The Contractor shall not discriminate against the individual because the individual is a special disabled veteran, a veteran of the Vietnam era, or other eligible veteran, regarding any position for which the employee or applicant for employment is qualified. The Contractor shall take affirmative action to employ, advance in employment, and otherwise treat qualified special disabled veterans, veterans of the Vietnam era, and other eligible veterans without discrimination based upon their disability or veterans' status in all employment practices such as—
 - (i) Recruitment, advertising, and job application procedures;
 - (ii) Hiring, upgrading, promotion, award of tenure, demotion, transfer, layoff, termination, right of return from layoff and rehiring;
 - (iii) Rate of pay or any other form of compensation and changes in compensation;
 - (iv) Job assignments, job classifications, organizational structures, position descriptions, lines of progression, and seniority lists;
 - (v) Leaves of absence, sick leave, or any other leave;
 - (vi) Fringe benefits available by virtue of employment, whether or not administered by the Contractor;
 - (vii) Selection and financial support for training, including apprenticeship, and on-the-job training under 38 U.S.C. 3687, professional meetings, conferences, and other related activities, and selection for leaves of absence to pursue training;
 - (viii) Activities sponsored by the Contractor including social or recreational programs; and
 - (ix) Any other term, condition, or privilege of employment.
 - (2) The Contractor shall comply with the rules, regulations, and relevant orders of the Secretary of Labor issued under the Vietnam Era Veterans' Readjustment Assistance Act of 1972 (the Act), as amended (38 U.S.C. 4211 and 4212).
- (c) Listing openings.
- (1) The Contractor shall immediately list all employment openings that exist at the time of the execution of this contract and those which occur during the performance of this contract, including those not generated by this contract, and including those occurring at an establishment of the Contractor other than the one where the contract is being performed, but excluding those of independently operated corporate affiliates, at an appropriate local public employment service office of the State wherein the opening

occurs. Listing employment openings with the U.S. Department of Labor's America's Job Bank shall satisfy the requirement to list jobs with the local employment service office.

- (2) The Contractor shall make the listing of employment openings with the local employment service office at least concurrently with using any other recruitment source or effort and shall involve the normal obligations of placing a bona fide job order, including accepting referrals of veterans and nonveterans. This listing of employment openings does not require hiring any particular job applicant or hiring from any particular group of job applicants and is not intended to relieve the Contractor from any requirements of Executive orders or regulations concerning nondiscrimination in employment.
 - (3) Whenever the Contractor becomes contractually bound to the listing terms of this clause, it shall advise the State public employment agency in each State where it has establishments of the name and location of each hiring location in the State. As long as the Contractor is contractually bound to these terms and has so advised the State agency, it need not advise the State agency of subsequent contracts. The Contractor may advise the State agency when it is no longer bound by this contract clause.
- (d) Applicability. This clause does not apply to the listing of employment openings that occur and are filled outside the 50 States, the District of Columbia, the Commonwealth of Puerto Rico, the Commonwealth of the northern Mariana Islands, American Samoa, Guam, the Virgin Islands of the United States, and Wake Island.
- (e) Postings.
- (1) The Contractor shall post employment notices in conspicuous places that are available to employees and applicants for employment.
 - (2) The employment notices shall—
 - (i) State the rights of applicants and employees as well as the Contractor's obligation under the law to take affirmative action to employ and advance in employment qualified employees and applicants who are special disabled veterans, veterans of the Vietnam era, and other eligible veterans; and
 - (ii) Be in a form prescribed by the Deputy Assistant Secretary for Federal Contract Compliance Programs, Department of Labor (Deputy Assistant Secretary of Labor), and provided by or through the Contracting Officer.
 - (3) The Contractor shall ensure that applicants or employees who are special disabled veterans are informed of the contents of the notice (e.g., the Contractor may have the notice read to a visually disabled veteran, or may lower the posted notice so that it can be read by a person in a wheel chair).
 - (4) The Contractor shall notify each labor union or representative of workers with which it has a collective bargaining agreement, or other contract understanding, that the Contractor is bound by the terms of the Act and is committed to take affirmative action to employ, and advance in employment, qualified special disabled veterans, veterans of the Vietnam Era, and other eligible veterans.

- (f) Noncompliance. If the Contractor does not comply with the requirements of this clause, the Government may take appropriate actions under the rules, regulations, and relevant orders of the Secretary of Labor issued pursuant to the Act.
- (g) Subcontracts. The Contractor shall insert the terms of this clause in all subcontracts or purchase orders of \$100,000 or more unless exempted by rules, regulations, or orders of the Secretary of Labor. The Contractor shall act as specified by the Deputy Assistant Secretary of Labor to enforce the terms, including action for noncompliance.

I.46 52.222-36 Affirmative Action for Workers with Disabilities (JUN 1998)

(a) General.

- (1) Regarding any position for which the employee or applicant for employment is qualified, the Contractor shall not discriminate against any employee or applicant because of physical or mental disability. The Contractor agrees to take affirmative action to employ, advance in employment, and otherwise treat qualified individuals with disabilities without discrimination based upon their physical or mental disability in all employment practices such as -
 - (i) Recruitment, advertising, and job application procedures;
 - (ii) Hiring, upgrading, promotion, award of tenure, demotion, transfer, layoff, termination, right of return from layoff, and rehiring;
 - (iii) Rates of pay or any other form of compensation and changes in compensation;
 - (iv) Job assignments, job classifications, organizational structures, position descriptions, lines of progression, and seniority lists;
 - (v) Leaves of absence, sick leave, or any other leave;
 - (vi) Fringe benefits available by virtue of employment, whether or not administered by the Contractor;
 - (vii) Selection and financial support for training, including apprenticeships, professional meetings, conferences, and other related activities, and selection for leaves of absence to pursue training;
 - (viii) Activities sponsored by the Contractor, including social or recreational programs; and
 - (ix) Any other term, condition, or privilege of employment.
- (2) The Contractor agrees to comply with the rules, regulations, and relevant orders of the Secretary of Labor (Secretary) issued under the Rehabilitation Act of 1973 (29 U.S.C. 793) (the Act), as amended.

(b) Postings.

- (1) The Contractor agrees to post employment notices stating -
 - (i) The Contractor's obligation under the law to take affirmative action to employ and advance in employment qualified individuals with disabilities; and
 - (ii) The rights of applicants and employees.
- (2) These notices shall be posted in conspicuous places that are available to employees and applicants for employment. The Contractor shall ensure that applicants and employees with disabilities are informed of the contents of the notice (*e.g.*, the Contractor may have the notice read to a visually disabled individual, or may lower the posted notice so that it might be read by a person in a wheelchair). The notices shall

be in a form prescribed by the Deputy Assistant Secretary for Federal Contract Compliance of the U.S. Department of Labor (Deputy Assistant Secretary) and shall be provided by or through the Contracting Officer.

- (3) The Contractor shall notify each labor union or representative of workers with which it has a collective bargaining agreement or other contract understanding, that the Contractor is bound by the terms of Section 503 of the Act and is committed to take affirmative action to employ, and advance in employment, qualified individuals with physical or mental disabilities.

(c) Noncompliance.

If the Contractor does not comply with the requirements of this clause, appropriate actions may be taken under the rules, regulations, and relevant orders of the Secretary issued pursuant to the Act.

(d) Subcontracts.

The Contractor shall include the terms of this clause in every subcontract or purchase order in excess of \$10,000 unless exempted by rules, regulations, or orders of the Secretary. The Contractor shall act as specified by the Deputy Assistant Secretary to enforce the terms, including action for noncompliance.

I.47 52.222-37 Employment Reports on Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (SEP 2006)

- (a) Unless the Contractor is a State or local government agency, the Contractor shall report at least annually, as required by the Secretary of Labor, on —
 - (1) The number of special disabled veterans, the number of veterans of the Vietnam era, and other eligible veterans in the workforce of the Contractor by job category and hiring location; and
 - (2) The total number of new employees hired during the period covered by the report, and of the total, the number of special disabled veterans, the number of veterans of the Vietnam era, and the number of other eligible veterans; and
 - (3) The maximum number and the minimum number of employees of the Contractor during the period covered by the report.
- (b) The Contractor shall report the above items by completing the Form VETS-100, entitled "Federal Contractor Veterans' Employment Report (VETS-100 Report)".
- (c) The Contractor shall submit VETS-100 Reports no later than September 30 of each year beginning September 30, 1988.
- (d) The employment activity report required by paragraph (a)(2) of this clause shall reflect total hires during the most recent 12-month period as of the ending date selected for the employment profile report required by paragraph (a)(1) of this clause. Contractors may select an ending date—
 - (1) As of the end of any pay period between July 1 and August 31 of the year the report is due, or

- (2) As of December 31, if the Contractor has prior written approval from the Equal Employment Opportunity Commission to do so for purposes of submitting the Employer Information Report EEO-1 (Standard Form 100).
- (e) The Contractor shall base the count of veterans reported according to paragraph (a) of this clause on voluntary disclosure. Each Contractor subject to the reporting requirements at 38 U.S.C. 4212 shall invite all special disabled veterans, veterans of the Vietnam era, and other eligible veterans who wish to benefit under the affirmative action program at 38 U.S.C. 4212 to identify themselves to the Contractor. The invitation shall state—
 - (1) That the information is voluntarily provided;
 - (2) That the information will be kept confidential;
 - (3) Disclosure or refusal to provide the information will not subject the applicant or employee to any adverse treatment; and
 - (4) The information will be used only in accordance with the regulations promulgated under 38 U.S.C. 4212.
- (f) The Contractor shall insert the terms of this clause in all subcontracts or purchase orders of \$100,000 or more unless exempted by rules, regulations, or orders of the Secretary of Labor.

I.48 52.222-39 Notification of Employee Rights Concerning Payment of Union Dues or Fees (DEC 2004)

- (a) Definition. As used in this clause—

“United States” means the 50 States, the District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, the U.S. Virgin Islands, and Wake Island.

- (b) Except as provided in paragraph (e) of this clause, during the term of this contract, the Contractor shall post a notice, in the form of a poster, informing employees of their rights concerning union membership and payment of union dues and fees, in conspicuous places in and about all its plants and offices, including all places where notices to employees are customarily posted. The notice shall include the following information (except that the information pertaining to National Labor Relations Board shall not be included in notices posted in the plants or offices of carriers subject to the Railway Labor Act, as amended (45 U.S.C. 151-188)).

Notice to Employees

Under Federal law, employees cannot be required to join a union or maintain membership in a union in order to retain their jobs. Under certain conditions, the law permits a union and an employer to enter into a union-security agreement requiring employees to pay uniform periodic dues and initiation fees. However, employees who are not union members can object to the use of their payments for certain purposes and can only be required to pay their share of union costs relating to collective bargaining, contract administration, and grievance adjustment.

If you do not want to pay that portion of dues or fees used to support activities not related to collective bargaining, contract administration, or grievance adjustment, you are entitled to an appropriate reduction in your payment. If you believe that you have been required to pay dues or fees used in part to support activities not related to collective bargaining, contract

administration, or grievance adjustment, you may be entitled to a refund and to an appropriate reduction in future payments.

For further information concerning your rights, you may wish to contact the National Labor Relations Board (NLRB) either at one of its Regional offices or at the following address or toll free number:

National Labor Relations Board
Division of Information
1099 14th Street, N.W.
Washington, DC 20570
1-866-667-6572
1-866-316-6572 (TTY)

To locate the nearest NLRB office, see NLRB's website at <http://www.nlr.gov>

- (c) The Contractor shall comply with all provisions of Executive Order 13201 of February 17, 2001, and related implementing regulations at 29 CFR Part 470, and orders of the Secretary of Labor.
- (d) In the event that the Contractor does not comply with any of the requirements set forth in paragraphs (b), (c), or (g), the Secretary may direct that this contract be cancelled, terminated, or suspended in whole or in part, and declare the Contractor ineligible for further Government contracts in accordance with procedures at 29 CFR part 470, Subpart B— Compliance Evaluations, Complaint Investigations and Enforcement Procedures. Such other sanctions or remedies may be imposed as are provided by 29 CFR Part 470, which implements Executive Order 13201, or as are otherwise provided by law.
- (e) The requirement to post the employee notice in paragraph (b) does not apply to—
 - (1) Contractors and subcontractors that employ fewer than 15 persons;
 - (2) Contractor establishments or construction work sites where no union has been formally recognized by the Contractor or certified as the exclusive bargaining representative of the Contractor's employees;
 - (3) Contractor establishments or construction work sites located in a jurisdiction named in the definition of the United States in which the law of that jurisdiction forbids enforcement of union-security agreements;
 - (4) Contractor facilities where upon the written request of the Contractor, the Department of Labor Deputy Assistant Secretary for Labor-Management Programs has waived the posting requirements with respect to any of the Contractor's facilities if the Deputy Assistant Secretary finds that the Contractor has demonstrated that—
 - (i) The facility is in all respects separate and distinct from activities of the Contractor related to the performance of a contract; and
 - (ii) Such a waiver will not interfere with or impede the effectuation of the Executive order; or
 - (5) Work outside the United States that does not involve the recruitment or employment of workers within the United States.
- (f) The Department of Labor publishes the official employee notice in two variations; one for contractors covered by the Railway Labor Act and a second for all other contractors. The

Contractor shall—

- (1) Obtain the required employee notice poster from the Division of Interpretations and Standards, Office of Labor-Management Standards, U.S. Department of Labor, 200 Constitution Avenue, NW, Room N-5605, Washington, DC 20210, or from any field office of the Department's Office of Labor-Management Standards or Office of Federal Contract Compliance Programs;
 - (2) Download a copy of the poster from the Office of Labor-Management Standards website at <http://www.olms.dol.gov>; or
 - (3) Reproduce and use exact duplicate copies of the Department of Labor's official poster.
- (g) The Contractor shall include the substance of this clause in every subcontract or purchase order that exceeds the simplified acquisition threshold, entered into in connection with this contract, unless exempted by the Department of Labor Deputy Assistant Secretary for Labor-Management Programs on account of special circumstances in the national interest under authority of 29 CFR 470.3(c). For indefinite quantity subcontracts, the Contractor shall include the substance of this clause if the value of orders in any calendar year of the subcontract is expected to exceed the simplified acquisition threshold. Pursuant to 29 CFR Part 470, Subpart B—Compliance Evaluations, Complaint Investigations and Enforcement Procedures, the Secretary of Labor may direct the Contractor to take such action in the enforcement of these regulations, including the imposition of sanctions for noncompliance with respect to any such subcontract or purchase order. If the Contractor becomes involved in litigation with a subcontractor or vendor, or is threatened with such involvement, as a result of such direction, the Contractor may request the United States, through the Secretary of Labor, to enter into such litigation to protect the interests of the United States.

I.49 52.222-41 Service Contract Act of 1965, as Amended (NOV 2007)

- (a) Definitions. As used in this clause—

"Act" means the Service Contract Act of 1965 (41 U.S.C. 351, *et seq.*).

"Contractor," when this clause is used in any subcontract, shall be deemed to refer to the subcontractor, except in the term "Government Prime Contractor."

"Service employee," as used in this clause, means any person engaged in the performance of this contract other than any person employed in a bona fide executive, administrative, or professional capacity, as these terms are defined in Part 541 of Title 29, Code of Federal Regulations, as revised. It includes all such persons regardless of any contractual relationship that may be alleged to exist between a Contractor or subcontractor and such persons.

- (b) Applicability.

This contract is subject to the following provisions and to all other applicable provisions of the Act and regulations of the Secretary of Labor (29 CFR Part 4). This clause does not apply to contracts or subcontracts administratively exempted by the Secretary of Labor or exempted by 41 U.S.C. 356, as interpreted in Subpart C of 29 CFR Part 4.

(c) Compensation.

- (1) Each service employee employed in the performance of this contract by the Contractor or any subcontractor shall be paid not less than the minimum monetary wages and shall be furnished fringe benefits in accordance with the wages and fringe benefits determined by the Secretary of Labor, or authorized representative, as specified in any wage determination attached to this contract.

- (2)
 - (i) If a wage determination is attached to this contract, the Contractor shall classify any class of service employee which is not listed therein and which is to be employed under the contract (*i.e.*, the work to be performed is not performed by any classification listed in the wage determination) so as to provide a reasonable relationship (*i.e.*, appropriate level of skill comparison) between such unlisted classifications and the classifications listed in the wage determination. Such conformed class of employees shall be paid the monetary wages and furnished the fringe benefits as are determined pursuant to the procedures in this paragraph (c).
 - (ii) This conforming procedure shall be initiated by the Contractor prior to the performance of contract work by the unlisted class of employee. The Contractor shall submit Standard Form (SF) 1444, Request For Authorization of Additional Classification and Rate, to the Contracting Officer no later than 30 days after the unlisted class of employee performs any contract work. The Contracting Officer shall review the proposed classification and rate and promptly submit the completed SF 1444 (which must include information regarding the agreement or disagreement of the employees' authorized representatives or the employees themselves together with the agency recommendation), and all pertinent information to the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor. The Wage and Hour Division will approve, modify, or disapprove the action or render a final determination in the event of disagreement within 30 days of receipt or will notify the Contracting Officer within 30 days of receipt that additional time is necessary.
 - (iii) The final determination of the conformance action by the Wage and Hour Division shall be transmitted to the Contracting Officer who shall promptly notify the Contractor of the action taken. Each affected employee shall be furnished by the Contractor with a written copy of such determination or it shall be posted as a part of the wage determination.
 - (iv)
 - (A) The process of establishing wage and fringe benefit rates that bear a reasonable relationship to those listed in a wage determination cannot be reduced to any single formula. The approach used may vary from wage determination to wage determination depending on the circumstances. Standard wage and salary administration practices which rank various job classifications by pay grade pursuant to point schemes or other job factors may, for example, be relied upon. Guidance may also be obtained from the way different jobs are rated under Federal pay systems (Federal Wage Board Pay System and the General Schedule) or from other wage determinations issued in the same locality. Basic to the establishment of any conformable wage rate(s) is the concept that a pay relationship should be maintained between job classifications based on the skill required and the duties performed.
 - (B) In the case of a contract modification, an exercise of an option, or extension of an existing contract, or in any other case where a Contractor succeeds a contract under which the classification in question was previously conformed pursuant to paragraph (c) of this clause, a new conformed wage rate and fringe benefits may be assigned to the conformed classification by indexing (*i.e.*, adjusting) the previous conformed rate and fringe benefits by an amount equal to the average (mean) percentage increase (or decrease,

where appropriate) between the wages and fringe benefits specified for all classifications to be used on the contract which are listed in the current wage determination, and those specified for the corresponding classifications in the previously applicable wage determination. Where conforming actions are accomplished in accordance with this paragraph prior to the performance of contract work by the unlisted class of employees, the Contractor shall advise the Contracting Officer of the action taken but the other procedures in subdivision (c)(2)(ii) of this clause need not be followed.

- (C) No employee engaged in performing work on this contract shall in any event be paid less than the currently applicable minimum wage specified under section 6(a)(1) of the Fair Labor Standards Act of 1938, as amended.
- (v) The wage rate and fringe benefits finally determined under this subparagraph (c)(2) of this clause shall be paid to all employees performing in the classification from the first day on which contract work is performed by them in the classification. Failure to pay the unlisted employees the compensation agreed upon by the interested parties and/or finally determined by the Wage and Hour Division retroactive to the date such class of employees commenced contract work shall be a violation of the Act and this contract.
- (vi) Upon discovery of failure to comply with subparagraph (c)(2) of this clause, the Wage and Hour Division shall make a final determination of conformed classification, wage rate, and/or fringe benefits which shall be retroactive to the date such class or classes of employees commenced contract work.

(3) Adjustment of compensation.

If the term of this contract is more than 1 year, the minimum monetary wages and fringe benefits required to be paid or furnished thereunder to service employees under this contract shall be subject to adjustment after 1 year and not less often than once every 2 years, under wage determinations issued by the Wage and Hour Division.

(d) Obligation to furnish fringe benefits.

The Contractor or subcontractor may discharge the obligation to furnish fringe benefits specified in the attachment or determined under subparagraph (c)(2) of this clause by furnishing equivalent combinations of bona fide fringe benefits, or by making equivalent or differential cash payments, only in accordance with Subpart D of 29 CFR Part 4.

(e) Minimum wage.

In the absence of a minimum wage attachment for this contract, neither the Contractor nor any subcontractor under this contract shall pay any person performing work under this contract (regardless of whether the person is a service employee) less than the minimum wage specified by section 6(a)(1) of the Fair Labor Standards Act of 1938. Nothing in this clause shall relieve the Contractor or any subcontractor of any other obligation under law or contract for payment of a higher wage to any employee.

(f) Successor contracts.

If this contract succeeds a contract subject to the Act under which substantially the same services were furnished in the same locality and service employees were paid wages and fringe benefits provided for in a collective bargaining agreement, in the absence of the minimum wage attachment for this contract setting forth such collectively bargained wage rates and fringe benefits, neither the Contractor nor any subcontractor under this contract shall pay any service employee performing any of the contract work (regardless of whether or

not such employee was employed under the predecessor contract), less than the wages and fringe benefits provided for in such collective bargaining agreement, to which such employee would have been entitled if employed under the predecessor contract, including accrued wages and fringe benefits and any prospective increases in wages and fringe benefits provided for under such agreement. No Contractor or subcontractor under this contract may be relieved of the foregoing obligation unless the limitations of 29 CFR 4.1b(b) apply or unless the Secretary of Labor or the Secretary's authorized representative finds, after a hearing as provided in 29 CFR 4.10 that the wages and/or fringe benefits provided for in such agreement are substantially at variance with those which prevail for services of a character similar in the locality, or determines, as provided in 29 CFR 4.11, that the collective bargaining agreement applicable to service employees employed under the predecessor contract was not entered into as a result of arm's length negotiations. Where it is found in accordance with the review procedures provided in 29 CFR 4.10 and/or 4.11 and Parts 6 and 8 that some or all of the wages and/or fringe benefits contained in a predecessor Contractor's collective bargaining agreement are substantially at variance with those which prevail for services of a character similar in the locality, and/or that the collective bargaining agreement applicable to service employees employed under the predecessor contract was not entered into as a result of arm's length negotiations, the Department will issue a new or revised wage determination setting forth the applicable wage rates and fringe benefits. Such determination shall be made part of the contract or subcontract, in accordance with the decision of the Administrator, the Administrative Law Judge, or Administrative Review Board, as the case may be, irrespective of whether such issuance occurs prior to or after the award of a contract or subcontract (53 Comp. Gen. 401 (1973)). In the case of a wage determination issued solely as a result of a finding of substantial variance, such determination shall be effective as of the date of the final administrative decision.

(g) Notification to employees.

The Contractor and any subcontractor under this contract shall notify each service employee commencing work on this contract of the minimum monetary wage and any fringe benefits required to be paid pursuant to this contract, or shall post the wage determination attached to this contract. The poster provided by the Department of Labor (Publication WH 1313) shall be posted in a prominent and accessible place at the worksite. Failure to comply with this requirement is a violation of section 2(a)(4) of the Act and of this contract.

(h) Safe and sanitary working conditions.

The Contractor or subcontractor shall not permit any part of the services called for by this contract to be performed in buildings or surroundings or under working conditions provided by or under the control or supervision of the Contractor or subcontractor which are unsanitary, hazardous, or dangerous to the health or safety of the service employees. The Contractor or subcontractor shall comply with the safety and health standards applied under 29 CFR Part 1925.

(i) Records.

- (1) The Contractor and each subcontractor performing work subject to the Act shall make and maintain for 3 years from the completion of the work, and make them available for inspection and transcription by authorized representatives of the Wage and Hour Division, Employment Standards Administration, a record of the following:
 - (i) For each employee subject to the Act -
 - (A) Name and address and social security number;
 - (B) Correct work classification or classifications, rate or rates of monetary wages paid and fringe benefits provided, rate or rates of payments in lieu of fringe benefits, and total daily and weekly compensation;
 - (C) Daily and weekly hours worked by each employee; and

- (D) Any deductions, rebates, or refunds from the total daily or weekly compensation of each employee.
 - (ii) For those classes of service employees not included in any wage determination attached to this contract, wage rates or fringe benefits determined by the interested parties or by the Administrator or authorized representative under the terms of paragraph (c) of this clause. A copy of the report required by subdivision (c)(2)(ii) of this clause will fulfill this requirement.
 - (iii) Any list of the predecessor Contractor's employees which had been furnished to the Contractor as prescribed by paragraph (n) of this clause.
- (2) The Contractor shall also make available a copy of this contract for inspection or transcription by authorized representatives of the Wage and Hour Division.
 - (3) Failure to make and maintain or to make available these records for inspection and transcription shall be a violation of the regulations and this contract, and in the case of failure to produce these records, the Contracting Officer, upon direction of the Department of Labor and notification to the Contractor, shall take action to cause suspension of any further payment or advance of funds until the violation ceases.
 - (4) The Contractor shall permit authorized representatives of the Wage and Hour Division to conduct interviews with employees at the worksite during normal working hours.
- (j) Pay periods.

The Contractor shall unconditionally pay to each employee subject to the Act all wages due free and clear and without subsequent deduction (except as otherwise provided by law or regulations, 29 CFR Part 4), rebate, or kickback on any account. These payments shall be made no later than one pay period following the end of the regular pay period in which the wages were earned or accrued. A pay period under this Act may not be of any duration longer than semi-monthly.

- (k) Withholding of payments and termination of contract.

The Contracting Officer shall withhold or cause to be withheld from the Government Prime Contractor under this or any other Government contract with the Prime Contractor such sums as an appropriate official of the Department of Labor requests or such sums as the Contracting Officer decides may be necessary to pay underpaid employees employed by the Contractor or subcontractor. In the event of failure to pay any employees subject to the Act all or part of the wages or fringe benefits due under the Act, the Contracting Officer may, after authorization or by direction of the Department of Labor and written notification to the Contractor, take action to cause suspension of any further payment or advance of funds until such violations have ceased. Additionally, any failure to comply with the requirements of this clause may be grounds for termination of the right to proceed with the contract work. In such event, the Government may enter into other contracts or arrangements for completion of the work, charging the Contractor in default with any additional cost.

- (l) Subcontracts.

The Contractor agrees to insert this clause in all subcontracts subject to the Act.

- (m) Collective bargaining agreements applicable to service employees.

If wages to be paid or fringe benefits to be furnished any service employees employed by the Government Prime Contractor or any subcontractor under the contract are provided for in a collective bargaining agreement which is or will be effective during any period in which the contract is being performed, the Government Prime Contractor shall report such fact to the

Contracting Officer, together with full information as to the application and accrual of such wages and fringe benefits, including any prospective increases, to service employees engaged in work on the contract, and a copy of the collective bargaining agreement. Such report shall be made upon commencing performance of the contract, in the case of collective bargaining agreements effective at such time, and in the case of such agreements or provisions or amendments thereof effective at a later time during the period of contract performance such agreements shall be reported promptly after negotiation thereof.

(n) Seniority list.

Not less than 10 days prior to completion of any contract being performed at a Federal facility where service employees may be retained in the performance of the succeeding contract and subject to a wage determination which contains vacation or other benefit provisions based upon length of service with a Contractor (predecessor) or successor (29 CFR 4.173), the incumbent Prime Contractor shall furnish the Contracting Officer a certified list of the names of all service employees on the Contractor's or subcontractor's payroll during the last month of contract performance. Such list shall also contain anniversary dates of employment on the contract either with the current or predecessor Contractors of each such service employee. The Contracting Officer shall turn over such list to the successor Contractor at the commencement of the succeeding contract.

(o) Rulings and interpretations.

Rulings and interpretations of the Act are contained in Regulations, 29 CFR Part 4.

(p) Contractor's certification.

- (1) By entering into this contract, the Contractor (and officials thereof) certifies that neither it (nor he or she) nor any person or firm who has a substantial interest in the Contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of the sanctions imposed under section 5 of the Act.
- (2) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract under section 5 of the Act.
- (3) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

(q) Variations, tolerances, and exemptions involving employment.

Notwithstanding any of the provisions in paragraphs (b) through (o) of this clause, the following employees may be employed in accordance with the following variations, tolerances, and exemptions, which the Secretary of Labor, pursuant to section 4(b) of the Act prior to its amendment by Pub. L. 92-473, found to be necessary and proper in the public interest or to avoid serious impairment of the conduct of Government business:

- (1) Apprentices, student-learners, and workers whose earning capacity is impaired by age, physical or mental deficiency, or injury may be employed at wages lower than the minimum wages otherwise required by section 2(a)(1) or 2(b)(1) of the Act without diminishing any fringe benefits or cash payments in lieu thereof required under section 2(a)(2) of the Act, in accordance with the conditions and procedures prescribed for the employment of apprentices, student-learners, handicapped persons, and handicapped clients of sheltered workshops under section 14 of the Fair Labor Standards Act of 1938, in the regulations issued by the Administrator (29 CFR Parts 520, 521, 524, and 525).

- (2) The Administrator will issue certificates under the Act for the employment of apprentices, student-learners, handicapped persons, or handicapped clients of sheltered workshops not subject to the Fair Labor Standards Act of 1938, or subject to different minimum rates of pay under the two acts, authorizing appropriate rates of minimum wages (but without changing requirements concerning fringe benefits or supplementary cash payments in lieu thereof), applying procedures prescribed by the applicable regulations issued under the Fair Labor Standards Act of 1938 (29 CFR Parts 520, 521, 524, and 525).
- (3) The Administrator will also withdraw, annul, or cancel such certificates in accordance with the regulations in 29 CFR Parts 525 and 528.

(r) Apprentices.

Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed and individually registered in a bona fide apprenticeship program registered with a State Apprenticeship Agency which is recognized by the U.S. Department of Labor, or if no such recognized agency exists in a State, under a program registered with the Office of Apprenticeship Training, Employer, and Labor Services (OATELS), U.S. Department of Labor. Any employee who is not registered as an apprentice in an approved program shall be paid the wage rate and fringe benefits contained in the applicable wage determination for the journeyman classification of work actually performed. The wage rates paid apprentices shall not be less than the wage rate for their level of progress set forth in the registered program, expressed as the appropriate percentage of the journeyman's rate contained in the applicable wage determination. The allowable ratio of apprentices to journeymen employed on the contract work in any craft classification shall not be greater than the ratio permitted to the Contractor as to his entire work force under the registered program.

(s) Tips.

An employee engaged in an occupation in which the employee customarily and regularly receives more than \$30 a month in tips may have the amount of these tips credited by the employer against the minimum wage required by section 2(a)(1) or section 2(b)(1) of the Act, in accordance with section 3(m) of the Fair Labor Standards Act and Regulations, 29 CFR Part 531. However, the amount of credit shall not exceed \$1.34 per hour beginning January 1, 1981. To use this provision -

- (1) The employer must inform tipped employees about this tip credit allowance before the credit is utilized;
- (2) The employees must be allowed to retain all tips (individually or through a pooling arrangement and regardless of whether the employer elects to take a credit for tips received);
- (3) The employer must be able to show by records that the employee receives at least the applicable Service Contract Act minimum wage through the combination of direct wages and tip credit; and
- (4) The use of such tip credit must have been permitted under any predecessor collective bargaining agreement applicable by virtue of section 4(c) of the Act.

(t) Disputes concerning labor standards.

The U.S. Department of Labor has set forth in 29 CFR Parts 4, 6, and 8 procedures for resolving disputes concerning labor standards requirements. Such disputes shall be resolved

in accordance with those procedures and not the Disputes clause of this contract. Disputes within the meaning of this clause include disputes between the Contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

I.50 52.222-42 Statement of Equivalent Rates for Federal Hires (MAY 1989)

In compliance with the Service Contract Act of 1965, as amended, and the regulations of the Secretary of Labor (29 CFR Part 4), this clause identifies the classes of service employees expected to be employed under the contract and states the wages and fringe benefits payable to each if they were employed by the contracting agency subject to the provisions of 5 U.S.C. 5341 or 5332.

This Statement is for Information Only: It is not a Wage Determination

Employee Class	Monetary Wage - Fringe Benefits
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None

I.51 52.222-50 Combating Trafficking in Persons (AUG 2007)

(a) Definitions. As used in this clause—

“Coercion” means—

- (1) Threats of serious harm to or physical restraint against any person;
- (2) Any scheme, plan, or pattern intended to cause a person to believe that failure to perform an act would result in serious harm to or physical restraint against any person;
or
- (3) The abuse or threatened abuse of the legal process.

“Commercial sex act” means any sex act on account of which anything of value is given to or received by any person.

“Debt bondage” means the status or condition of a debtor arising from a pledge by the debtor of his or her personal services or of those of a person under his or her control as a security for debt, if the value of those services as reasonably assessed is not applied toward the liquidation of the debt or the length and nature of those services are not respectively limited and defined.

“Employee” means an employee of the Contractor directly engaged in the performance of work under the contract who has other than a minimal impact or involvement in contract performance.

“Individual” means a Contractor that has no more than one employee including the Contractor.

“Involuntary servitude” includes a condition of servitude induced by means of—

- (1) Any scheme, plan, or pattern intended to cause a person to believe that, if the person did not enter into or continue in such conditions, that person or another person would suffer serious harm or physical restraint; or

(2) The abuse or threatened abuse of the legal process.

“Severe forms of trafficking in persons” means—

- (1) Sex trafficking in which a commercial sex act is induced by force, fraud, or coercion, or in which the person induced to perform such act has not attained 18 years of age; or
- (2) The recruitment, harboring, transportation, provision, or obtaining of a person for labor or services, through the use of force, fraud, or coercion for the purpose of subjection to involuntary servitude, peonage, debt bondage, or slavery.

“Sex trafficking” means the recruitment, harboring, transportation, provision, or obtaining of a person for the purpose of a commercial sex act.

(b) Policy. The United States Government has adopted a zero tolerance policy regarding trafficking in persons. Contractors and contractor employees shall not—

- (1) Engage in severe forms of trafficking in persons during the period of performance of the contract;
- (2) Procure commercial sex acts during the period of performance of the contract; or
- (3) Use forced labor in the performance of the contract.

(c) Contractor requirements. The Contractor shall—

- (1) Notify its employees of—
 - (i) The United States Government’s zero tolerance policy described in paragraph (b) of this clause; and
 - (ii) The actions that will be taken against employees for violations of this policy. Such actions may include, but are not limited to, removal from the contract, reduction in benefits, or termination of employment; and
- (2) Take appropriate action, up to and including termination, against employees or subcontractors that violate the policy in paragraph (b) of this clause.

(d) Notification. The Contractor shall inform the Contracting Officer immediately of—

- (1) Any information it receives from any source (including host country law enforcement) that alleges a Contractor employee, subcontractor, or subcontractor employee has engaged in conduct that violates this policy; and
- (2) Any actions taken against Contractor employees, subcontractors, or subcontractors employees pursuant to this clause.

(e) Remedies. In addition to other remedies available to the Government, the Contractor’s failure to comply with the requirements of paragraphs (c), (d), or (f) of this clause may render the Contractor subject to—

- (1) Required removal of a Contractor employee or employees from the performance of the contract;
- (2) Required subcontractor termination;

- (3) Suspension of contract payments;
 - (4) Loss of award fee, consistent with the award fee plan, for the performance period in which the Government determined Contractor non-compliance;
 - (5) Termination of the contract for default or cause, in accordance with the termination clause of this contract; or
 - (6) Suspension or debarment.
- (f) Subcontracts. The Contractor shall include the substance of this clause, including this paragraph (f), in all subcontracts.

I.52 52.223-3 Hazardous Material Identification and Material Safety Data (JAN 1997)

- (a) "Hazardous material," as used in this clause, includes any material defined as hazardous under the latest version of Federal Standard No. 313 (including revisions adopted during the term of the contract).
- (b) The offeror must list any hazardous material, as defined in paragraph (a) of this clause, to be delivered under this contract. The hazardous material shall be properly identified and include any applicable identification number, such as National Stock Number or Special Item Number. This information shall also be included on the Material Safety Data Sheet submitted under this contract.

Material (If none, insert "None")	Identification No.

- (c) This list must be updated during performance of the contract whenever the Contractor determines that any other material to be delivered under this contract is hazardous.
- (d) The apparently successful offeror agrees to submit, for each item as required prior to award, a Material Safety Data Sheet, meeting the requirements of 29 CFR 1910.1200(g) and the latest version of Federal Standard No. 313, for all hazardous material identified in paragraph (b) of this clause. Data shall be submitted in accordance with Federal Standard No. 313, whether or not the apparently successful offeror is the actual manufacturer of these items. Failure to submit the Material Safety Data Sheet prior to award may result in the apparently successful offeror being considered nonresponsible and ineligible for award.
- (e) If, after award, there is a change in the composition of the item(s) or a revision to Federal Standard No. 313, which renders incomplete or inaccurate the data submitted under paragraph (d) of this clause, the Contractor shall promptly notify the Contracting Officer and resubmit the data.
- (f) Neither the requirements of this clause nor any act or failure to act by the Government shall relieve the Contractor of any responsibility or liability for the safety of Government, Contractor, or subcontractor personnel or property.

- (g) Nothing contained in this clause shall relieve the Contractor from complying with applicable Federal, State, and local laws, codes, ordinances, and regulations (including the obtaining of licenses and permits) in connection with hazardous material.
- (h) The Government's rights in data furnished under this contract with respect to hazardous material are as follows:
 - (1) To use, duplicate and disclose any data to which this clause is applicable. The purposes of this right are to —
 - (i) Apprise personnel of the hazards to which they may be exposed in using, handling, packaging, transporting, or disposing of hazardous materials;
 - (ii) Obtain medical treatment for those affected by the material; and
 - (iii) Have others use, duplicate, and disclose the data for the Government for these purposes.
 - (2) To use, duplicate, and disclose data furnished under this clause, in accordance with subparagraph (h)(1) of this clause, in precedence over any other clause of this contract providing for rights in data.
 - (3) The Government is not precluded from using similar or identical data acquired from other sources.

I.53 52.223-5 Pollution Prevention and Right-to-Know Information (As Modified by AL 2008-05)

- (a) Definitions. As used in this clause—

Priority chemical means a chemical identified by the Interagency Environmental Leadership Workgroup or, alternatively, by an agency pursuant to Implementing Instruction VIII of Executive Order 13423 of April 21, 2000, Greening the Government through Leadership in Environmental Management.

Toxic chemical means a chemical or chemical category listed in 40 CFR 372.65.

- (b) Executive Order 13148 requires Federal facilities to comply with the provisions of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) (42 U.S.C. 11001-11050) and the Pollution Prevention Act of 1990 (PPA) (42 U.S.C. 13101-13109).
- (c) The Contractor shall provide all information needed by the Federal facility to comply with the following:
 - (1) The emergency planning reporting requirements of section 302 of EPCRA.
 - (2) The emergency notice requirements of section 304 of EPCRA.
 - (3) The list of Material Safety Data Sheets, required by section 311 of EPCRA.
 - (4) The emergency and hazardous chemical inventory forms of section 312 of EPCRA.
 - (5) The toxic chemical release inventory of section 313 of EPCRA, which includes the reduction and recycling information required by section 6607 of PPA.
 - (6) The toxic chemical, priority chemical, and hazardous substance release and use reduction goals of Implementing Instruction VIII of Executive Order 13423.

I.54 52.223-6 Drug-Free Workplace (MAY 2001)

(a) Definitions. As used in this clause—

"Controlled substance" means a controlled substance in schedules I through V of section 202 of the Controlled Substances Act (21 U.S.C. 812) and as further defined in regulation at 21 CFR 1308.11 - 1308.15.

"Conviction" means a finding of guilt (including a plea of nolo contendere) or imposition of sentence, or both, by any judicial body charged with the responsibility to determine violations of the Federal or State criminal drug statutes.

"Criminal drug statute" means a Federal or non-Federal criminal statute involving the manufacture, distribution, dispensing, possession, or use of any controlled substance.

"Drug-free workplace" means the site(s) for the performance of work done by the Contractor in connection with a specific contract where employees of the Contractor are prohibited from engaging in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance.

"Employee" means an employee of a Contractor directly engaged in the performance of work under a Government contract. "Directly engaged" is defined to include all direct cost employees and any other Contractor employee who has other than a minimal impact or involvement in contract performance.

"Individual" means an offeror/contractor that has no more than one employee including the offeror/contractor.

- (b) The Contractor, if other than an individual, shall - within 30 days after award (unless a longer period is agreed to in writing for contracts of 30 days or more performance duration), or as soon as possible for contracts of less than 30 days performance duration -
- (1) Publish a statement notifying its employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the Contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition;
 - (2) Establish an ongoing drug-free awareness program to inform such employees about -
 - (i) The dangers of drug abuse in the workplace;
 - (ii) The Contractor's policy of maintaining a drug-free workplace;
 - (iii) Any available drug counseling, rehabilitation, and employee assistance programs; and
 - (iv) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;
 - (3) Provide all employees engaged in performance of the contract with a copy of the statement required by subparagraph (b)(1) of this clause;
 - (4) Notify such employees in writing in the statement required by subparagraph (b)(1) of this clause that, as a condition of continued employment on this contract, the employee will -

- (i) Abide by the terms of the statement; and
 - (ii) Notify the employer in writing of the employee's conviction under a criminal drug statute for a violation occurring in the workplace no later than 5 days after such conviction;
- (5) Notify the Contracting Officer in writing within 10 days after receiving notice under subdivision (b)(4)(ii) of this clause, from an employee or otherwise receiving actual notice of such conviction. The notice shall include the position title of the employee;
- (6) Within 30 days after receiving notice under subdivision (b)(4)(ii) of this clause of a conviction, take one of the following actions with respect to any employee who is convicted of a drug abuse violation occurring in the workplace:
- (i) Taking appropriate personnel action against such employee, up to and including termination; or
 - (ii) Require such employee to satisfactorily participate in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency; and
- (7) Make a good faith effort to maintain a drug-free workplace through implementation of subparagraphs (b)(1) through (b)(6) of this clause.
- (c) The Contractor, if an individual, agrees by award of the contract or acceptance of a purchase order, not to engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance while performing this contract.
- (d) In addition to other remedies available to the Government, the Contractor's failure to comply with the requirements of paragraph (b) or (c) of this clause may, pursuant to FAR 23.506, render the Contractor subject to suspension of contract payments, termination of the contract or default, and suspension or debarment.

I.55 52.223-10 Waste Reduction Program (As Modified by AL 2008-05)

- (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 3(a) of Executive Order 13423, 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).

I.56 52.223-14 Toxic Chemical Release Reporting (AUG 2003)

- (a) Unless otherwise exempt, the Contractor, as owner or operator of a facility used in the performance of this contract, shall file by July 1 for the prior calendar year an annual Toxic Chemical Release Inventory Form (Form R) as described in sections 313(a) and (g) of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) (42 U.S.C. 11023(a) and (g)), and section 6607 of the Pollution Prevention Act of 1990 (PPA) (42 U.S.C. 13106). The Contractor shall file, for each facility subject to the Form R filing and reporting requirements, the annual Form R throughout the life of the contract.
- (b) A Contractor-owned or -operated facility used in the performance of this contract is exempt from the requirement to file an annual Form R if—
- (1) The facility does not manufacture, process, or otherwise use any toxic chemicals listed in 40 CFR 372.65;
 - (2) The facility does not have 10 or more full-time employees as specified in section 313(b)(1)(A) of EPCRA, 42 U.S.C. 11023(b)(1)(A);
 - (3) The facility does not meet the reporting thresholds of toxic chemicals established under section 313(f) of EPCRA, 42 U.S.C. 11023(f) (including the alternate thresholds at 40 CFR 372.27, provided an appropriate certification form has been filed with EPA);
 - (4) The facility does not fall within the following Standard Industrial Classification (SIC) codes or their corresponding North American Industry Classification System sectors:
 - (i) Major group code 10 (except 1011, 1081, and 1094.
 - (ii) Major group code 12 (except 1241).
 - (iii) Major group codes 20 through 39.
 - (iv) Industry code 4911, 4931, or 4939 (limited to facilities that combust coal and/or oil for the purpose of generating power for distribution in commerce).
 - (v) Industry code 4953 (limited to facilities regulated under the Resource Conservation and Recovery Act, Subtitle C (42 U.S.C. 6921, et seq.)), 5169, 5171, or 7389 (limited to facilities primarily engaged in solvent recovery services on a contract or fee basis); or
 - (5) The facility is not located in the United States or its outlying areas.
- (c) If the Contractor has certified to an exemption in accordance with one or more of the criteria in paragraph (b) of this clause, and after award of the contract circumstances change so that any of its owned or operated facilities used in the performance of this contract is no longer exempt -
- (1) The Contractor shall notify the Contracting Officer; and
 - (2) The Contractor, as owner or operator of a facility used in the performance of this contract that is no longer exempt, shall -
 - (i) Submit a Toxic Chemical Release Inventory Form (Form R) on or before July 1 for the prior calendar year during which the facility becomes eligible; and
 - (ii) Continue to file the annual Form R for the life of the contract for such facility.

- (d) The Contracting Officer may terminate this contract or take other action as appropriate, if the Contractor fails to comply accurately and fully with the EPCRA and PPA toxic chemical release filing and reporting requirements.
- (e) Except for acquisitions of commercial items as defined in FAR Part 2, the Contractor shall -
 - (1) For competitive subcontracts expected to exceed \$100,000 (including all options), include a solicitation provision substantially the same as the provision at FAR 52.223-13, Certification of Toxic Chemical Release Reporting; and
 - (2) Include in any resultant subcontract exceeding \$100,000 (including all options), the substance of this clause, except this paragraph (e).

I.57 52.224-1 Privacy Act Notification (APR 1984)

The Contractor will be required to design, develop, or operate a system of records on individuals, to accomplish an agency function subject to the Privacy Act of 1974, Public Law 93-579, December 31, 1974 (5 U.S.C. 552a) and applicable agency regulations. Violation of the Act may involve the imposition of criminal penalties.

I.58 52.224-2 Privacy Act (APR 1984)

- (a) The Contractor agrees to -
 - (1) Comply with the Privacy Act of 1974 (the Act) and the agency rules and regulations issued under the Act in the design, development, or operation of any system of records on individuals to accomplish an agency function when the contract specifically identifies -
 - (i) The systems of records; and
 - (ii) The design, development, or operation work that the contractor is to perform;
 - (2) Include the Privacy Act notification contained in this contract in every solicitation and resulting subcontract and in every subcontract awarded without a solicitation, when the work statement in the proposed subcontract requires the redesign, development, or operation of a system of records on individuals that is subject to the Act; and
 - (3) Include this clause, including this subparagraph (3), in all subcontracts awarded under this contract which requires the design, development, or operation of such a system of records.
- (b) In the event of violations of the Act, a civil action may be brought against the agency involved when the violation concerns the design, development, or operation of a system of records on individuals to accomplish an agency function, and criminal penalties may be imposed upon the officers or employees of the agency when the violation concerns the operation of a system of records on individuals to accomplish an agency function. For purposes of the Act, when the contract is for the operation of a system of records on individuals to accomplish an agency function, the Contractor is considered to be an employee of the agency.
- (c) (1) "Operation of a system of records," as used in this clause, means performance of any of the activities associated with maintaining the system of records, including the collection, use, and dissemination of records.
- (2) "Record," as used in this clause, means any item, collection, or grouping of information about an individual that is maintained by an agency, including, but not limited to,

education, financial transactions, medical history, and criminal or employment history and that contains the person's name, or the identifying number, symbol, or other identifying particular assigned to the individual, such as a fingerprint or voiceprint or a photograph.

- (3) "System of records on individuals," as used in this clause, means a group of any records under the control of any agency from which information is retrieved by the name of the individual or by some identifying number, symbol, or other identifying particular assigned to the individual.

I.59 52.225-1 Buy American Act – Supplies (JUN 2003)

(a) Definitions. As used in this clause -

"Component" means an article, material, or supply incorporated directly into an end product.

"Cost of components" means -

- (1) For components purchased by the Contractor, the acquisition cost, including transportation costs to the place of incorporation into the end product (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or
- (2) For components manufactured by the Contractor, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (1) of this definition, plus allocable overhead costs, but excluding profit. Cost of components does not include any costs associated with the manufacture of the end product.

"Domestic end product" means -

- (1) An unmanufactured end product mined or produced in the United States; or
- (2) An end product manufactured in the United States, if the cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind as those that the agency determines are not mined, produced, or manufactured in sufficient and reasonably available commercial quantities of a satisfactory quality are treated as domestic. Scrap generated, collected, and prepared for processing in the United States is considered domestic.

"End product" means those articles, materials, and supplies to be acquired under the contract for public use.

"Foreign end product" means an end product other than a domestic end product.

"United States" means the 50 States, the District of Columbia, and outlying areas.

- (b) The Buy American Act (41 U.S.C. 10a-10d) provides a preference for domestic end products for supplies acquired for use in the United States.

- (c) Offerors may obtain from the Contracting Officer a list of foreign articles that the Contracting Officer will treat as domestic for this contract.
- (d) The Contractor shall deliver only domestic end products except to the extent that it specified delivery of foreign end products in the provision of the solicitation entitled "Buy American Act - Certificate."

I.60 52.225-13 Restrictions on Certain Foreign Purchases (FEB 2006)

- (a) Except as authorized by the Office of Foreign Assets Control (OFAC) in the Department of the Treasury, the Contractor shall not acquire, for use in the performance of this contract, any supplies or services if any proclamation, Executive order, or statute administered by OFAC, or if OFAC's implementing regulations at 31 CFR chapter V, would prohibit such a transaction by a person subject to the jurisdiction of the United States.
- (b) Except as authorized by OFAC, most transactions involving Cuba, Iran, and Sudan are prohibited, as are most imports from North Korea, into the United States or its outlying areas. Lists of entities and individuals subject to economic sanctions are included in OFAC's List of Specially Designated Nationals and Blocked Persons at <http://www.treas.gov/offices/enforcement/ofac/sdn>. More information about these restrictions, as well as updates, is available in the OFAC's regulations at 31 CFR chapter V and/or on OFAC's Web site at <http://www.treas.gov/offices/enforcement/ofac>.
- (c) The Contractor shall **insert this clause, including this paragraph (c), in all subcontracts.**

I.61 52.227-1 Authorization and Consent (DEC 2007)

- (a) The Government authorizes and consents to all use and manufacture, in performing this contract or any subcontract at any tier, of any invention described in and covered by a United States patent
 - (1) Embodied in the structure or composition of any article the delivery of which is accepted by the Government under this contract; or
 - (2) Used in machinery, tools, or methods whose use necessarily results from compliance by the Contractor or a subcontractor with
 - (i) specifications or written provisions forming a part of this contract or
 - (ii) specific written instructions given by the Contracting Officer directing the manner of performance. The entire liability to the Government for infringement of a United States patent shall be determined solely by the provisions of the indemnity clause, if any, included in this contract or any subcontract hereunder (including any lower tier subcontract), and the Government assumes liability for all other infringement to the extent of the authorization and consent hereinabove granted.
- (b) The Contractor shall include the substance of this clause, including this paragraph (b), in all subcontracts that are expected to exceed the simplified acquisition threshold. However, omission of this clause from any subcontract, including those at or below the simplified acquisition threshold, does not affect this authorization and consent.

I.62 52.227-2 Notice and Assistance Regarding Patent and Copyright Infringement (DEC 2007)

- (a) The Contractor shall report to the Contracting Officer, promptly and in reasonable written detail, each notice or claim of patent or copyright infringement based on the performance of this contract of which the Contractor has knowledge.
- (b) In the event of any claim or suit against the Government on account of any alleged patent or copyright infringement arising out of the performance of this contract or out of the use of any supplies furnished or work or services performed under this contract, the Contractor shall furnish to the Government, when requested by the Contracting Officer, all evidence and information in Contractor's possession pertaining to claim or suit. Such evidence and information shall be furnished at the expense of the Government except where the Contractor has agreed to indemnify the Government.
- (c) The Contractor shall include, the substance of this clause, including this paragraph (c), in all subcontracts that are expected to exceed the simplified acquisition threshold at FAR 2.101.

I.63 52.227-3 Patent Indemnity (APR 1984)

- (a) The Contractor shall indemnify the Government and its officers, agents, and employees against liability, including costs, for infringement of any United States patent (except a patent issued upon an application that is now or may hereafter be withheld from issue pursuant to a Secrecy Order under 35 U.S.C. 181) arising out of the manufacture or delivery of supplies, the performance of services, or the construction, alteration, modification, or repair of real property (hereinafter referred to as construction work) under this contract, or out of the use or disposal by or for the account of the Government of such supplies or construction work.
- (b) This indemnity shall not apply unless the Contractor shall have been informed as soon as practicable by the Government of the suit or action alleging such infringement and shall have been given such opportunity as is afforded by applicable laws, rules, or regulations to participate in its defense. Further, this indemnity shall not apply to (1) an infringement resulting from compliance with specific written instructions of the Contracting Officer directing a change in the supplies to be delivered or in the materials or equipment to be used, or directing a manner of performance of the contract not normally used by the Contractor, (2) an infringement resulting from addition to or change in supplies or components furnished or construction work performed that was made subsequent to delivery or performance, or (3) a claimed infringement that is unreasonably settled without the consent of the Contractor, unless required by final decree of a court of competent jurisdiction.

I.64 952.227-9 Refund of Royalties (FEB 1995)

- (a) The contract price includes certain amounts for royalties payable by the Contractor or subcontractors or both, which amounts have been reported to the Contracting Officer.
- (b) The term "royalties" as used in this clause refers to any costs or charges in the nature of royalties, license fees, patent or license amortization costs, or the like, for the use of or for rights in patents and patent applications in connection with performing this contract or any subcontract here-under. The term also includes any costs or charges associated with the access to, use of, or other right pertaining to data that is represented to be proprietary and is related to the performance of this contract or the copying of such data or data that is copyrighted.

- (c) The Contractor shall furnish to the Contracting Officer, before final payment under this contract, a statement of royalties paid or required to be paid in connection with performing this contract and subcontracts hereunder together with the reasons.
- (d) The Contractor will be compensated for royalties reported under paragraph (c) of this clause, only to the extent that such royalties were included in the contract price and are determined by the Contracting Officer to be properly chargeable to the Government and allocable to the contract. To the extent that any royalties that are included in the contract price are not, in fact, paid by the Contractor or are determined by the Contracting Officer not to be properly chargeable to the government and allocable to the contract, the contract price shall be reduced. Repayment or credit to the Government shall be made as the Contracting Officer directs. The approval by DOE of any individual payments or royalties shall not prevent the Government from contesting at any time the enforceability, validity, scope of, or title to, any patent or the proprietary nature of data pursuant to which a royalty or other payment is to be or has been made.
- (e) If, at any time within 3 years after final payment under this contract, the Contractor for any reason is relieved in whole or in part from the payment of the royalties included in the final contract price as adjusted pursuant to paragraph (d) of this clause, the Contractor shall promptly notify the Contracting Officer of that fact and shall reimburse the Government in a corresponding amount.
- (f) The substance of this clause, including this paragraph (f), shall be included in any subcontract in which the amount of royalties reported during negotiation of the subcontract exceeds \$250.

I.65 952.227-11 Patent rights – Retention by the Contractor (short form) (FEB 1995) (as modified per 927.303(c))

- (a) Definitions.
 - (1) "Invention" means any invention or discovery which is or may be patentable or otherwise protectable under title 35 of the United States Code, or any novel variety of plant which is or may be protected under the Plant Variety Protection Act (7 U.S.C. 2321, et seq.).
 - (2) "Made" when used in relation to any invention means the conception of first actual reduction to practice of such invention.
 - (3) "Nonprofit organization" means a university or other institution of higher education or an organization of the type described in section 501(c)(3) of the Internal Revenue Code of 1954 (26 U.S.C. 501(c)) and exempt from taxation under section 501(a) of the Internal Revenue Code (26 U.S.C. 501(a)) or any nonprofit scientific or educational organization qualified under a state nonprofit organization statute.
 - (4) "Practical application" means to manufacture, in the case of a composition or product; to practice, in the case of a process or method; or to operate, in the case of a machine or system; and, in each case, under such conditions as to establish that the invention is being utilized and that its benefits are, to the extent permitted by law or Government regulations, available to the public on reasonable terms.
 - (5) "Small business firm" means a small business concern as defined at section 2 of Pub. L. 85-536 (15 U.S.C. 632) and implementing regulations of the Administrator of the Small Business Administration. For the purpose of this clause, the size standards for

small business concerns involved in Government procurement and subcontracting at 13 CFR 121.3-8 and 13 CFR 121.3-12, respectively, will be used.

- (6) "Subject invention" means any invention of the contractor conceived or first actually reduced to practice in the performance of work under this contract, provided that in the case of a variety of plant, the date of determination (as defined in section 41(d) of the Plant Variety Protection Act, 7 U.S.C. 2401(d)) must also occur during the period of contract performance.
 - (7) "Agency licensing regulations" and "agency regulations concerning the licensing of Government-owned inventions" mean the Department of Energy patent licensing regulations at 10 CFR Part 781.
- (b) Allocation of principal rights. The Contractor may retain the entire right, title, and interest throughout the world to each subject invention subject to the provisions of this clause and 35 U.S.C. 203. With respect to any subject invention in which the Contractor retains title, the Federal Government shall have a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States the subject invention throughout the world.
- (c) Invention disclosure, election of title, and filing of patent application by Contractor.
- (1) The Contractor will disclose each subject invention to the Department of Energy (DOE) within 2 months after the inventor discloses it in writing to Contractor personnel responsible for patent matters. The disclosure to DOE shall be in the form of a written report and shall identify the contract under which the invention was made and the inventor(s). It shall be sufficiently complete in technical detail to convey a clear understanding to the extent known at the time of the disclosure, of the nature, purpose, operation, and the physical, chemical, biological or electrical characteristics of the invention. The disclosure shall also identify any publication, on sale or public use of the invention and whether a manuscript describing the invention has been submitted for publication and, if so, whether it has been accepted for publication at the time of disclosure. In addition, after disclosure to the DOE, the Contractor will promptly notify that agency of the acceptance of any manuscript describing the invention for publication or of any on sale or public use planned by the Contractor.
 - (2) The Contractor will elect in writing whether or not to retain title to any such invention by notifying DOE within 2 years of disclosure to DOE. However, in any case where publication, on sale or public use has initiated the 1-year statutory period wherein valid patent protection can still be obtained in the United States, the period for election of title may be shortened by DOE to a date that is no more than 60 days prior to the end of the statutory period.
 - (3) The Contractor will file its initial patent application on a subject invention to which it elects to retain title within 1 year after election of title or, if earlier, prior to the end of any statutory period wherein valid patent protection can be obtained in the United States after a publication, on sale, or public use. The Contractor will file patent applications in additional countries or international patent offices within either 10 months of the corresponding initial patent application or 6 months from the date permission is granted by the Commissioner of Patents and Trademarks to file foreign patent applications where such filing has been prohibited by a Secrecy Order.
 - (4) Requests for extension of the time for disclosure, election, and filing under subparagraphs (c)(1), (2), and (3) of this clause may, at the discretion of the agency, be granted.

- (d) Conditions when the Government may obtain title. The Contractor will convey to the Federal agency, upon written request, title to any subject invention—
- (1) If the Contractor fails to disclose or elect title to the subject invention within the times specified in paragraph (c) of this clause, or elects not to retain title; provided, that DOE may only request title within 60 days after learning of the failure of the Contractor to disclose or elect within the specified times.
 - (2) In those countries in which the Contractor fails to file patent applications within the times specified in paragraph (c) of this clause; provided, however, that if the Contractor has filed a patent application in a country after the times specified in paragraph (c) of this clause, but prior to its receipt of the written request of the Federal agency, the Contractor shall continue to retain title in that country.
 - (3) In any country in which the Contractor decides not to continue the prosecution of any application for, to pay the maintenance fees on, or defend in reexamination or opposition proceeding on, a patent on a subject invention.
- (e) Minimum rights to Contractor and protection of the Contractor right to file.
- (1) The Contractor will retain a nonexclusive royalty-free license throughout the world in each subject invention to which the Government obtains title, except if the Contractor fails to disclose the invention within the times specified in paragraph (c) of this clause. The Contractor's license extends to its domestic subsidiary and affiliates, if any, within the corporate structure of which the Contractor is a party and includes the right to grant sublicenses of the same scope to the extent the Contractor was legally obligated to do so at the time the contract was awarded. The license is transferable only with the approval of the Federal agency, except when transferred to the successor of that part of the Contractor's business to which the invention pertains.
 - (2) The Contractor's domestic license may be revoked or modified by DOE to the extent necessary to achieve expeditious practical application of subject invention pursuant to an application for an exclusive license submitted in accordance with applicable provisions at 37 CFR Part 404 and agency licensing regulations. This license will not be revoked in that field of use or the geographical areas in which the Contractor has achieved practical application and continues to make the benefits of the invention reasonably accessible to the public. The license in any foreign country may be revoked or modified at the discretion of DOE to the extent the Contractor, its licensees, or the domestic subsidiaries or affiliates have failed to achieve practical application in that foreign country.
 - (3) Before revocation or modification of the license, DOE will furnish the Contractor a written notice of its intention to revoke or modify the license, and the Contractor will be allowed 30 days (or such other time as may be authorized by DOE for good cause shown by the Contractor) after the notice to show cause why the license should not be revoked or modified. The Contractor has the right to appeal, in accordance with applicable regulations in 37 CFR Part 404 and agency regulations concerning the licensing of Government owned inventions, any decision concerning the revocation or modification of the license.
- (f) Contractor action to protect the Government's interest.
- (1) The Contractor agrees to execute or to have executed and promptly deliver to DOE all instruments necessary to
 - (i) establish or confirm the rights the Government has throughout the world in those subject inventions to which the Contractor elects to retain title, and

- (ii) convey title to DOE when requested under paragraph (d) of this clause and to enable the government to obtain patent protection throughout the world in that subject invention.
- (2) The Contractor agrees to require, by written agreement, its employees, other than clerical and nontechnical employees, to disclose promptly in writing to personnel identified as responsible for the administration of patent matters and in a format suggested by the Contractor each subject invention made under contract in order that the Contractor can comply with the disclosure provisions of paragraph (c) of this clause, and to execute all papers necessary to file patent applications on subject inventions and to establish the Government's rights in the subject inventions. This disclosure format should require, as a minimum, the information required by subparagraph (c)(1) of this clause. The Contractor shall instruct such employees, through employee agreements or other suitable educational programs, on the importance of reporting inventions in sufficient time to permit the filing of patent applications prior to U.S. or foreign statutory bars. (3) The Contractor will notify DOE of any decision not to continue the prosecution of a patent application, pay maintenance fees, or defend in a reexamination or opposition proceeding on a patent, in any country, not less than 30 days before the expiration of the response period required by the relevant patent office. (4) The Contractor agrees to include, within the specification of any United States patent application and any patent issuing thereon covering a subject invention, the following statement, "This invention was made with Government support under (identify the contract) awarded by the United States Department of Energy. The Government has certain rights in the invention."
- (g) Subcontracts.
- (1) The Contractor will include this clause, suitably modified to identify the parties, in all subcontracts, regardless of tier, for experimental, developmental, or research work to be performed by a small business firm or domestic nonprofit organization. The subcontractor will retain all rights provided for the Contractor in this clause, and the Contractor will not, as part of the consideration for awarding the subcontract, obtain rights in the subcontractor's subject inventions.
 - (2) The contractor shall include in all other subcontracts, regardless of tier, for experimental, developmental, demonstration, or research work the patent rights clause at 952.227-13.
 - (3) In the case of subcontracts, at any tier, DOE, subcontractor, and the Contractor agree that the mutual obligations of the parties created by this clause constitute a contract between the subcontractor and DOE with respect to the matters covered by the clause; provided, however, that nothing in this paragraph is intended to confer any jurisdiction under the Contract Disputes Act in connection with proceedings under paragraph (j) of this clause.
- (h) Reporting on utilization of subject inventions. The Contractor agrees to submit, on request, periodic reports no more frequently than annually on the utilization of a subject invention or on efforts at obtaining such utilization that are being made by the Contractor or its licensees or assignees. Such reports shall include information regarding the status of development, date of first commercial sale or use, gross royalties received, by the Contractor, and such other data and information as DOE may reasonably specify. The Contractor also agrees to provide additional reports as may be requested by DOE in connection with any march-in proceeding undertaken by that agency in accordance with paragraph (j) of this clause. As required by 35 U.S.C. 202(c)(5), DOE agrees it will not disclose such information to persons outside the Government without permission of the Contractor.

- (i) Preference for United States industry. Notwithstanding any other provision of this clause, the Contractor agrees that neither it nor any assignee will grant to any person the exclusive right to use or sell any subject invention in the United States unless such person agrees that any product embodying the subject invention or produced through the use of the subject invention will be manufactured substantially in the United States. However, in individual cases, the requirement for such an agreement may be waived by DOE upon a showing by the Contractor or its assignee that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States or that under the circumstances domestic manufacture is not commercially feasible.
- (j) March-in rights. The Contractor agrees that, with respect to any subject invention in which it has acquired title, DOE has the right in accordance with the procedures in 37 CFR 401.6 and any supplemental regulations of the agency to require the Contractor, an assignee or exclusive licensee of a subject invention to grant a nonexclusive, partially exclusive, or exclusive license in any field of use to a responsible applicant or applicants, upon terms that are reasonable under the circumstances, and, if the Contractor, assignee, or exclusive licensee refuses such a request, DOE has the right to grant such a license itself if DOE determines that—
 - (1) Such action is necessary because the Contractor or assignee has not taken, or is not expected to take within a reasonable time, effective steps to achieve practical application of the subject invention in such field of use;
 - (2) Such action is necessary to alleviate health or safety needs which are not reasonably satisfied by the Contractor, assignee, or their licensees;
 - (3) Such action is necessary to meet requirements for public use specified by Federal regulations and such requirements are not reasonably satisfied by the Contractor, assignee, or licensees; or
 - (4) Such action is necessary because the agreement required by paragraph (i) of this clause has not been obtained or waived or because a licensee of the exclusive right to use or sell any subject invention in the United States is in breach of such agreement.
- (k) Special provisions for contracts with nonprofit organizations. If the Contractor is a nonprofit organization, it agrees that—
 - (1) Rights to a subject invention in the United States may not be assigned without the approval of the Federal agency, except where such assignment is made to an organization which has as one of its primary functions the management of inventions; provided, that such assignee will be subject to the same provisions as the Contractor;
 - (2) The Contractor will share royalties collected on a subject invention with the inventor, including Federal employee co-inventors (when DOE deems it appropriate) when the subject invention is assigned in accordance with 35 U.S.C. 202(e) and 37 CFR 401.10;
 - (3) The balance of any royalties or income earned by the Contractor with respect to subject inventions, after payment of expenses (including payments to inventors) incidental to the administration of subject inventions will be utilized for the support of scientific research or education; and
 - (4) It will make efforts that are reasonable under the circumstances to attract licensees of subject inventions that are small business firms, and that it will give a preference to a small business firm when licensing a subject invention if the Contractor determines that the small business firm has a plan or proposal for marketing the invention which, if

executed, is equally as likely to bring the invention to practical application as any plans or proposals from applicants that are not small business firms; provided, that the Contractor is also satisfied that the small business firm has the capability and resources to carry out its plan or proposal. The decision whether to give a preference in any specific case will be at the discretion of the contractor. However, the Contractor agrees that the Secretary of Commerce may review the Contractor's licensing program and decisions regarding small business applicants, and the Contractor will negotiate changes to its licensing policies, procedures, or practices with the Secretary of Commerce when that Secretary's review discloses that the Contractor could take reasonable steps to more effectively implement the requirements of this subparagraph (k)(4).

(l) Communications.

- (1) The contractor shall direct any notification, disclosure, or request to DOE provided for in this clause to the DOE patent counsel assisting the DOE contracting activity, with a copy of the communication to the Contracting Officer.
- (2) Each exercise of discretion or decision provided for in this clause, except subparagraph (k)(4), is reserved for the DOE Patent Counsel and is not a claim or dispute and is not subject to the Contract Disputes Act of 1978.
- (3) Upon request of the DOE Patent Counsel or the contracting officer, the contractor shall provide any or all of the following:
 - (i) a copy of the patent application, filing date, serial number and title, patent number, and issue date for any subject invention in any country in which the contractor has applied for a patent;
 - (ii) a report, not more often than annually, summarizing all subject inventions which were disclosed to DOE individually during the reporting period specified; or
 - (iii) a report, prior to closeout of the contract, listing all subject inventions or stating that there were none.

(m) Facilities License. In addition to the rights of the parties with respect to inventions or discoveries conceived or first actually reduced to practice in the course of or under this contract, the Contractor agrees to and does hereby grant to the Government an irrevocable, nonexclusive, paid-up license in and to any inventions or discoveries regardless of when conceived or actually reduced to practice or acquired by the Contractor at any time through completion of this contract and which are incorporated or embodied in the construction of the facility or which are utilized in the operation of the facility or which cover articles, materials, or products manufactured at the facility (1) to practice or have practiced by or for the Government at the facility, and (2) to transfer such license with the transfer of that facility. Notwithstanding the acceptance or exercise by the Government of these rights, the Government may contest at any time the enforceability, validity or scope of, title to, any rights or patents herein licensed.

I.66 52.227-16 Additional Data Requirements (JUN 1987)

- (a) In addition to the data (as defined in the clause at 52.227-14, Rights in Data - General clause or other equivalent included in this contract) specified elsewhere in this contract to be delivered, the Contracting Officer may, at any time during contract performance or within a period of 3 years after acceptance of all items to be delivered under this contract, order any data first produced or specifically used in the performance of this contract.
- (b) The Rights in Data - General clause or other equivalent included in this contract is applicable

to all data ordered under this Additional Data Requirements clause. Nothing contained in this clause shall require the Contractor to deliver any data the withholding of which is authorized by the Rights in Data - General or other equivalent clause of this contract, or data which are specifically identified in this contract as not subject to this clause.

- (c) When data are to be delivered under this clause, the Contractor will be compensated for converting the data into the prescribed form, for reproduction, and for delivery.
- (d) The Contracting Officer may release the Contractor from the requirements of this clause for specifically identified data items at any time during the 3-year period set forth in paragraph (a) of this clause.

I.67 52.227-23 Rights to Proposal Data (Technical) (JUN 1987)

Except for data contained on pages (none), it is agreed that as a condition of award of this contract, and notwithstanding the conditions of any notice appearing thereon, the Government shall have unlimited rights (as defined in the "Rights in Data - General" clause contained in this contract) in and to the technical data contained in the proposal dated May 27, 2009, upon which this contract is based.

I.68 970.5227-1 Rights in Data-Facilities (DEC 2000) (Deviation)

(a) Definitions.

- (1) Computer data bases, as used in this clause, means a collection of data in a form capable of, and for the purpose of, being stored in, processed, and operated on by a computer. The term does not include computer software.
- (2) Computer software, as used in this clause, means (i) computer programs which are data comprising a series of instructions, rules, routines, or statements, regardless of the media in which recorded, that allow or cause a computer to perform a specific operation or series of operations and (ii) data comprising source code listings, design details, algorithms, processes, flow charts, formulae, and related material that would enable the computer program to be produced, created, or compiled. The term does not include computer data bases.
- (3) Data, as used in this clause, means recorded information, regardless of form or the media on which it may be recorded. The term includes technical data and computer software. The term "data" does not include data incidental to the administration of this contract, such as financial, administrative, cost and pricing, or management information.
- (4) Limited rights data, as used in this clause, means data, other than computer software, developed at private expense that embody trade secrets or are commercial or financial and confidential or privileged. The Government's rights to use, duplicate, or disclose limited rights data are as set forth in the Limited Rights Notice of subparagraph (e) of this clause.
- (5) Restricted computer software, as used in this clause, means computer software developed at private expense and that is a trade secret; is commercial or financial and is confidential or privileged; or is published copyrighted computer software, including minor modifications of any such computer software. The Government's rights to use, duplicate, or disclose restricted computer software are as set forth in the Restricted Rights Notice of paragraph (f) of this clause.

- (6) Technical data, as used in this clause, means recorded data, regardless of form or characteristic, that are of a scientific or technical nature. Technical data does not include computer software, but does include manuals and instructional materials and technical data formatted as a computer data base.
 - (7) Unlimited rights, as used in this clause, means the right of the Government to use, disclose, reproduce, prepare derivative works, distribute copies to the public, including by electronic means, and perform publicly and display publicly, in any manner, including by electronic means, and for any purpose whatsoever, and to have or permit others to do so.
- (b) Allocation of Rights.
- (1) The Government shall have:
 - (i) Ownership of all technical data and computer software first produced in the performance of this Contract;
 - (ii) Unlimited rights in technical data and computer software specifically used in the performance of this Contract, except as provided herein regarding copyright, limited rights data, or restricted computer software, or except for other data specifically protected by statute for a period of time or, where, approved by DOE, appropriate instances of the DOE Work for Others Program;
 - (iii) The right to inspect technical data and computer software first produced or specifically used in the performance of this Contract at all reasonable times. The Contractor shall make available all necessary facilities to allow DOE personnel to perform such inspection;
 - (iv) The right to have all technical data and computer software first produced or specifically used in the performance of this Contract delivered to the Government or otherwise disposed of by the Contractor, either as the contracting officer may from time to time direct during the progress of the work or in any event as the contracting officer shall direct upon completion or termination of this Contract. The Contractor agrees to leave a copy of such data at the facility or plant to which such data relate, and to make available for access or to deliver to the Government such data upon request by the contracting officer. If such data are limited rights data or restricted computer software, the rights of the Government in such data shall be governed solely by the provisions of paragraph (e) of this clause ("Rights in Limited Rights Data") or paragraph (f) of this clause ("Rights in Restricted Computer Software"); and
 - (v) The right to remove, cancel, correct, or ignore any markings not authorized by the terms of this Contract on any data furnished hereunder if, in response to a written inquiry by DOE concerning the propriety of the markings, the Contractor fails to respond thereto within 60 days or fails to substantiate the propriety of the markings. In either case DOE will notify the Contractor of the action taken.
 - (2) The Contractor shall have:
 - (i) The right to withhold limited rights data and restricted computer software unless otherwise provided in accordance with the provisions of this clause; and
 - (ii) The right to use for its private purposes, subject to patent, security or other provisions of this Contract, data it first produces in the performance of this Contract, except for data in DOE's Uranium Enrichment Technology, including diffusion, centrifuge, and atomic vapor laser isotope separation, provided the data requirements of this Contract have been met as of the date of the private use of such data.

- (3) The Contractor agrees that for limited rights data or restricted computer software or other technical, business or financial data in the form of recorded information which it receives from, or is given access to by, DOE or a third party, including a DOE Contractor or subcontractor, and for technical data or computer software it first produces under this Contract which is authorized to be marked by DOE, the Contractor shall treat such data in accordance with any restrictive legend contained thereon.
- (c) Copyrighted Material.
- (1) The Contractor shall not, without prior written authorization of the Patent Counsel, assert copyright in any technical data or computer software first produced in the performance of this contract. To the extent such authorization is granted, the Government reserves for itself and others acting on its behalf, a nonexclusive, paid-up, irrevocable, world-wide license for Governmental purposes to publish, distribute, translate, duplicate, exhibit, and perform any such data copyrighted by the Contractor.
 - (2) The Contractor agrees not to include in the technical data or computer software delivered under the contract any material copyrighted by the Contractor and not to knowingly include any material copyrighted by others without first granting or obtaining at no cost a license therein for the benefit of the Government of the same scope as set forth in paragraph (c)(1) of this clause. If the Contractor believes that such copyrighted material for which the license cannot be obtained must be included in the technical data or computer software to be delivered, rather than merely incorporated therein by reference, the Contractor shall obtain the written authorization of the contracting officer to include such material in the technical data or computer software prior to its delivery.
- (d) Subcontracting.
- (1) Unless otherwise directed by the contracting officer, the Contractor agrees to use in subcontracts in which technical data or computer software is expected to be produced or in subcontracts for supplies that contain a requirement for production or delivery of data in accordance with the policy and procedures of 48 CFR Subpart 27.4 as supplemented by 48 CFR 927.401 through 927.409, the clause entitled, "Rights in Data-General" at 48 CFR 52.227-14 modified in accordance with 927.409(a) and including Alternate V. Alternates II through IV of that clause may be included as appropriate with the prior approval of DOE Patent Counsel, and the Contractor shall not acquire rights in a subcontractor's limited rights data or restricted computer software, except through the use of Alternates II or III, respectively, without the prior approval of DOE Patent Counsel. The clause at 48 CFR 52.227-16, Additional Data Requirements, shall be included in subcontracts in accordance with DEAR 927.409(h). The contractor shall use instead the Rights in Data-Facilities clause at 48 CFR 970.5227-1 in subcontracts, including subcontracts for related support services, involving the design or operation of any plants or facilities or specially designed equipment for such plants or facilities that are managed or operated under its contract with DOE.
 - (2) It is the responsibility of the Contractor to obtain from its subcontractors technical data and computer software and rights therein, on behalf of the Government, necessary to fulfill the Contractor's obligations to the Government with respect to such data. In the event of refusal by a subcontractor to accept a clause affording the Government such rights, the Contractor shall:

- (i) Promptly submit written notice to the contracting officer setting forth reasons or the subcontractor's refusal and other pertinent information which may expedite disposition of the matter, and
 - (ii) Not proceed with the subcontract without the written authorization of the contracting officer.
- (3) Neither the Contractor nor higher-tier subcontractors shall use their power to award subcontracts as economic leverage to acquire rights in a subcontractor's limited rights data or restricted computer software for their private use.
- (e) Rights in Limited Rights Data.

Except as may be otherwise specified in this Contract as data which are not subject to this paragraph, the Contractor agrees to and does hereby grant to the Government an irrevocable, nonexclusive, paid-up license by or for the Government, in any limited rights data of the Contractor specifically used in the performance of this Contract, provided, however, that to the extent that any limited rights data when furnished or delivered is specifically identified by the Contractor at the time of initial delivery to the Government or a representative of the Government, such data shall not be used within or outside the Government except as provided in the "Limited Rights Notice" set forth. All such limited rights data shall be marked with the following "Limited Rights Notice":

Limited Rights Notice

These data contain "limited rights data," furnished under Contract No. _____ with the United States Department of Energy which may be duplicated and used by the Government with the express limitations that the "limited rights data" may not be disclosed outside the Government or be used for purposes of manufacture without prior permission of the Contractor, except that further disclosure or use may be made solely for the following purposes:

- (e) Use (except for manufacture) by support services contractors within the scope of their contracts;
- (f) This "limited rights data" may be disclosed for evaluation purposes under the restriction that the "limited rights data" be retained in confidence and not be further disclosed;
- (g) This "limited rights data" may be disclosed to other contractors participating in the Government's program of which this Contract is a part for information or use (except for manufacture) in connection with the work performed under their contracts including use by DOE or its follow-on contractors as necessary for continued performance of the work or operation of the facility and under the restriction that the "limited rights data" be retained in confidence and not be further disclosed;
- (h) This "limited rights data" may be used by the Government or others on its behalf for emergency repair or overhaul work under the restriction that the "limited rights data" be retained in confidence and not be further disclosed; and
- (i) Release to a foreign government, or instrumentality thereof, as the interests of the United States Government may require, for information or evaluation, or for emergency repair or overhaul work by such government. This Notice shall be marked on any reproduction of this data in whole or in part.

- (j) Rights in Restricted Computer Software.
- (1) Except as may be otherwise specified in this Contract as data which are not subject to this paragraph, the Contractor agrees to and does hereby grant to the Government an irrevocable, nonexclusive, paid-up, license by or for the Government, in any restricted computer software of the Contractor specifically used in the performance of this Contract, provided, however, that to the extent that any restricted computer software when furnished or delivered is specifically identified by the Contractor at the time of initial delivery to the Government or a representative of the Government, such data shall not be used within or outside the Government except as provided in the "Restricted Rights Notice" set forth below. All such restricted computer software shall be marked with the following "Restricted Rights Notice":

Restricted Rights Notice-Long Form

- (k) This computer software is submitted with restricted rights under Department of Energy Contract No. _____. It may not be used, reproduced, or disclosed by the Government except as provided in paragraph (b) of this notice.
- (l) This computer software may be:
- (1) Used or copied for use in or with the computer or computers for which it was acquired, including use at any Government installation to which such computer or computers may be transferred;
- (2) Used, copied for use, in a backup or replacement computer if any computer for which it was acquired is inoperative or is replaced;
- (3) Reproduced for safekeeping (archives) or backup purposes;
- (4) Modified, adapted, or combined with other computer software, provided that only the portions of the derivative software consisting of the restricted computer software are to be made subject to the same restricted rights; and
- (5) Disclosed to and reproduced for use by contractors under a service contract (of the type defined in 48 CFR 37.101) in accordance with subparagraphs (b)(1) through (4) of this Notice, provided the Government makes such disclosure or reproduction subject to these restricted rights.
- (m) Notwithstanding the foregoing, if this computer software has been published under copyright, it is licensed to the Government, without disclosure prohibitions, with the rights set forth in the restricted rights notice above.
- (n) This Notice shall be marked on any reproduction of this computer software, in whole or in part.
- (1) Where it is impractical to include the Restricted Rights Notice on restricted computer software, the following short-form Notice may be used.

Restricted Rights Notice-Short Form

Use, reproduction, or disclosure is subject to restrictions set forth in the Long Form Notice of DOE Contract No. _____ with (name of Contractor).

- (2) If the software is embedded, or if it is commercially impractical to mark it with human readable text, then the symbol R and the clause date (mo/yr), in brackets or a box, a [R-mo/yr], may be used. This will be read to mean restricted computer software, subject to the rights of the Government as described in the Long Form Notice, in effect as of the date indicated next to the symbol. The symbol shall not be used to mark human readable material. In the event this Contract contains any variation to the rights in the Long Form Notice, then the contract number must also be cited.
- (3) If restricted computer software is delivered with the copyright notice of 17 U.S.C. 401, the software will be presumed to be published copyrighted computer software licensed to the Government without disclosure prohibitions and with unlimited rights, unless the Contractor includes the following statement with such copyright notice "Unpublished-rights reserved under the Copyright Laws of the United States."
- (o) 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.

I.69 52.228-7 Insurance – Liability to Third Persons (MAR 1996)

- (a) (1) Except as provided in subparagraph (a)(2) of this clause, the Contractor shall provide and maintain workers' compensation, employer's liability, comprehensive general liability (bodily injury), comprehensive automobile liability (bodily injury and property damage) insurance, and such other insurance as the Contracting Officer may require under this contract.
- (2) The Contractor may, with the approval of the Contracting Officer, maintain a self-insurance program; provided that, with respect to workers' compensation, the Contractor is qualified pursuant to statutory authority.
- (3) All insurance required by this paragraph shall be in a form and amount and for those periods as the Contracting Officer may require or approve and with insurers approved by the Contracting Officer.
- (b) The Contractor agrees to submit for the Contracting Officer's approval, to the extent and in the manner required by the Contracting Officer, any other insurance that is maintained by the Contractor in connection with the performance of this contract and for which the Contractor seeks reimbursement.
- (c) The Contractor shall be reimbursed –
 - (1) For that portion –
 - (i) Of the reasonable cost of insurance allocable to this contract; and
 - (ii) Required or approved under this clause; and

- (2) For certain liabilities (and expenses incidental to such liabilities) to third persons not compensated by insurance or otherwise without regard to and as an exception to the limitation of cost or the limitation of funds clause of this contract. These liabilities must arise out of the performance of this contract, whether or not caused by the negligence of the Contractor or of the Contractor's agents, servants, or employees, and must be represented by final judgments or settlements approved in writing by the Government. These liabilities are for –
 - (i) Loss of or damage to property (other than property owned, occupied, or used by the Contractor, rented to the Contractor, or in the care, custody, or control of the Contractor); or
 - (ii) Death or bodily injury.
- (d) The Government's liability under paragraph (c) of this clause is subject to the availability of appropriated funds at the time a contingency occurs. Nothing in this contract shall be construed as implying that the Congress will, at a later date, appropriate funds sufficient to meet deficiencies.
- (e) The Contractor shall not be reimbursed for liabilities (and expenses incidental to such liabilities) –
 - (1) For which the Contractor is otherwise responsible under the express terms of any clause specified in the Schedule or elsewhere in the contract;
 - (2) For which the Contractor has failed to insure or to maintain insurance as required by the Contracting Officer; or
 - (3) That result from willful misconduct or lack of good faith on the part of any of the Contractor's directors, officers, managers, superintendents, or other representatives who have supervision or direction of —
 - (i) All or substantially all of the Contractor's business;
 - (ii) All or substantially all of the Contractor's operations at any one plant or separate location in which this contract is being performed; or
 - (iii) A separate and complete major industrial operation in connection with the performance of this contract.
- (f) The provisions of paragraph (e) of this clause shall not restrict the right of the Contractor to be reimbursed for the cost of insurance maintained by the Contractor in connection with the performance of this contract, other than insurance required in accordance with this clause; provided, that such cost is allowable under the Allowable Cost and Payment clause of this contract.
- (g) If any suit or action is filed or any claim is made against the Contractor, the cost and expense of which may be reimbursable to the Contractor under this contract, and the risk of which is then uninsured or is insured for less than the amount claimed, the Contractor shall —
 - (1) Immediately notify the Contracting Officer and promptly furnish copies of all pertinent papers received;
 - (2) Authorize Government representatives to collaborate with counsel for the insurance carrier in settling or defending the claim when the amount of the liability claimed exceeds the amount of coverage; and

- (3) Authorize Government representatives to settle or defend the claim and to represent the Contractor in or to take charge of any litigation, if required by the Government, when the liability is not insured or covered by bond. The Contractor may, at its own expense, be associated with the Government representatives in any such claim or litigation.

I.70 52.232-17 Interest (JUN 1996)

- (a) Except as otherwise provided in this contract under a Price Reduction for Defective Cost or Pricing Data clause or Cost Accounting Standards clause, all amounts that become payable by the Contractor to the Government under this contract (net of any applicable tax credit under the Internal Revenue Code (26 U.S.C. 1481)) shall bear simple interest from the date due until paid unless paid within 30 days of becoming due. The interest rate shall be the interest rate established by the Secretary of the Treasury as provided in Section 12 of the Contract Disputes Act of 1978 (Public Law 95-563), which is applicable to the period in which the amount becomes due, as provided in paragraph (b) of this clause, and then at the rate applicable for each six-month period as fixed by the Secretary until the amount is paid.
- (b) Amounts shall be due at the earliest of the following dates:
 - (1) The date fixed under this contract.
 - (2) The date of the first written demand for payment consistent with this contract, including any demand resulting from a default termination.
 - (3) The date the Government transmits to the Contractor a proposed supplemental agreement to confirm completed negotiations establishing the amount of debt.
 - (4) If this contract provides for revision of prices, the date of written notice to the Contractor stating the amount of refund payable in connection with a pricing proposal or a negotiated pricing agreement not confirmed by contract modification.
- (c) The interest charge made under this clause may be reduced under the procedures prescribed in 32.614-2 of the Federal Acquisition Regulation in effect on the date of this contract.

I.71 52.232-22 Limitation of Funds (APR 1984)

- (a) The parties estimate that performance of this contract will not cost the Government more than (1) the estimated cost specified in the Schedule or, (2) if this is a cost-sharing contract, the Government's share of the estimated cost specified in the Schedule. The Contractor agrees to use its best efforts to perform the work specified in the Schedule and all obligations under this contract within the estimated cost, which, if this is a cost-sharing contract, includes both the Government's and the Contractor's share of the cost.
- (b) The Schedule specifies the amount presently available for payment by the Government and allotted to this contract, the items covered, the Government's share of the cost if this is a cost-sharing contract, and the period of performance it is estimated the allotted amount will cover. The parties contemplate that the Government will allot additional funds incrementally to the contract up to the full estimated cost to the Government specified in the Schedule, exclusive of any fee. The Contractor agrees to perform, or have performed, work on the contract up to the point at which the total amount paid and payable by the Government under

- the contract approximates but does not exceed the total amount actually allotted by the Government to the contract.
- (c) The Contractor shall notify the Contracting Officer in writing whenever it has reason to believe that the costs it expects to incur under this contract in the next 60 days, when added to all costs previously incurred, will exceed 75 percent of (1) the total amount so far allotted to the contract by the Government or, (2) if this is a cost-sharing contract, the amount then allotted to the contract by the Government plus the Contractor's corresponding share. The notice shall state the estimated amount of additional funds required to continue performance for the period specified in the Schedule.
 - (d) Sixty days before the end of the period specified in the Schedule, the Contractor shall notify the Contracting Officer in writing of the estimated amount of additional funds, if any, required to continue timely performance under the contract or for any further period specified in the Schedule or otherwise agreed upon, and when the funds will be required.
 - (e) If, after notification, additional funds are not allotted by the end of the period specified in the Schedule or another agreed-upon date, upon the Contractor's written request the Contracting Officer will terminate this contract on that date in accordance with the provisions of the Termination clause of this contract. If the Contractor estimates that the funds available will allow it to continue to discharge its obligations beyond that date, it may specify a later date in its request, and the Contracting Officer may terminate this contract on that later date.
 - (f) Except as required by other provisions of this contract, specifically citing and stated to be an exception to this clause –
 - (1) The Government is not obligated to reimburse the Contractor for costs incurred in excess of the total amount allotted by the Government to this contract; and
 - (2) The Contractor is not obligated to continue performance under this contract (including actions under the Termination clause of this contract) or otherwise incur costs in excess of –
 - (i) The amount then allotted to the contract by the Government or;
 - (ii) If this is a cost-sharing contract, the amount then allotted by the Government to the contract plus the Contractor's corresponding share, until the Contracting Officer notifies the Contractor in writing that the amount allotted by the Government has been increased and specifies an increased amount, which shall then constitute the total amount allotted by the Government to this contract.
 - (g) The estimated cost shall be increased to the extent that (1) the amount allotted by the Government or, (2) if this is a cost-sharing contract, the amount then allotted by the Government to the contract plus the Contractor's corresponding share, exceeds the estimated cost specified in the Schedule. If this is a cost-sharing contract, the increase shall be allocated in accordance with the formula specified in the Schedule.
 - (h) No notice, communication, or representation in any form other than that specified in subparagraph (f)(2) above, or from any person other than the Contracting Officer, shall affect the amount allotted by the Government to this contract. In the absence of the specified notice, the Government is not obligated to reimburse the Contractor for any costs in excess of the total amount allotted by the Government to this contract, whether incurred during the course of the contract or as a result of termination.

- (i) When and to the extent that the amount allotted by the Government to the contract is increased, any costs the Contractor incurs before the increase that are in excess of -
 - (1) The amount previously allotted by the Government or;
 - (2) If this is a cost-sharing contract, the amount previously allotted by the Government to the contract plus the Contractor's corresponding share, shall be allowable to the same extent as if incurred afterward, unless the Contracting Officer issues a termination or other notice and directs that the increase is solely to cover termination or other specified expenses.
- (j) Change orders shall not be considered an authorization to exceed the amount allotted by the Government specified in the Schedule, unless they contain a statement increasing the amount allotted.
- (k) Nothing in this clause shall affect the right of the Government to terminate this contract. If this contract is terminated, the Government and the Contractor shall negotiate an equitable distribution of all property produced or purchased under the contract, based upon the share of costs incurred by each.
- (l) If the Government does not allot sufficient funds to allow completion of the work, the Contractor is entitled to a percentage of the fee specified in the Schedule equaling the percentage of completion of the work contemplated by this contract.

I.72 52.232-23 Assignment of Claims (JAN 1986)

- (a) The Contractor, under the Assignment of Claims Act, as amended, 31 U.S.C. 3727, 41 U.S.C. 15 (hereafter referred to as "the Act"), may assign its rights to be paid amounts due or to become due as a result of the performance of this contract to a bank, trust company, or other financing institution, including any Federal lending agency. The assignee under such an assignment may thereafter further assign or reassign its right under the original assignment to any type of financing institution described in the preceding sentence.
- (b) Any assignment or reassignment authorized under the Act and this clause shall cover all unpaid amounts payable under this contract, and shall not be made to more than one party, except that an assignment or reassignment may be made to one party as agent or trustee for two or more parties participating in the financing of this contract.
- (c) The Contractor shall not furnish or disclose to any assignee under this contract any classified document (including this contract) or information related to work under this contract until the Contracting Officer authorizes such action in writing.

I.73 52.232-25 Prompt Payment (OCT 2003) - Alternate I (FEB 2002)

Notwithstanding any other payment clause in this contract, the Government will make invoice payments under the terms and conditions specified in this clause. The Government considers payment as being made on the day a check is dated or the date of an electronic funds transfer (EFT). Definitions of pertinent terms are set forth in sections 2.101, 32.001, and 32.902 of the Federal Acquisition Regulation. All days referred to in this clause are calendar days, unless otherwise specified. (However, see paragraph (a)(4) of this clause concerning payments due on Saturdays, Sundays, and legal holidays.)

(a) Invoice payments—

- (1) Due date.
 - (i) Except as indicated in paragraphs (a)(2) and (c) of this clause, the due date for making invoice payments by the designated payment office is the later of the following two events:
 - (A) The 30th day after the designated billing office receives a proper invoice from the Contractor (except as provided in paragraph (a)(1)(ii) of this clause).
 - (B) The 30th day after Government acceptance of supplies delivered or services performed. For a final invoice, when the payment amount is subject to contract settlement actions, acceptance is deemed to occur on the effective date of the contract settlement.
 - (ii) If the designated billing office fails to annotate the invoice with the actual date of receipt at the time of receipt, the invoice payment due date is the 30th day after the date of the Contractor's invoice, provided the designated billing office receives a proper invoice and there is no disagreement over quantity, quality, or Contractor compliance with contract requirements.
- (2) Certain food products and other payments.
 - (i) Due dates on Contractor invoices for meat, meat food products, or fish; perishable agricultural commodities; and dairy products, edible fats or oils, and food products prepared from edible fats or oils are—
 - (A) For meat or meat food products, as defined in section 2(a)(3) of the Packers and Stockyard Act of 1921 (7 U.S.C. 182(3)), and as further defined in Pub. L. 98-181, including any edible fresh or frozen poultry meat, any perishable poultry meat food product, fresh eggs, and any perishable egg product, as close as possible to, but not later than, the 7th day after product delivery.
 - (B) For fresh or frozen fish, as defined in section 204(3) of the Fish and Seafood Promotion Act of 1986 (16 U.S.C. 4003(3)), as close as possible to, but not later than, the 7th day after product delivery.
 - (C) For perishable agricultural commodities, as defined in section 1(4) of the Perishable Agricultural Commodities Act of 1930 (7 U.S.C. 499a(4)), as close as possible to, but not later than, the 10th day after product delivery, unless another date is specified in the contract.
 - (D) For dairy products, as defined in section 111(e) of the Dairy Production Stabilization Act of 1983 (7 U.S.C. 4502(e)), edible fats or oils, and food products prepared from edible fats or oils, as close as possible to, but not later than, the 10th day after the date on which a proper invoice has been received. Liquid milk, cheese, certain processed cheese products, butter, yogurt, ice cream, mayonnaise, salad dressings, and other similar products, fall within this classification. Nothing in the Act limits this classification to refrigerated products. When questions arise regarding the proper classification of a specific product, prevailing industry practices will be followed in specifying a contract payment due date. The burden of proof that a classification of a specific product is, in fact, prevailing industry practice is upon the Contractor making the representation.
 - (ii) If the contract does not require submission of an invoice for payment (e.g., periodic lease payments), the due date will be as specified in the contract.
- (3) Contractor's invoice. The Contractor shall prepare and submit invoices to the designated billing office specified in the contract. A proper invoice must include the

items listed in paragraphs (a)(3)(i) through (a)(3)(x) of this clause. If the invoice does not comply with these requirements, the designated billing office will return it within 7 days after receipt (3 days for meat, meat food products, or fish; 5 days for perishable agricultural commodities, dairy products, edible fats or oils, and food products prepared from edible fats or oils), with the reasons why it is not a proper invoice. The Government will take into account untimely notification when computing any interest penalty owed the Contractor.

- (i) Name and address of the Contractor.
 - (ii) Invoice date and invoice number. (The Contractor should date invoices as close as possible to the date of the mailing or transmission.)
 - (iii) Contract number or other authorization for supplies delivered or services performed (including order number and contract line item number).
 - (iv) Description, quantity, unit of measure, unit price, and extended price of supplies delivered or services performed.
 - (v) Shipping and payment terms (e.g., shipment number and date of shipment, discount for prompt payment terms). Bill of lading number and weight of shipment will be shown for shipments on Government bills of lading.
 - (vi) Name and address of Contractor official to whom payment is to be sent (must be the same as that in the contract or in a proper notice of assignment).
 - (vii) Name (where practicable), title, phone number, and mailing address of person to notify in the event of a defective invoice.
 - (viii) Taxpayer Identification Number (TIN). The Contractor shall include its TIN on the invoice only if required elsewhere in this contract.
 - (ix) Electronic funds transfer (EFT) banking information.
 - (A) The Contractor shall include EFT banking information on the invoice only if required elsewhere in this contract.
 - (B) If EFT banking information is not required to be on the invoice, in order for the invoice to be a proper invoice, the Contractor shall have submitted correct EFT banking information in accordance with the applicable solicitation provision (e.g., 52.232-38, Submission of Electronic Funds Transfer Information with Offer), contract clause (e.g., 52.232-33, Payment by Electronic Funds Transfer—Central Contractor Registration, or 52.232-34, Payment by Electronic Funds Transfer—Other Than Central Contractor Registration), or applicable agency procedures.
 - (C) EFT banking information is not required if the Government waived the requirement to pay by EFT.
 - (x) Any other information or documentation required by the contract (e.g., evidence of shipment).
- (4) Interest penalty. The designated payment office will pay an interest penalty automatically, without request from the Contractor, if payment is not made by the due date and the conditions listed in paragraphs (a)(4)(i) through (a)(4)(iii) of this clause are met, if applicable. However, when the due date falls on a Saturday, Sunday, or legal holiday, the designated payment office may make payment on the following working day without incurring a late payment interest penalty.
- (i) The designated billing office received a proper invoice.
 - (ii) The Government processed a receiving report or other Government documentation authorizing payment, and there was no disagreement over quantity, quality, or Contractor compliance with any contract term or condition.
 - (iii) In the case of a final invoice for any balance of funds due the Contractor for supplies delivered or services performed, the amount was not subject to further contract settlement actions between the Government and the Contractor.

- (5) Computing penalty amount. The Government will compute the interest penalty in accordance with the Office of Management and Budget prompt payment regulations at 5 CFR Part 1315.
- (i) For the sole purpose of computing an interest penalty that might be due the Contractor, Government acceptance is deemed to occur constructively on the 7th day (unless otherwise specified in this contract) after the Contractor delivers the supplies or performs the services in accordance with the terms and conditions of the contract, unless there is a disagreement over quantity, quality, or Contractor compliance with a contract provision. If actual acceptance occurs within the constructive acceptance period, the Government will base the determination of an interest penalty on the actual date of acceptance. The constructive acceptance requirement does not, however, compel Government officials to accept supplies or services, perform contract administration functions, or make payment prior to fulfilling their responsibilities.
 - (ii) The prompt payment regulations at 5 CFR 1315.10(c) do not require the Government to pay interest penalties if payment delays are due to disagreement between the Government and the Contractor over the payment amount or other issues involving contract compliance, or on amounts temporarily withheld or retained in accordance with the terms of the contract. The Government and the Contractor shall resolve claims involving disputes and any interest that may be payable in accordance with the clause at FAR 52.233-1, Disputes.
- (6) Discounts for prompt payment. The designated payment office will pay an interest penalty automatically, without request from the Contractor, if the Government takes a discount for prompt payment improperly. The Government will calculate the interest penalty in accordance with the prompt payment regulations at 5 CFR Part 1315.
- (7) Additional interest penalty.
- (i) The designated payment office will pay a penalty amount, calculated in accordance with the prompt payment regulations at 5 CFR Part 1315 in addition to the interest penalty amount only if—
 - (A) The Government owes an interest penalty of \$1 or more;
 - (B) The designated payment office does not pay the interest penalty within 10 days after the date the invoice amount is paid; and
 - (C) The Contractor makes a written demand to the designated payment office for additional penalty payment, in accordance with paragraph (a)(7)(ii) of this clause, postmarked not later than 40 days after the invoice amount is paid.
 - (ii) (A) The Contractor shall support written demands for additional penalty payments with the following data. The Government will not request any additional data. The Contractor shall—
 - (1) Specifically assert that late payment interest is due under a specific invoice, and request payment of all overdue late payment interest penalty and such additional penalty as may be required;
 - (2) Attach a copy of the invoice on which the unpaid late payment interest is due; and
 - (3) State that payment of the principal has been received, including the date of receipt.
 - (B) If there is no postmark or the postmark is illegible—
 - (1) The designated payment office that receives the demand will annotate it with the date of receipt, provided the demand is received on or before the 40th day after payment was made; or

- (2) If the designated payment office fails to make the required annotation, the Government will determine the demand's validity based on the date the Contractor has placed on the demand, provided such date is no later than the 40th day after payment was made.
 - (iii) The additional penalty does not apply to payments regulated by other Government regulations (e.g., payments under utility contracts subject to tariffs and regulation).
- (b) Contract financing payment. If this contract provides for contract financing, the Government will make contract financing payments in accordance with the applicable contract financing clause.
- (c) Fast payment procedure due dates. If this contract contains the clause at 52.213-1, Fast Payment Procedure, payments will be made within 15 days after the date of receipt of the invoice.
- (d) Overpayments. If the Contractor becomes aware of a duplicate contract financing or invoice payment or that the Government has otherwise overpaid on a contract financing or invoice payment, the Contractor shall immediately notify the Contracting Officer and request instructions for disposition of the overpayment.
- (e) Invoices for interim payments. For interim payments under this cost-reimbursement contract for services—
 - (1) Paragraphs (a)(2), (a)(3), (a)(4)(ii), (a)(4)(iii), and (a)(5)(i) do not apply;
 - (2) For purposes of computing late payment interest penalties that may apply, the due date for payment is the 30th day after the designated billing office receives a proper invoice; and
 - (3) The contractor shall submit invoices for interim payments in accordance with paragraph (a) of FAR 52.216-7, Allowable Cost and Payment. If the invoice does not comply with contract requirements, it will be returned within 7 days after the date the designated billing office received the invoice.

I.74 52.232-33 Payment by Electronic Funds Transfer - Central Contractor Registration (OCT 2003)

- (a) Method of payment.
 - (1) All payments by the Government under this contract shall be made by electronic funds transfer (EFT), except as provided in paragraph (a)(2) of this clause. As used in this clause, the term "EFT" refers to the funds transfer and may also include the payment information transfer.
 - (2) In the event the Government is unable to release one or more payments by EFT, the Contractor agrees to either -
 - (i) Accept payment by check or some other mutually agreeable method of payment; or
 - (ii) Request the Government to extend the payment due date until such time as the Government can make payment by EFT (but see paragraph (d) of this clause).

(b) Contractor's EFT information.

The Government shall make payment to the Contractor using the EFT information contained in the Central Contractor Registration (CCR) database. In the event that the EFT information changes, the Contractor shall be responsible for providing the updated information to the CCR database.

(c) Mechanisms for EFT payment.

The Government may make payment by EFT through either the Automated Clearing House (ACH) network, subject to the rules of the National Automated Clearing House Association, or the Fedwire Transfer System. The rules governing Federal payments through the ACH are contained in 31 CFR part 210.

(d) Suspension of payment.

If the Contractor's EFT information in the CCR database is incorrect, then the Government need not make payment to the Contractor under this contract until correct EFT information is entered into the CCR database; and any invoice or contract financing request shall be deemed not to be a proper invoice for the purpose of prompt payment under this contract. The prompt payment terms of the contract regarding notice of an improper invoice and delays in accrual of interest penalties apply.

(e) Liability for uncompleted or erroneous transfers.

- (1) If an uncompleted or erroneous transfer occurs because the Government used the Contractor's EFT information incorrectly, the Government remains responsible for - (i) Making a correct payment; (ii) Paying any prompt payment penalty due; and (iii) Recovering any erroneously direct funds.
- (2) If an uncompleted or erroneous transfer occurs because the Contractor's EFT information was incorrect, or was revised within 30 days of Government release of the EFT payment transaction instruction to the Federal Reserve System, and - (i) If the funds are no longer under the control of the payment office, the Government is deemed to have made payment and the Contractor is responsible for recovery of any erroneously directed funds; or (ii) If the funds remain under the control of the payment office, the Government shall not make payment, and the provisions of paragraph (d) of this clause shall apply.

(f) EFT and prompt payment.

A payment shall be deemed to have been made in a timely manner in accordance with the prompt payment terms of this contract if, in the EFT payment transaction instruction released to the Federal Reserve System, the date specified for settlement of the payment is on or before the prompt payment due date, provided the specified payment date is a valid date under the rules of the Federal Reserve System.

(g) EFT and assignment of claims.

If the Contractor assigns the proceeds of this contract as provided for in the assignment of claims terms of this contract, the Contractor shall require as a condition of any such

assignment, that the assignee shall register separately in the CCR database and shall be paid by EFT in accordance with the terms of this clause. Notwithstanding any other requirement of this contract, payment to an ultimate recipient other than the Contractor, or a financial institution properly recognized under an assignment of claims pursuant to Subpart 32.8, is not permitted. In all respects, the requirements of the clause shall apply to the assignee as if it were the Contractor. EFT information that shows the ultimate recipient of the transfer to be other than the Contractor, in the absence of a proper assignment of claims acceptable to the Government, is incorrect EFT information within the meaning of paragraph (d) of this clause.

- (h) Liability for change of EFT information by financial agent.

The Government is not liable for errors resulting from changes to EFT information made by the Contractor's financial agent.

- (i) Payment information.

The payment or disbursing office shall forward to the Contractor available payment information that is suitable for transmission as of the date of release of the EFT instruction to the Federal Reserve System. The Government may request the Contractor to designate a desired format and method(s) for delivery of payment information from a list of formats and methods the payment office is capable of executing. However, the Government does not guarantee that any particular format or method of delivery is available at any particular payment office and retains the latitude to use the format and delivery method most convenient to the Government. If the Government makes payment by check in accordance with paragraph (a) of this clause, the Government shall mail the payment information to the remittance address contained in the CCR database.

I.75 52.233-1 Disputes (JUL 2002) – Alternate I (DEC 1991)

- (a) This contract is subject to the Contract Disputes Act of 1978, as amended (41 U.S.C. 601-613).
- (b) Except as provided in the Act, all disputes arising under or relating to this contract shall be resolved under this clause.
- (c) Claim, as used in this clause, means a written demand or written assertion by one of the contracting parties seeking, as a matter of right, the payment of money in a sum certain, the adjustment or interpretation of contract terms, or other relief arising under or relating to this contract. However, a written demand or written assertion by the Contractor seeking the payment of money exceeding \$100,000 is not a claim under the Act until certified. A voucher, invoice, or other routine request for payment that is not in dispute when submitted is not a claim under the Act. The submission may be converted to a claim under the Act, by complying with the submission and certification requirements of this clause, if it is disputed either as to liability or amount or is not acted upon in a reasonable time.
- (d) (1) A claim by the Contractor shall be made in writing and, unless otherwise stated in this contract, submitted within 6 years after accrual of the claim to the Contracting Officer for a written decision. A claim by the Government against the Contractor shall be subject to a written decision by the Contracting Officer.
- (2) (i) The Contractor shall provide the certification specified in paragraph (d)(2)(iii) of this clause when submitting any claim exceeding \$100,000.

- (ii) The certification requirement does not apply to issues in controversy that have not been submitted as all or part of a claim.
 - (iii) The certification shall state as follows: "I certify that the claim is made in good faith; that the supporting data are accurate and complete to the best of my knowledge and belief; that the amount requested accurately reflects the contract adjustment for which the Contractor believes the Government is liable; and that I am duly authorized to certify the claim on behalf of the Contractor."
- (3) The certification may be executed by any person duly authorized to bind the Contractor with respect to the claim.
- (e) For Contractor claims of \$100,000 or less, the Contracting Officer must, if requested in writing by the Contractor, render a decision within 60 days of the request. For Contractor-certified claims over \$100,000, the Contracting Officer must, within 60 days, decide the claim or notify the Contractor of the date by which the decision will be made.
 - (f) The Contracting Officer's decision shall be final unless the Contractor appeals or files a suit as provided in the Act.
 - (g) If the claim by the Contractor is submitted to the Contracting Officer or a claim by the Government is presented to the Contractor, the parties, by mutual consent, may agree to use alternative dispute resolution (ADR). If the Contractor refuses an offer for ADR, the Contractor shall inform the Contracting Officer, in writing, of the Contractor's specific reasons for rejecting the offer.
 - (h) The Government shall pay interest on the amount found due and unpaid from (1) the date that the Contracting Officer receives the claim (certified, if required); or (2) the date that payment otherwise would be due, if that date is later, until the date of payment. With regard to claims having defective certifications, as defined in FAR 33.201, interest shall be paid from the date that the Contracting Officer initially receives the claim. Simple interest on claims shall be paid at the rate, fixed by the Secretary of the Treasury as provided in the Act, which is applicable to the period during which the Contracting Officer receives the claim and then at the rate applicable for each 6-month period as fixed by the Treasury Secretary during the pendency of the claim.
 - (i) The Contractor shall proceed diligently with performance of this contract, pending final resolution of any request for relief, claim, appeal, or action arising under or relating to the contract, and comply with any decision of the Contracting Officer.

I.76 52.233-3 Protest after Award (AUG 1996) – Alternate I (JUN 1985)

- (a) Upon receipt of a notice of protest (as defined in FAR 33.101) or a determination that a protest is likely (see FAR 33.102(d)), the Contracting Officer may, by written order to the Contractor, direct the Contractor to stop performance of the work called for by this contract. The order shall be specifically identified as a stop-work order issued under this clause. Upon receipt of the order, the Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the order during the period of work stoppage. Upon receipt of the final decision in the protest, the Contracting Officer shall either -
 - (1) Cancel the stop-work order; or

- (2) Terminate the work covered by the order as provided in the Termination clause of this contract.
- (b) If a stop-work order issued under this clause is canceled either before or after a final decision in the protest, the Contractor shall resume work. The Contracting Officer shall make an equitable adjustment in the delivery schedule, the estimated cost, the fee, or a combination thereof, and in any other terms of the contract that may be affected and the contract shall be modified, in writing, accordingly, if -
 - (1) The stop-work order results in an increase in the time required for, or in the Contractor's cost properly allocable to, the performance of any part of this contract; and
 - (2) The Contractor asserts its right to an adjustment within 30 days after the end of the period of work stoppage; provided, that if the Contracting Officer decides the facts justify the action, the Contracting Officer may receive and act upon a proposal at any time before final payment under this contract.
- (c) If a stop-work order is not canceled and the work covered by the order is terminated for the convenience of the Government, the Contracting Officer shall allow reasonable costs resulting from the stop-work order in arriving at the termination settlement.
- (d) If a stop-work order is not canceled and the work covered by the order is terminated for default, the Contracting Officer shall allow, by equitable adjustment or otherwise, reasonable costs resulting from the stop-work order.
- (e) The Government's rights to terminate this contract at any time are not affected by action taken under this clause.
- (f) If, as the result of the Contractor's intentional or negligent misstatement, misrepresentation, or miscertification, a protest related to this contract is sustained, and the Government pays costs, as provided in FAR 33.102(b)(2) or 33.104(h)(1), the Government may require the Contractor to reimburse the Government the amount of such costs. In addition to any other remedy available, and pursuant to the requirements of Subpart 32.6, the Government may collect this debt by offsetting the amount against any payment due the Contractor under any contract between the Contractor and the Government.

I.77 52.237-2 Protection of Government Buildings, Equipment, and Vegetation (APR 1984)

The Contractor shall use reasonable care to avoid damaging existing buildings, equipment, and vegetation on the Government installation. If the Contractor's failure to use reasonable care causes damage to any of this property, the Contractor shall replace or repair the damage at no expense to the Government as the Contracting Officer directs. If the Contractor fails or refuses to make such repair or replacement, the Contractor shall be liable for the cost, which may be deducted from the contract price.

I.78 52.237-3 Continuity of Services (JAN 1991)

- (a) The Contractor recognizes that the services under this contract are vital to the Government and must be continued without interruption and that, upon contract expiration, a successor, either the Government or another contractor, may continue them. The Contractor agrees to

- (1) Furnish phase-in training; and
 - (2) Exercise its best efforts and cooperation to effect an orderly and efficient transition to a successor.
- (b) The Contractor shall, upon the Contracting Officer's written notice,
- (1) furnish phase-in, phase-out services for up to 90 days after this contract expires and
 - (2) negotiate in good faith a plan with a successor to determine the nature and extent of phase-in, phase-out services required.
- The plan shall specify a training program and a date for transferring responsibilities for each division of work described in the plan, and shall be subject to the Contracting Officer's approval. The Contractor shall provide sufficient experienced personnel during the phase-in, phase-out period to ensure that the services called for by this contract are maintained at the required level of proficiency.
- (c) The Contractor shall allow as many personnel as practicable to remain on the job to help the successor maintain the continuity and consistency of the services required by this contract. The Contractor also shall disclose necessary personnel records and allow the successor to conduct on-site interviews with these employees. If selected employees are agreeable to the change, the Contractor shall release them at a mutually agreeable date and negotiate transfer of their earned fringe benefits to the successor.
- (d) The Contractor shall be reimbursed for all reasonable phase-in, phase-out costs (i.e., costs incurred within the agreed period after contract expiration that result from phase-in, phase-out operations) and a fee (profit) not to exceed a pro rata portion of the fee (profit) under this contract.

I.79 52.242-1 Notice of Intent to Disallow Costs (APR 1984)

- (a) Notwithstanding any other clause of this contract -
- (1) The Contracting Officer may at any time issue to the Contractor a written notice of intent to disallow specified costs incurred or planned for incurrence under this contract that have been determined not to be allowable under the contract terms; and
 - (2) The Contractor may, after receiving a notice under subparagraph (1) above, submit a written response to the Contracting Officer, with justification for allowance of the costs. If the Contractor does respond within 60 days, the Contracting Officer shall, within 60 days of receiving the response, either make a written withdrawal of the notice or issue a written decision.
- (b) Failure to issue a notice under this Notice of Intent to Disallow Costs clause shall not affect the Government's rights to take exception to incurred costs.

I.80 52.242-3 Penalties for Unallowable Costs (MAY 2001)

- (a) Definition.

"Proposal," as used in this clause, means either -

- (1) A final indirect cost rate proposal submitted by the Contractor after the expiration of its fiscal year which –
 - (i) Relates to any payment made on the basis of billing rates; or
 - (ii) Will be used in negotiating the final contract price; or
 - (2) The final statement of costs incurred and estimated to be incurred under the Incentive Price Revision clause (if applicable), which is used to establish the final contract price.
- (b) Contractors which include unallowable indirect costs in a proposal may be subject to penalties. The penalties are prescribed in 10 U.S.C. 2324 or 41 U.S.C. 256, as applicable, which is implemented in Section 42.709 of the Federal Acquisition Regulation (FAR).
- (c) The Contractor shall not include in any proposal any cost that is unallowable, as defined in Subpart 2.1 of the FAR, or an executive agency supplement to the FAR.
- (d) If the Contracting Officer determines that a cost submitted by the Contractor in its proposal is expressly unallowable under a cost principle in the FAR, or an executive agency supplement to the FAR, that defines the allowability of specific selected costs, the Contractor shall be assessed a penalty equal to -
- (1) The amount of the disallowed cost allocated to this contract; plus
 - (2) Simple interest, to be computed -
 - (i) On the amount the Contractor was paid (whether as a progress or billing payment) in excess of the amount to which the Contractor was entitled; and
 - (ii) Using the applicable rate effective for each six-month interval prescribed by the Secretary of the Treasury pursuant to Pub. L. 92-41 (85 Stat. 97).
- (e) If the Contracting Officer determines that a cost submitted by the Contractor in its proposal includes a cost previously determined to be unallowable for that Contractor, then the Contractor will be assessed a penalty in an amount equal to two times the amount of the disallowed cost allocated to this contract.
- (f) Determinations under paragraphs (d) and (e) of this clause are final decisions within the meaning of the Contract Disputes Act of 1978 (41 U.S.C. 601, et seq.).
- (g) Pursuant to the criteria in FAR 42.709-5, the Contracting Officer may waive the penalties in paragraph (d) or (e) of this clause.
- (f) Payment by the Contractor of any penalty assessed under this clause does not constitute repayment to the Government of any unallowable cost which has been paid by the Government to the Contractor.

I.81 52.242-4 Certification of Final Indirect Costs (JAN 1997)

- (a) The Contractor shall -
- (1) Certify any proposal to establish or modify final indirect cost rates;
 - (2) Use the format in paragraph (c) of this clause to certify; and
 - (3) Have the certificate signed by an individual of the Contractor's organization at a level no

lower than a vice president or chief financial officer of the business segment of the Contractor that submits the proposal.

- (b) Failure by the Contractor to submit a signed certificate, as described in this clause, may result in final indirect costs at rates unilaterally established by the Contracting Officer.
- (c) The certificate of final indirect costs shall read as follows:

Certificate of Final Indirect Costs

This is to certify that I have reviewed this proposal to establish final indirect cost rates and to the best of my knowledge and belief:

- (1) All costs included in this proposal (identify proposal and date) to establish final indirect cost rates for (identify period covered by rate) are allowable in accordance with the cost principles of the Federal Acquisition Regulation (FAR) and its supplements applicable to the contracts to which the final indirect cost rates will apply; and
- (2) This proposal does not include any costs which are expressly unallowable under applicable cost principles of the FAR or its supplements.

Firm: _____

Signature: _____

Name of Certifying Official: _____

Title: _____

Date of Execution: _____

I.82 52.242-13 Bankruptcy (JUL 1995)

In the event the Contractor enters into proceedings relating to bankruptcy, whether voluntary or involuntary, the Contractor agrees to furnish, by certified mail or electronic commerce method authorized by the contract, written notification of the bankruptcy to the Contracting Officer responsible for administering the contract. This notification shall be furnished within five days of the initiation of the proceedings relating to bankruptcy filing. This notification shall include the date on which the bankruptcy petition was filed, the identity of the court in which the bankruptcy petition was filed, and a listing of Government contract numbers and contracting offices for all Government contracts against which final payment has not been made. This obligation remains in effect until final payment under this contract.

I.83 52.243-2 Changes – Cost Reimbursement (AUG 1987) - Alternate II (APR 1984)

- (a) The Contracting Officer may at any time, by written order, and without notice to the sureties, if any, make changes within the general scope of this contract in any one or more of the following:
 - (1) Description of services to be performed.
 - (2) Time of performance (i.e., hours of the day, days of the week, etc.).

- (3) Place of performance of the services.
 - (4) Drawings, designs, or specifications when the supplies to be furnished are to be specially manufactured for the Government in accordance with the drawings, designs, or specifications.
 - (5) Method of shipment or packing of supplies.
 - (6) Place of delivery.
- (b) If any such change causes an increase or decrease in the estimated cost of, or the time required for, performance of any part of the work under this contract, whether or not changed by the order, or otherwise affects any other terms and conditions of this contract, the Contracting Officer shall make an equitable adjustment in the -
- (1) Estimated cost, delivery or completion schedule, or both;
 - (2) Amount of any fixed fee; and
 - (3) Other affected terms and shall modify the contract accordingly.
- (c) The Contractor must assert its right to an adjustment under this clause within 30 days from the date of receipt of the written order. However, if the Contracting Officer decides that the facts justify it, the Contracting Officer may receive and act upon a proposal submitted before final payment of the contract.
- (d) Failure to agree to any adjustment shall be a dispute under the Disputes clause. However, nothing in this clause shall excuse the Contractor from proceeding with the contract as changed.
- (e) Notwithstanding the terms and conditions of paragraphs (a) and (b) above, the estimated cost of this contract and, if this contract is incrementally funded, the funds allotted for the performance of this contract, shall not be increased or considered to be increased except by specific written modification of the contract indicating the new contract estimated cost and, if this contract is incrementally funded, the new amount allotted to the contract. Until this modification is made, the Contractor shall not be obligated to continue performance or incur costs beyond the point established in the Limitation of Cost or Limitation of Funds clause of this contract.

I.84 52.243-6 Change Order Accounting (APR 1984)

The Contracting Officer may require change order accounting whenever the estimated cost of a change or series of related changes exceeds \$100,000. The Contractor, for each change or series of related changes, shall maintain separate accounts, by job order or other suitable accounting procedure, of all incurred segregable, direct costs (less allocable credits) of work, both changed and not changed, allocable to the change. The Contractor shall maintain such accounts until the parties agree to an equitable adjustment for the changes ordered by the Contracting Officer or the matter is conclusively disposed of in accordance with the Disputes clause.

I.85 52.244-2 Subcontracts Alternate I (JUN 2007)

(a) Definitions. As used in this clause—

“Approved purchasing system” means a Contractor’s purchasing system that has been reviewed and approved in accordance with Part 44 of the Federal Acquisition Regulation (FAR).

“Consent to subcontract” means the Contracting Officer’s written consent for the Contractor to enter into a particular subcontract.

“Subcontract” means any contract, as defined in FAR Subpart 2.1, entered into by a subcontractor to furnish supplies or services for performance of the prime contract or a subcontract. It includes, but is not limited to, purchase orders, and changes and modifications to purchase orders.

(b) When this clause is included in a fixed-price type contract, consent to subcontract is required only on unpriced contract actions (including unpriced modifications or unpriced delivery orders), and only if required in accordance with paragraph (c) or (d) or this clause.

(c) If the contractor does not have an approved purchasing system, consent to subcontract is required for any subcontract that—

(1) Is of the cost-reimbursement, time-and-materials, or labor-hour type; or

(2) Is fixed-price and exceeds—

- (i) For a contract awarded by the Department of Defense, the Coast Guard, or the national Aeronautics and Space Administration, the greater of the simplified acquisition threshold or 5 percent of the total estimated cost of the contract; or
- (ii) For contracts awarded by a civilian agency other than the Coast Guard and the National Aeronautics and Space Administration, either the simplified acquisition threshold or 5 percent of the total estimated cost of the contract.

(d) If the Contractor has an approved purchasing system, the Contractor nevertheless shall obtain the Contracting Officer’s written consent before placing the following subcontracts:

TBD

(e) (1) The Contractor shall notify the Contracting Officer reasonably in advance of placing any subcontract or modification thereof for which consent is required under paragraph (b), (c), or (d) of this clause, including the following information:

- (i) A description of the supplies or services to be subcontracted.
- (ii) Identification of the type of subcontract to be used.
- (iii) Identification of the proposed subcontractor.
- (iv) The proposed subcontract price.
- (v) The subcontractor’s current, complete, and accurate cost or pricing data and Certificate of Current Cost or Pricing Data, if required by other contract provisions.
- (vi) The subcontractor’s Disclosure Statement or Certificate relating to Cost Accounting Standards when such data are required by other provisions of this contract.
- (vii) A negotiation memorandum reflecting —
 - (A) The principal elements of the subcontract price negotiations;

- (B) The most significant considerations controlling establishment of initial or revised prices;
 - (C) The reason cost or pricing data were or were not required;
 - (D) The extent, if any, to which the Contractor did not rely on the subcontractor's cost or pricing data in determining the price objective and in negotiating the final price;
 - (E) The extent to which it was recognized in the negotiation that the subcontractor's cost or pricing data were not accurate, complete, or current; the action taken by the Contractor and the subcontractor; and the effect of any such defective data on the total price negotiated;
 - (F) The reasons for any significant difference between the Contractor's price objective and the price negotiated; and
 - (G) A complete explanation of the incentive fee or profit plan when incentives are used. The explanation shall identify each critical performance element, management decisions used to quantify each incentive element, reasons for the incentives, and a summary of all trade-off possibilities considered.
- (2) If the Contractor has an approved purchasing system and consent is not required under paragraph (c) or (d) of this clause, the Contractor nevertheless shall notify the Contracting Officer reasonably in advance of entering into any (i) cost-plus-fixed-fee subcontract, or (ii) fixed-price subcontract that exceeds either the simplified acquisition threshold or 5 percent of the total estimated cost of this contract. The notification shall include the information required by paragraphs (e)(1)(i) through (e)(1)(iv) of this clause.
- (f) Unless the consent or approval specifically provides otherwise, neither consent by the Contracting Officer to any subcontract nor approval of the Contractor's purchasing system shall constitute a determination —
- (1) Of the acceptability of any subcontract terms or conditions;
 - (2) Of the allowability of any cost under this contract; or
 - (3) To relieve the Contractor of any responsibility for performing this contract.
- (g) No subcontract or modification thereof placed under this contract shall provide for payment on a cost-plus-a-percentage-of-cost basis, and any fee payable under cost-reimbursement type subcontracts shall not exceed the fee limitations in FAR 15.404-4(c)(4)(i).
- (h) The Contractor shall give the Contracting Officer immediate written notice of any action or suit filed and prompt notice of any claim made against the Contractor by any subcontractor or vendor that, in the opinion of the Contractor, may result in litigation related in any way to this contract, with respect to which the Contractor may be entitled to reimbursement from the Government.
- (i) The Government reserves the right to review the Contractor's purchasing system as set forth in FAR Subpart 44.3.
- (j) Paragraphs (c) and (e) of this clause do not apply to the following subcontracts, which were evaluated during negotiations:

I.86 52.244-5 Competition in Subcontracting (DEC 1996)

- (a) The Contractor shall select subcontractors (including suppliers) on a competitive basis to the maximum practical extent consistent with the objectives and requirements of the contract.
- (b) If the Contractor is an approved mentor under the Department of Defense Pilot Mentor-Protégé Program (Pub. L. 101-510, section 831 as amended), the Contractor may award subcontracts under this contract on a noncompetitive basis to its protégés.

I.87 52.244-6 Subcontracts for Commercial Items (MAR 2007)

- (a) Definitions. As used in this clause—

"Commercial item" has the meaning contained in Federal Acquisition Regulation 2.101, Definitions.

"Subcontract" includes a transfer of commercial items between divisions, subsidiaries, or affiliates of the Contractor or subcontractor at any tier.

- (b) To the maximum extent practicable, the Contractor shall incorporate, and require its subcontractors at all tiers to incorporate, commercial items or nondevelopmental items as components of items to be supplied under this contract.
- (c) (1) The following clauses shall be flowed down to subcontracts for commercial items:
 - (i) 52.219-8, Utilization of Small Business Concerns (MAY 2004) (15 U.S.C. 637(d)(2) and (3)), in all subcontracts that offer further subcontracting opportunities. If the subcontract (except subcontracts to small business concerns) exceeds \$500,000 (\$1,000,000 for construction of any public facility), the subcontractor must include 52.219-8 in lower tier subcontracts that offer subcontracting opportunities.
 - (ii) 52.222-26, Equal Opportunity (MAR 2007) (E.O. 11246).
 - (iii) 52.222-35, Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (SEPT 2006) (38 U.S.C. 4212(a)).
 - (iv) 52.222-36, Affirmative Action for Workers with Disabilities (JUN 1998) (29 U.S.C. 793).
 - (v) 52.222-39, Notification of Employee Rights Concerning Payment of Union Dues or Fees (DEC 2004) (E.O. 13201). Flow down as required in accordance with paragraph (g) of FAR clause 52.222-39).
 - (vi) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (FEB 2006) (46 U.S.C. Appx 1241 and 10 U.S.C. 2631) (flow down required in accordance with paragraph (d) of FAR clause 52.247-64).
- (2) While not required, the Contractor may flow down to subcontracts for commercial items a minimal number of additional clauses necessary to satisfy its contractual obligations.
- (d) The Contractor shall include the terms of this clause, including this paragraph (d), in subcontracts awarded under this contract.

I.88 52.245-1 Government Property (JUN 2007)

- (a) Definitions. As used in this clause—

"Acquisition cost" means the cost to acquire a tangible capital asset including the purchase price of the asset and costs necessary to prepare the asset for use. Costs necessary to

prepare the asset for use include the cost of placing the asset in location and bringing the asset to a condition necessary for normal or expected use.

“Cannibalize” means to remove serviceable parts from one item of equipment in order to install them on another item of equipment.

“Contractor-acquired property” means property acquired, fabricated, or otherwise provided by the Contractor for performing a contract, and to which the Government has title.

“Contractor inventory” means—

- (1) Any property acquired by and in the possession of a Contractor or subcontractor under a contract for which title is vested in the Government and which exceeds the amounts needed to complete full performance under the entire contract;
- (2) Any property that the Government is obligated or has the option to take over under any type of contract, e.g., as a result either of any changes in the specifications or plans thereunder or of the termination of the contract (or subcontract thereunder), before completion of the work, for the convenience or at the option of the Government; and
- (3) Government-furnished property that exceeds the amounts needed to complete full performance under the entire contract.

“Contractor's managerial personnel” means the Contractor's directors, officers, managers, superintendents, or equivalent representatives who have supervision or direction of—

- (1) All or substantially all of the Contractor's business;
- (2) All or substantially all of the Contractor's operation at any one plant or separate location; or
- (3) A separate and complete major industrial operation.

“Demilitarization” means rendering a product unusable for, and not restorable to, the purpose for which it was designed or is customarily used.

“Discrepancies incident to shipment” means any differences (e.g., count or condition) between the items documented to have been shipped and items actually received.

“Equipment” means a tangible asset that is functionally complete for its intended purpose, durable, nonexpendable, and needed for the performance of a contract. Equipment is not intended for sale, and does not ordinarily lose its identity or become a component part of another article when put into use.

“Government-furnished property” means property in the possession of, or directly acquired by, the Government and subsequently furnished to the Contractor for performance of a contract.

“Government property” means all property owned or leased by the Government. Government property includes both Government-furnished and Contractor-acquired property.

“Material” means property that may be consumed or expended during the performance of a contract, component parts of a higher assembly, or items that lose their individual identity through incorporation into an end-item. Material does not include equipment, special tooling and special test equipment.

“Nonseverable” means property that cannot be removed after construction or installation without substantial loss of value or damage to the installed property or to the premises where installed.

“Plant equipment” as used in this part, means personal property of a capital nature (including equipment, machine tools, test equipment, furniture, vehicles, and accessory and auxiliary items) for use in manufacturing supplies, in performing services, or for any administrative or general plant purpose. It does not include special tooling or special test equipment.

“Precious metals” means silver, gold, platinum, palladium, iridium, osmium, rhodium, and ruthenium.

“Property” means all tangible property, both real and personal.

“Property Administrator” means an authorized representative of the Contracting Officer appointed in accordance with agency procedures, responsible for administering the contract requirements and obligations relating to Government property in the possession of a Contractor.

“Provide” means to furnish, as in Government-furnished property, or to acquire, as in contractor-acquired property.

“Real property” means land and rights in land, ground improvements, utility distribution systems, and buildings and other structures. It does not include foundations and other work necessary for installing special tooling, special test equipment, or plant equipment.

“Sensitive property” means property potentially dangerous to the public safety or security if stolen, lost, or misplaced, or that shall be subject to exceptional physical security, protection, control, and accountability. Examples include weapons, ammunition, explosives, controlled substances, radioactive materials, hazardous materials or wastes, or precious metals.

“Surplus property” means excess personal property not required by any Federal agency as determined by the Administrator of the General Services Administration (GSA).

(b) Property management.

- (1) The Contractor shall have a system to manage (control, use, preserve, protect, repair and maintain) Government property in its possession. The system shall be adequate to satisfy the requirements of this clause. In doing so, the Contractor shall initiate and maintain the processes, systems, procedures, records, and methodologies necessary for effective control of Government property, consistent with voluntary consensus standards and/or industry-leading practices and standards for Government property management except where inconsistent with law or regulation. During the period of performance, the Contractor shall disclose any significant changes to their property management system to the Property Administrator prior to implementation.
- (2) The Contractor's responsibility extends from the initial acquisition and receipt of property, through stewardship, custody, and use until formally relieved of responsibility by authorized means, including delivery, consumption, expending, disposition, or via a completed investigation, evaluation, and final determination for lost, damaged, destroyed, or stolen property. This requirement applies to all Government property under the Contractor's accountability, stewardship, possession or control, including its vendors or subcontractors (see paragraph (f)(1)(v) of this clause).
- (3) The Contractor shall include the requirements of this clause in all subcontracts under which Government property is acquired or furnished for subcontract performance.

- (c) Use of Government property. The Contractor shall use Government property, either furnished or acquired under this contract, only for performing this contract, unless otherwise provided for in this contract or approved by the Contracting Officer. The Contractor shall not modify, cannibalize, or make alterations to Government property unless this contract specifically identifies the modifications, alterations or improvements as work to be performed.
- (d) Government-furnished property.
- (1) The Government shall deliver to the Contractor the Government-furnished property described in this contract. The Government shall furnish related data and information needed for the intended use of the property. The warranties of suitability of use and timely delivery of Government-furnished property do not apply to property acquired or fabricated by the Contractor as contractor-acquired property and subsequently transferred to another contract with this Contractor.
 - (2) The delivery and/or performance dates specified in this contract are based upon the expectation that the Government-furnished property will be suitable for contract performance and will be delivered to the Contractor by the dates stated in the contract.
 - (i) If the property is not delivered to the Contractor by the dates stated in the contract, the Contracting Officer shall, upon the Contractor's timely written request, consider an equitable adjustment to the contract.
 - (ii) In the event property is received by the Contractor, or for Government-furnished property after receipt and installation, in a condition not suitable for its intended use, the Contracting Officer shall, upon the Contractor's timely written request, advise the Contractor on a course of action to remedy the problem. Such action may include repairing, replacing, modifying, returning, or otherwise disposing of the property at the Government's expense. Upon completion of the required action(s), the Contracting Officer shall consider an equitable adjustment to the contract (see also paragraph (f)(1)(ii)(A) of this clause).
 - (iii) The Government may, at its option, furnish property in an "as-is" condition. The Contractor will be given the opportunity to inspect such property prior to the property being provided. In such cases, the Government makes no warranty with respect to the serviceability and/or suitability of the property for contract performance. Any repairs, replacement, and/or refurbishment shall be at the Contractor's expense.
 - (3)
 - (i) The Contracting Officer may by written notice, at any time—
 - (A) Increase or decrease the amount of Government-furnished property under this contract;
 - (B) Substitute other Government-furnished property for the property previously furnished, to be furnished, or to be acquired by the Contractor for the Government under this contract; or
 - (C) Withdraw authority to use property.
 - (ii) Upon completion of any action(s) under paragraph (d)(3)(i) of this clause, and the Contractor's timely written request, the Contracting Officer shall consider an equitable adjustment to the contract.
- (e) Title to Government property.
- (1) The Government shall retain title to all Government-furnished property. Title to Government property shall not be affected by its incorporation into or attachment to any property not owned by the Government, nor shall Government property become a fixture or lose its identity as personal property by being attached to any real property.

- (2) Fixed-price contracts.
 - (i) All Government-furnished property and all property acquired by the Contractor, title to which vests in the Government under this paragraph (collectively referred to as "Government property"), are subject to the provisions of this clause.
 - (ii) Title to each item of equipment, special test equipment and special tooling acquired by the Contractor for the Government under this contract shall pass to and vest in the Government when its use in performing this contract commences or when the Government has paid for it, whichever is earlier, whether or not title previously vested in the Government.
 - (iii) If this contract contains a provision directing the Contractor to purchase material for which the Government will reimburse the Contractor as a direct item of cost under this contract—
 - (A) Title to material purchased from a vendor shall pass to and vest in the Government upon the vendor's delivery of such material; and
 - (B) Title to all other material shall pass to and vest in the Government upon—
 - (1) Issuance of the material for use in contract performance;
 - (2) Commencement of processing of the material or its use in contract performance; or
 - (3) Reimbursement of the cost of the material by the Government, whichever occurs first.
- (3) Title under Cost-Reimbursement or Time-and-Material Contracts or Cost-Reimbursable contract line items under Fixed-Price contracts.
 - (i) Title to all property purchased by the Contractor for which the Contractor is entitled to be reimbursed as a direct item of cost under this contract shall pass to and vest in the Government upon the vendor's delivery of such property.
 - (ii) Title to all other property, the cost of which is reimbursable to the Contractor, shall pass to and vest in the Government upon—
 - (A) Issuance of the property for use in contract performance;
 - (B) Commencement of processing of the property for use in contract performance; or
 - (C) Reimbursement of the cost of the property by the Government, whichever occurs first.
 - (iii) All Government-furnished property and all property acquired by the Contractor, title to which vests in the Government under this paragraph (e)(3)(i) (collectively referred to as "Government property"), are subject to the provisions of this clause.
- (f) Contractor plans and systems.
 - (1) Contractors shall establish and implement property management plans, systems, and procedures at the contract, program, site or entity level to enable the following outcomes:
 - (i) Acquisition of Property. The Contractor shall document that all property was acquired consistent with its engineering, production planning, and material control operations.
 - (ii) Receipt of Government Property. The Contractor shall receive Government property (document the receipt), record the information necessary to meet the record requirements of paragraph (f)(1)(iii)(A)(1) through (5) of this clause, identify as Government owned in a manner appropriate to the type of property (e.g., stamp, tag, mark, or other identification), and manage any discrepancies incident to shipment.
 - (A) Government-furnished property. The Contractor shall furnish a written statement to the Property Administrator containing all relevant facts, such as cause or condition and a recommended course(s) of action, if overages,

- shortages, or damages and/or other discrepancies are discovered upon receipt of Government-furnished property.
- (B) Contractor-acquired property. The Contractor shall take all actions necessary to adjust for overages, shortages, damage and/or other discrepancies discovered upon receipt, in shipment of Contractor-acquired property from a vendor or supplier, so as to ensure the proper allocability and allowability of associated costs.
- (iii) Records of Government property. The Contractor shall create and maintain records of all Government property accountable to the contract, including Government-furnished and Contractor-acquired property.
- (A) Property records shall enable a complete, current, auditable record of all transactions and shall, unless otherwise approved by the Property Administrator, contain the following:
 - (1) The name, part number and description, manufacturer, model number, and National Stock Number (if needed for additional item identification tracking and/or disposition).
 - (2) Quantity received (or fabricated), issued, and balance-on-hand.
 - (3) Unit acquisition cost.
 - (4) Unique-item identifier or equivalent (if available and necessary for individual item tracking).
 - (5) Unit of measure.
 - (6) Accountable contract number or equivalent code designation.
 - (7) Location.
 - (8) Disposition.
 - (9) Posting reference and date of transaction.
 - (10) Date placed in service.
 - (B) Use of a Receipt and Issue System for Government Material. When approved by the Property Administrator, the Contractor may maintain, in lieu of formal property records, a file of appropriately cross-referenced documents evidencing receipt, issue, and use of material that is issued for immediate consumption.
- (iv) Physical inventory. The Contractor shall periodically perform, record, and disclose physical inventory results. A final physical inventory shall be performed upon contract completion or termination. The Property Administrator may waive this final inventory requirement, depending on the circumstances (e.g., overall reliability of the Contractor's system or the property is to be transferred to a follow-on contract).
- (v) Subcontractor control.
- (A) The Contractor shall award subcontracts that clearly identify assets to be provided and shall ensure appropriate flow down of contract terms and conditions (e.g., extent of liability for loss, damage, destruction or theft of Government property).
 - (B) The Contractor shall assure its subcontracts are properly administered and reviews are periodically performed to determine the adequacy of the subcontractor's property management system.
- (vi) Reports. The Contractor shall have a process to create and provide reports of discrepancies; loss, damage, destruction, or theft; physical inventory results; audits and self-assessments; corrective actions; and other property related reports as directed by the Contracting Officer.
- (A) Loss, damage, destruction, or theft. Unless otherwise directed by the Property Administrator, the Contractor shall investigate and promptly furnish a written narrative of all incidents of loss, damage, destruction, or theft to the property administrator as soon as the facts become known or when requested by the Government.
 - (B) Such reports shall, at a minimum, contain the following information:
 - (1) Date of incident (if known).

- (2) The name, commercial description, manufacturer, model number, and National Stock Number (if applicable).
 - (3) Quantity.
 - (4) Unique Item Identifier (if available).
 - (5) Accountable Contract number.
 - (6) A statement indicating current or future need.
 - (7) Acquisition cost, or if applicable, estimated scrap proceeds, estimated repair or replacement costs.
 - (8) All known interests in commingled property of which the Government property is a part.
 - (9) Cause and corrective action taken or to be taken to prevent recurrence.
 - (10) A statement that the Government will receive any reimbursement covering the loss, damage, destruction, or theft, in the event the Contractor was or will be reimbursed or compensated.
 - (11) Copies of all supporting documentation.
 - (12) Last known location.
 - (13) A statement that the property did or did not contain sensitive or hazardous material, and if so, that the appropriate agencies were notified.
- (vii) Relief of stewardship responsibility. Unless the contract provides otherwise, the Contractor shall be relieved of stewardship responsibility for Government property when such property is—
- (A) Consumed or expended, reasonably and properly, or otherwise accounted for, in the performance of the contract, including reasonable inventory adjustments of material as determined by the Property Administrator; or a Property Administrator granted relief of responsibility for loss, damage, destruction or theft of Government property;
 - (B) Delivered or shipped from the Contractor's plant, under Government instructions, except when shipment is to a subcontractor or other location of the Contractor; or
 - (C) Disposed of in accordance with paragraphs (j) and (k) of this clause.
- (viii) Utilizing Government property.
- (A) The Contractor shall utilize, consume, move, and store Government Property only as authorized under this contract. The Contractor shall promptly disclose and report Government property in its possession that is excess to contract performance.
 - (B) Unless otherwise authorized in this contract or by the Property Administrator the Contractor shall not commingle Government property with property not owned by the Government.
- (ix) Maintenance. The Contractor shall properly maintain Government property. The Contractor's maintenance program shall enable the identification, disclosure, and performance of normal and routine preventative maintenance and repair. The Contractor shall disclose and report to the Property Administrator the need for replacement and/or capital rehabilitation.
- (x) Property closeout. The Contractor shall promptly perform and report to the Property Administrator contract property closeout, to include reporting, investigating and securing closure of all loss, damage, destruction, or theft cases; physically inventorying all property upon termination or completion of this contract; and disposing of items at the time they are determined to be excess to contractual needs.
- (2) The Contractor shall establish and maintain Government accounting source data, as may be required by this contract, particularly in the areas of recognition of acquisitions and dispositions of material and equipment.

- (3) The Contractor shall establish and maintain procedures necessary to assess its property management system effectiveness, and shall perform periodic internal reviews and audits. Significant findings and/or results of such reviews and audits pertaining to Government property shall be made available to the Property Administrator.

(g) Systems analysis.

- (1) The Government shall have access to the contractor's premises and all Government property, at reasonable times, for the purposes of reviewing, inspecting and evaluating the Contractor's property management plan, systems, procedures, records, and supporting documentation that pertains to Government property.
- (2) Records of Government property shall be readily available to authorized Government personnel and shall be safeguarded from tampering or destruction.
- (3) Should it be determined by the Government that the Contractor's property management practices are inadequate or not acceptable for the effective management and/or control of Government property under this contract, and/or present an undue risk to the Government, the Contractor shall immediately take all necessary corrective actions as directed by the Property Administrator.
- (4) The Contractor shall ensure Government access to subcontractor premises, and all Government property located at subcontractor premises, for the purposes of reviewing, inspecting and evaluating the subcontractor's property management plan, systems, procedures, records, and supporting documentation that pertains to Government property.

(h) Contractor Liability for Government Property.

- (1) Unless otherwise provided for in the contract, the Contractor shall not be liable for loss, damage, destruction, or theft to the Government property furnished or acquired under this contract, except when any one of the following applies—
 - (i) The risk is covered by insurance or the Contractor is otherwise reimbursed (to the extent of such insurance or reimbursement). The allowability of insurance costs shall be determined in accordance with 31.205-19.
 - (ii) The loss, damage, destruction, or theft is the result of willful misconduct or lack of good faith on the part of the Contractor's managerial personnel. Contractor's managerial personnel, in this clause, means the Contractor's directors, officers, managers, superintendents, or equivalent representatives who have supervision or direction of all or substantially all of the Contractor's business; all or substantially all of the Contractor's operation at any one plant or separate location; or a separate and complete major industrial operation.
 - (iii) The Contracting Officer has, in writing, revoked the Government's assumption of risk for loss, damage, destruction, or theft, due to a determination under paragraph (g) of this clause that the Contractor's property management practices are inadequate, and/or present an undue risk to the Government, and the Contractor failed to take timely corrective action. If the Contractor can establish by clear and convincing evidence that the loss, damage, destruction, or theft of Government property occurred while the Contractor had adequate property management practices or the loss, damage, destruction, or theft of Government property did not result from the Contractor's failure to maintain adequate property management practices, the Contractor shall not be held liable.
- (2) The Contractor shall take all reasonable actions necessary to protect the Government property from further loss, damage, destruction, or theft. The Contractor shall separate

the damaged and undamaged Government property, place all the affected Government property in the best possible order, and take such other action as the Property Administrator directs.

- (3) The Contractor shall do nothing to prejudice the Government's rights to recover against third parties for any loss, damage, destruction, or theft of Government property.
 - (4) Upon the request of the Contracting Officer, the Contractor shall, at the Government's expense, furnish to the Government all reasonable assistance and cooperation, including the prosecution of suit and the execution of instruments of assignment in favor of the Government in obtaining recovery.
- (i) Equitable adjustment. Equitable adjustments under this clause shall be made in accordance with the procedures of the Changes clause. The right to an equitable adjustment shall be the Contractor's exclusive remedy and the Government shall not be liable to suit for breach of contract for the following:
- (1) Any delay in delivery of Government-furnished property.
 - (2) Delivery of Government-furnished property in a condition not suitable for its intended use.
 - (3) An increase, decrease, or substitution of Government-furnished property.
 - (4) Failure to repair or replace Government property for which the Government is responsible.
- (j) Contractor inventory disposal. Except as otherwise provided for in this contract, the Contractor shall not dispose of Contractor inventory until authorized to do so by the Plant Clearance Officer.
- (1) Scrap to which the Government has obtained title under paragraph (e) of this clause.
 - (i) Contractor with an approved scrap procedure.
 - (A) The Contractor may dispose of scrap resulting from production or testing under this contract without Government approval. However, if the scrap requires demilitarization or is sensitive property, the Contractor shall submit the scrap on an inventory disposal schedule.
 - (B) For scrap from other than production or testing the Contractor may prepare scrap lists in lieu of inventory disposal schedules (provided such lists are consistent with the approved scrap procedures), except that inventory disposal schedules shall be submitted for scrap aircraft or aircraft parts and scrap that—
 - (1) Requires demilitarization;
 - (2) Is a classified item;
 - (3) Is generated from classified items;
 - (4) Contains hazardous materials or hazardous wastes;
 - (5) Contains precious metals; or
 - (6) Is dangerous to the public health, safety, or welfare.
 - (ii) Contractor without an approved scrap procedure. The Contractor shall submit an inventory disposal schedule for all scrap. The Contractor may not dispose of scrap resulting from production or testing under this contract without Government approval.

- (2) Predisposal requirements.
 - (i) Once the Contractor determines that Contractor-acquired property is no longer needed for contract performance, the Contractor in the following order of priority—
 - (A) May contact the Contracting Officer if use of the property in the performance of other Government contracts is practical;
 - (B) May purchase the property at the acquisition cost; or
 - (C) Shall make reasonable efforts to return unused property to the appropriate supplier at fair market value (less, if applicable, a reasonable restocking fee that is consistent with the supplier's customary practices).
 - (ii) The Contractor shall list, on Standard Form 1428, Inventory Disposal Schedule, property that was not used in the performance of other Government contracts under paragraph (j)(2)(i)(A) of this clause, property that was not purchased under paragraph (j)(2)(i)(B) of this clause, and property that could not be returned to a supplier under paragraph (j)(2)(i)(C) of this clause.
- (3) Inventory disposal schedules.
 - (i) The Contractor shall use Standard Form 1428, Inventory Disposal Schedule, to identify—
 - (A) Government-furnished property that is no longer required for performance of this contract, provided the terms of another Government contract do not require the Government to furnish that property for performance of this contract;
 - (B) Contractor-acquired property, to which the Government has obtained title under paragraph (e) of this clause, which is no longer required for performance of that contract; and
 - (C) Termination inventory.
 - (ii) The Contractor may annotate inventory disposal schedules to identify property the Contractor wishes to purchase from the Government.
 - (iii) Unless the Plant Clearance Officer has agreed otherwise, or the contract requires electronic submission of inventory disposal schedules, the Contractor shall prepare separate inventory disposal schedules for—
 - (A) Special test equipment with commercial components;
 - (B) Special test equipment without commercial components;
 - (C) Printing equipment;
 - (D) Information technology (e.g., computers, computer components, peripheral equipment, and related equipment);
 - (E) Precious metals;
 - (F) Mononuclear hazardous materials or hazardous wastes; or
 - (G) Nuclear materials or nuclear wastes.
 - (iv) The Contractor shall describe the property in sufficient detail to permit an understanding of its intended use. Property with the same description, condition code, and reporting location may be grouped in a single line item.
- (4) Submission requirements. The Contractor shall submit inventory disposal schedules to the Plant Clearance Officer no later than—
 - (i) 30-days following the Contractor's determination that a Government property item is no longer required for performance of this contract;
 - (ii) 60 days, or such longer period as may be approved by the Plant Clearance Officer, following completion of contract deliveries or performance; or
 - (iii) 120 days, or such longer period as may be approved by the Termination Contracting Officer following contract termination in whole or in part.

- (5) Corrections. The Plant Clearance Officer may—
 - (i) Reject a schedule for cause (e.g., contains errors, determined to be inaccurate); and
 - (ii) Require the Contractor to correct an inventory disposal schedule.
 - (6) Postsubmission adjustments. The Contractor shall notify the Plant Clearance Officer at least 10 working days in advance of its intent to remove an item from an approved inventory disposal schedule. Upon approval of the Plant Clearance Officer, or upon expiration of the notice period, the Contractor may make the necessary adjustments to the inventory schedule.
 - (7) Storage.
 - (i) The Contractor shall store the property identified on an inventory disposal schedule pending receipt of disposal instructions. The Government's failure to furnish disposal instructions within 120 days following acceptance of an inventory disposal schedule may entitle the Contractor to an equitable adjustment for costs incurred to store such property on or after the 121st day.
 - (ii) The Contractor shall obtain the Plant Clearance Officer's approval to remove Government property from the premises where the property is currently located prior to receipt of final disposition instructions. If approval is granted, any costs incurred by the Contractor to transport or store the property shall not increase the price or fee of any Government contract. The storage facility shall be appropriate for assuring the property's physical safety and suitability for use. Approval does not relieve the Contractor of any liability for such property under this contract.
 - (8) Disposition instructions.
 - (i) If the Government does not furnish disposition instructions to the Contractor within 45 days following acceptance of a scrap list, the Contractor may dispose of the listed scrap in accordance with the Contractor's approved scrap procedures.
 - (ii) The Contractor shall prepare for shipment, deliver f.o.b. origin, or dispose of Contractor inventory as directed by the Plant Clearance Officer. If not returned to the Government, the Contractor shall remove and destroy any markings identifying the property as U.S. Government-owned property prior to its disposal.
 - (iii) The Contracting Officer may require the Contractor to demilitarize the property prior to shipment or disposal. In such cases the Contractor may be entitled to an equitable adjustment under paragraph (i) of this clause.
 - (9) Disposal proceeds. As directed by the Contracting Officer, the Contractor shall credit the net proceeds from the disposal of Contractor inventory to the contract, or to the Treasury of the United States as miscellaneous receipts.
 - (10) Subcontractor inventory disposal schedules. The Contractor shall require its Subcontractors to submit inventory disposal schedules to the Contractor in accordance with the requirements of paragraph (j)(4) of this clause.
- (k) Abandonment of Government property.
- (1) The Government shall not abandon sensitive Government property or termination inventory without the Contractor's written consent.

- (2) The Government, upon notice to the Contractor, may abandon any nonsensitive Government property in place, at which time all obligations of the Government regarding such property shall cease.
 - (3) The Government has no obligation to restore or rehabilitate the Contractor's premises under any circumstances; however, if Government-furnished property is withdrawn or is unsuitable for the intended use, or if other Government property is substituted, then the equitable adjustment under paragraph (i) of this clause may properly include restoration or rehabilitation costs.
- (l) Communication. All communications under this clause shall be in writing.
- (m) Contracts outside the United States. If this contract is to be performed outside of the United States and its outlying areas, the words "Government" and "Government-furnished" (wherever they appear in this clause) shall be construed as "United States Government" and "United States Government-furnished," respectively.

I.89 52.245-9 Use and Charges (JUN 2007)

- (i) Definitions. As used in this clause:

"Acquisition cost" means the cost to acquire a tangible capital asset including the purchase price of the asset and costs necessary to prepare the asset for use. Costs necessary to prepare the asset for use include the cost of placing the asset in location and bringing the asset to a condition necessary for normal or expected use.

"Government property" means all property owned or leased by the Government. Government property includes both Government-furnished and contractor-acquired property.

"Plant equipment," as used in this part, means personal property of a capital nature (including equipment, machine tools, test equipment, furniture, vehicles, and accessory and auxiliary items) for use in manufacturing supplies, in performing services, or for any administrative or general plant purpose. It does not include special tooling or special test equipment.

"Real property" means land and rights in land, ground improvement, utility distribution systems, and buildings and other structures. It does not include foundations and other work necessary for installing special tooling, special test equipment, or plant equipment.

"Rental period" means the calendar period during which Government property is made available for nongovernmental purposes.

"Rental time" means the number of hours, to the nearest whole hour, rented property is actually used for nongovernmental purposes. It includes time to set up the property for such purposes, perform required maintenance, and restore the property to its condition prior to rental (less normal wear and tear).

- (ii) Use of Government property. The Contractor may use the Government property without charge in the performance of—
- (1) Contracts with the Government that specifically authorize such use without charge;
 - (2) Subcontracts of any tier under Government prime contracts if the Contracting Officer having cognizance of the prime contract—

- (i) Approves a subcontract specifically authorizing such use; or
 - (ii) Otherwise authorizes such use in writing; and
- (3) Other work, if the Contracting Officer specifically authorizes in writing use without charge for such work.
- (iii) Rental. If granted written permission by the Contracting Officer, or if it is specifically provided for in the Schedule, the Contractor may use the Government property (except material) for a rental fee for work other than that provided in paragraph (b) of this clause. Authorizing such use of the Government property does not waive any rights of the Government to terminate the Contractor's right to use the Government property. The rental fee shall be determined in accordance with the following paragraphs.
- (iv) General.
 - (1) Rental requests shall be submitted to the Administrative Contracting Officer (ACO), identify the property for which rental is requested, propose a rental period, and compute an estimated rental charge by using the Contractor's best estimate of rental time in the formulae described in paragraph (e) of this clause.
 - (2) The Contractor shall not use Government property for nongovernmental purposes, including Independent Research and Development, until a rental charge for real property, or estimated rental charge for other property, is agreed upon. Rented property shall be used only on a non-interference basis.
- (v) Rental charge.—
 - (1) Real property and associated fixtures.
 - (i) The Contractor shall obtain, at its expense, a property appraisal from an independent licensed, accredited, or certified appraiser that computes a monthly, daily or hourly rental rate for comparable commercial property. The appraisal may be used to compute rentals under this clause throughout its effective period or, if an effective period is not stated in the appraisal, for one year following the date the appraisal was performed. The Contractor shall submit the appraisal to the ACO at least 30 days prior to the date the property is needed for nongovernmental use. Except as provided in paragraph (e)(1)(iii) of this clause, the ACO shall use the appraisal rental rate to determine a reasonable rental charge.
 - (ii) Rental charges shall be determined by multiplying the rental time by the appraisal rental rate expressed as a rate per hour. Monthly or daily appraisal rental rates shall be divided by 720 or 24, respectively, to determine an hourly rental rate.
 - (iii) When the ACO believes the appraisal rental rate is unreasonable, the ACO shall promptly notify the Contractor. The parties may agree on an alternative means for computing a reasonable rental charge.
 - (iv) The Contractor shall obtain, at its expense, additional property appraisals in the same manner as provided in paragraph (e)(1)(i) if the effective period has expired and the Contractor desires the continued use of property for nongovernmental use. The Contractor may obtain additional appraisals within the effective period of the current appraisal if the market prices decrease substantially.

- (2) Other Government property. The Contractor may elect to compute the rental charge using the appraisal method described in paragraph (e)(1) of this clause subject to the constraints therein or the following formula in which rental time shall be expressed in increments of not less than one hour with portions of hours rounded to the next higher hour: The rental charge is calculated by multiplying 2 percent of the acquisition cost by the hours of rental time, and dividing by 720.
 - (3) Alternative methodology. The Contractor may request consideration of an alternative basis for computing the rental charge if it considers the monthly rental rate or a time-based rental unreasonable or impractical.
- (vi) Rental payments.
- (1) Rent is due 60 days following completion of the rental period or as otherwise specified in the contract. The Contractor shall compute the rental due, and furnish records or other supporting data in sufficient detail to permit the ACO to verify the rental time and computation. Payment shall be made by check payable to the Treasurer of the United States and sent to the contract administration office identified in the contract, unless otherwise specified by the Contracting Officer.
 - (2) Interest will be charged if payment is not made by the date specified in paragraph (f)(1) of this clause. Interest will accrue at the "Renegotiation Board Interest Rate" (published in the Federal Register semiannually on or about January 1st and July 1st) for the period in which the rent is due.
 - (3) The Government's acceptance of any rental payment under this clause, in whole or in part, shall not be construed as a waiver or relinquishment of any rights it may have against the Contractor stemming from the Contractor's unauthorized use of Government property or any other failure to perform this contract according to its terms
- (vii) Use revocation. At any time during the rental period the Government may revoke nongovernmental use authorization and require the Contractor, at the Contractor's expense, to return the property to the Government, restore the property to its pre-rental condition (less normal wear and tear), or both.
- (viii) Unauthorized use. The unauthorized use of Government property can subject a person to fines, imprisonment, or both under 18 U.S.C. 641.

I.90 52.246-25 Limitation of Liability – Services (FEB 1997)

- (a) Except as provided in paragraphs (b) and (c) below, and except to the extent that the Contractor is expressly responsible under this contract for deficiencies in the services required to be performed under it (including any materials furnished in conjunction with those services), the Contractor shall not be liable for loss of or damage to property of the Government that:
 - (1) occurs after Government acceptance of services performed under this contract; and
 - (2) results from any defects or deficiencies in the services performed or materials furnished.
- (b) The limitation of liability under paragraph (a) above shall not apply when a defect or deficiency in, or the Government's acceptance of, services performed or materials furnished results from willful misconduct or lack of good faith on the part of any of the Contractor's managerial personnel. The term "Contractor's managerial personnel", as used in this clause, means the

Contractor's directors, officers, and any of the Contractor's managers, superintendents, or equivalent representatives who have supervision or direction of:

- (1) All or substantially all of the Contractor's business;
 - (2) All or substantially all of the Contractor's operations at any one plant, laboratory, or separate location at which the contract is being performed; or
 - (3) A separate and complete major industrial operation connected with the performance of this contract.
- (c) If the Contractor carries insurance, or has established a reserve for self-insurance, covering liability for loss or damage suffered by the Government through the Contractor's performance of services or furnishing of materials under this contract, the Contractor shall be liable to the Government, to the extent of such insurance or reserve, for loss of or damage to property of the Government occurring after Government acceptance of, and resulting from any defects and deficiencies in, services performed or materials furnished under this contract.

I.91 52.248-1 Value Engineering (FEB 2000)

(a) General. The Contractor is encouraged to develop, prepare, and submit value engineering change proposals (VECP's) voluntarily. The Contractor shall share in any net acquisition savings realized from accepted VECP's, in accordance with the incentive sharing rates in paragraph (f) below.

(b) Definitions.

"Acquisition savings," as used in this clause, means savings resulting from the application of a VECP to contracts awarded by the same contracting office or its successor for essentially the same unit. Acquisition savings include —

- (1) Instant contract savings, which are the net cost reductions on this, the instant contract, and which are equal to the instant unit cost reduction multiplied by the number of instant contract units affected by the VECP, less the Contractor's allowable development and implementation costs;
- (2) Concurrent contract savings, which are net reductions in the prices of other contracts that are definitized and ongoing at the time the VECP is accepted; and
- (3) Future contract savings, which are the product of the future unit cost reduction multiplied by the number of future contract units in the sharing base. On an instant contract, future contract savings include savings on increases in quantities after VECP acceptance that are due to contract modifications, exercise of options, additional orders, and funding of subsequent year requirements on a multiyear contract.

"Collateral costs," as used in this clause, means agency cost of operation, maintenance, logistic support, or Government-furnished property.

"Collateral savings," as used in this clause, means those measurable net reductions resulting from a VECP in the agency's overall projected collateral costs, exclusive of acquisition savings, whether or not the acquisition cost changes.

"Contracting office" includes any contracting office that the acquisition is transferred to, such

as another branch of the agency or another agency's office that is performing a joint acquisition action.

"Contractor's development and implementation costs," as used in this clause, means those costs the Contractor incurs on a VECP specifically in developing, testing, preparing, and submitting the VECP, as well as those costs the Contractor incurs to make the contractual changes required by Government acceptance of a VECP.

"Future unit cost reduction," as used in this clause, means the instant unit cost reduction adjusted as the Contracting Officer considers necessary for projected learning or changes in quantity during the sharing period. It is calculated at the time the VECP is accepted and applies either —

- (1) Throughout the sharing period, unless the Contracting Officer decides that recalculation is necessary because conditions are significantly different from those previously anticipated; or
- (2) To the calculation of a lump-sum payment, which cannot later be revised.

"Government costs," as used in this clause, means those agency costs that result directly from developing and implementing the VECP, such as any net increases in the cost of testing, operations, maintenance, and logistics support. The term does not include the normal administrative costs of processing the VECP or any increase in this contract's cost or price resulting from negative instant contract savings.

"Instant contract," as used in this clause, means this contract, under which the VECP is submitted. It does not include increases in quantities after acceptance of the VECP that are due to contract modifications, exercise of options, or additional orders. If this is a multiyear contract, the term does not include quantities funded after VECP acceptance. If this contract is a fixed-price contract with prospective price redetermination, the term refers to the period for which firm prices have been established.

"Instant unit cost reduction" means the amount of the decrease in unit cost of performance (without deducting any Contractor's development or implementation costs) resulting from using the VECP on this, the instant contract. If this is a service contract, the instant unit cost reduction is normally equal to the number of hours per line-item task saved by using the VECP on this contract, multiplied by the appropriate contract labor rate.

"Negative instant contract savings" means the increase in the cost or price of this contract when the acceptance of a VECP results in an excess of the Contractor's allowable development and implementation costs over the product of the instant unit cost reduction multiplied by the number of instant contract units affected.

"Net acquisition savings" means total acquisition savings, including instant, concurrent, and future contract savings, less Government costs.

"Sharing base," as used in this clause, means the number of affected end items on contracts of the contracting office accepting the VECP.

"Sharing period," as used in this clause, means the period beginning with acceptance of the first unit incorporating the VECP and ending at a calendar date or event determined by the contracting officer for each VECP.

“Unit,” as used in this clause, means the item or task to which the Contracting Officer and the Contractor agree the VECP applies.

“Value engineering change proposal (VECP)” means a proposal that —

- (1) Requires a change to this, the instant contract, to implement; and
 - (2) Results in reducing the overall projected cost to the agency without impairing essential functions or characteristics; provided, that it does not involve a change —
 - (i) In deliverable end item quantities only;
 - (ii) In research and development (R&D) end items or R&D test quantities that is due solely to results of previous testing under this contract; or
 - (iii) To the contract type only.
- (c) VECP preparation. As a minimum, the Contractor shall include in each VECP the information described in subparagraphs (c)(1) through (8) below. If the proposed change is affected by contractually required configuration management or similar procedures, the instructions in those procedures relating to format, identification, and priority assignment shall govern VECP preparation. The VECP shall include the following:
- (1) A description of the difference between the existing contract requirement and the proposed requirement, the comparative advantages and disadvantages of each, a justification when an item’s function or characteristics are being altered, the effect of the change on the end item’s performance, and any pertinent objective test data.
 - (2) A list and analysis of the contract requirements that must be changed if the VECP is accepted, including any suggested specification revisions.
 - (3) Identification of the unit to which the VECP applies.
 - (4) A separate, detailed cost estimate for
 - (i) the affected portions of the existing contract requirement and
 - (ii) the VECP. The cost reduction associated with the VECP shall take into account the Contractor’s allowable development and implementation costs, including any amount attributable to subcontracts under the Subcontracts paragraph of this clause, below.
 - (5) A description and estimate of costs the Government may incur in implementing the VECP, such as test and evaluation and operating and support costs.
 - (6) A prediction of any effects the proposed change would have on collateral costs to the agency.
 - (7) A statement of the time by which a contract modification accepting the VECP must be issued in order to achieve the maximum cost reduction, noting any effect on the contract completion time or delivery schedule.
 - (8) Identification of any previous submissions of the VECP, including the dates submitted, the agencies and contract numbers involved, and previous Government actions, if known.

- (d) Submission. The Contractor shall submit VECP's to the Contracting Officer, unless this contract states otherwise. If this contract is administered by other than the contracting office, the Contractor shall submit a copy of the VECP simultaneously to the Contracting Officer and to the Administrative Contracting Officer.
- (e) Government action.
- (1) The Contracting Officer will notify the Contractor of the status of the VECP within 45 calendar days after the contracting office receives it. If additional time is required, the Contracting Officer will notify the Contractor within the 45-day period and provide the reason for the delay and the expected date of the decision. The Government will process VECP's expeditiously; however, it will not be liable for any delay in acting upon a VECP.
 - (2) If the VECP is not accepted, the Contracting Officer will notify the Contractor in writing, explaining the reasons for rejection. The Contractor may withdraw any VECP, in whole or in part, at any time before it is accepted by the Government. The Contracting Officer may require that the Contractor provide written notification before undertaking significant expenditures for VECP effort.
 - (3) Any VECP may be accepted, in whole or in part, by the Contracting Officer's award of a modification to this contract citing this clause and made either before or within a reasonable time after contract performance is completed. Until such a contract modification applies a VECP to this contract, the Contractor shall perform in accordance with the existing contract. The decision to accept or reject all or part of any VECP is a unilateral decision made solely at the discretion of the Contracting Officer.
- (f) Sharing rates. If a VECP is accepted, the Contractor shall share in net acquisition savings according to the percentages shown in the table below. The percentage paid the Contractor depends upon –
- (1) This contract's type (fixed-price, incentive, or cost-reimbursement);
 - (2) The sharing arrangement specified in paragraph (a) above (incentive, program requirement, or a combination as delineated in the Schedule); and
 - (3) The source of the savings (the instant contract, or concurrent and future contracts), as follows:

CONTRACTOR'S SHARE OF NET ACQUISITION SAVINGS
(Figures in percent)

Contract Type	Incentive (Voluntary)		Program Requirement (Mandatory)	
	Instant Contract Rate	Concurrent and Future Contract Rate	Instant Contract Rate	Concurrent and Future Contract Rate
Fixed-price (includes fixed-price-award-fee; excludes other fixed-price incentive)	* 50	* 50	* 25	25

contracts)				
Incentive (fixed-price or cost) (other than award fee)	(**)	* 50	(**)	25
Cost-reimbursement (includes cost-plus-award-fee; excludes other cost-type incentive Contracts)	*** 25	*** 25	15	15

*The Contracting Officer may increase the Contractor's sharing rate to as high as 75 percent for each VECP.

**Same sharing arrangement as the contract's profit or fee adjustment formula.

***The Contracting Officer may increase the Contractor's sharing rate to as high as 50 percent for each VECP.

(g) Calculating net acquisition savings.

- (1) Acquisition savings are realized when
 - (i) the cost or price is reduced on the instant contract,
 - (ii) reductions are negotiated in concurrent contracts,
 - (iii) future contracts are awarded, or
 - (iv) agreement is reached on a lump-sum payment for future contract savings (see subparagraph (i)(4) below).

Net acquisition savings are first realized, and the Contractor shall be paid a share, when Government costs and any negative instant contract savings have been fully offset against acquisition savings.
- (2) Except in incentive contracts, Government costs and any price or cost increases resulting from negative instant contract savings shall be offset against acquisition savings each time such savings are realized until they are fully offset. Then, the Contractor's share is calculated by multiplying net acquisition savings by the appropriate Contractor's percentage sharing rate (see paragraph (f) above). Additional Contractor shares of net acquisition savings shall be paid to the Contractor at the time realized.
- (3) If this is an incentive contract, recovery of Government costs on the instant contract shall be deferred and offset against concurrent and future contract savings. The Contractor shall share through the contract incentive structure in savings on the instant contract items affected. Any negative instant contract savings shall be added to the target cost or to the target price and ceiling price, and the amount shall be offset against concurrent and future contract savings.
- (4) If the Government does not receive and accept all items on which it paid the Contractor's share, the Contractor shall reimburse the Government for the proportionate share of these payments.

(h) Contract adjustment. The modification accepting the VECP (or a subsequent modification issued as soon as possible after any negotiations are completed) shall —

- (1) Reduce the contract price or estimated cost by the amount of instant contract savings, unless this is an incentive contract;
- (2) When the amount of instant contract savings is negative, increase the contract price,

target price and ceiling price, target cost, or estimated cost by that amount;

- (3) Specify the Contractor's dollar share per unit on future contracts, or provide the lump-sum payment;
 - (4) Specify the amount of any Government costs or negative instant contract savings to be offset in determining net acquisition savings realized from concurrent or future contract savings; and
 - (5) Provide the Contractor's share of any net acquisition savings under the instant contract in accordance with the following:
 - (i) Fixed-price contracts — add to contract price.
 - (ii) Cost-reimbursement contracts — add to contract fee.
- (i) Concurrent and future contract savings.
- (1) Payments of the Contractor's share of concurrent and future contract savings shall be made by a modification to the instant contract in accordance with subparagraph (h)(5) above. For incentive contracts, shares shall be added as a separate firm-fixed-price line item on the instant contract. The Contractor shall maintain records adequate to identify the first delivered unit for 3 years after final payment under this contract.
 - (2) The Contracting Officer shall calculate the Contractor's share of concurrent contract savings by —
 - (i) Subtracting from the reduction in price negotiated on the concurrent contract any Government costs or negative instant contract savings not yet offset; and
 - (ii) Multiplying the result by the Contractor's sharing rate.
 - (3) The Contracting Officer shall calculate the Contractor's share of future contract savings by —
 - (i) Multiplying the future unit cost reduction by the number of future contract units scheduled for delivery during the sharing period;
 - (ii) Subtracting any Government costs or negative instant contract savings not yet offset; and
 - (iii) Multiplying the result by the Contractor's sharing rate.
 - (4) When the Government wishes and the Contractor agrees, the Contractor's share of future contract savings may be paid in a single lump sum rather than in a series of payments over time as future contracts are awarded. Under this alternate procedure, the future contract savings may be calculated when the VECP is accepted, on the basis of the Contracting Officer's forecast of the number of units that will be delivered during the sharing period. The Contractor's share shall be included in a modification to this contract (see subparagraph (h)(3) above) and shall not be subject to subsequent adjustment.
 - (5) Alternate no-cost settlement method. When, in accordance with subsection 48.104-4 of the Federal Acquisition Regulation, the Government and the Contractor mutually agree to use the no-cost settlement method, the following applies:
 - (i) The Contractor will keep all the savings on the instant contract and on its concurrent contracts only.
 - (ii) The Government will keep all the savings resulting from concurrent contracts placed on other sources, savings from all future contracts, and all collateral savings.

- (j) Collateral savings. If a VECP is accepted, the Contracting Officer will increase the instant contract amount as specified in paragraph (h)(5) of this clause, by a rate from 20 to 100 percent, as determined by the Contracting Officer, of any projected collateral savings determined to be realized in a typical year of use after subtracting any Government costs not previously offset. However, the Contractor's share of collateral savings will not exceed the contract's firm-fixed-price, target price, target cost, or estimated cost, at the time the VECP is accepted, or \$100,000, whichever is greater. The Contracting Officer will be the sole determiner of the amount of collateral savings.
- (k) Relationship to other incentives. Only those benefits of an accepted VECP not rewardable under performance, design-to-cost (production unit cost, operating and support costs, reliability and maintainability), or similar incentives shall be rewarded under this clause. However, the targets of such incentives affected by the VECP shall not be adjusted because of VECP acceptance. If this contract specifies targets but provides no incentive to surpass them, the value engineering sharing shall apply only to the amount of achievement better than target.
- (l) Subcontracts. The Contractor shall include an appropriate value engineering clause in any subcontract of \$100,000 or more and may include one in subcontracts of lesser value. In calculating any adjustment in this contract's price for instant contract savings (or negative instant contract savings), the Contractor's allowable development and implementation costs shall include any subcontractor's allowable development and implementation costs, and any value engineering incentive payments to a subcontractor, clearly resulting from a VECP accepted by the Government under this contract. The Contractor may choose any arrangement for subcontractor value engineering incentive payments; provided, that the payments shall not reduce the Government's share of concurrent or future contract savings or collateral savings.
- (m) Data. The Contractor may restrict the Government's right to use any part of a VECP or the supporting data by marking the following legend on the affected parts:

These data, furnished under the Value Engineering clause of contract _____, shall not be disclosed outside the Government or duplicated, used, or disclosed, in whole or in part, for any purpose other than to evaluate a value engineering change proposal submitted under the clause. This restriction does not limit the Government's right to use information contained in these data if it has been obtained or is otherwise available from the Contractor or from another source without limitations.

If a VECP is accepted, the Contractor hereby grants the Government unlimited rights in the VECP and supporting data, except that, with respect to data qualifying and submitted as limited rights technical data, the Government shall have the rights specified in the contract modification implementing the VECP and shall appropriately mark the data. (The terms "unlimited rights" and "limited rights" are defined in Part 27 of the Federal Acquisition Regulation.)

I.92 52.249-14 Excusable Delays (APR 1984)

- (a) Except for defaults of subcontractors at any tier, the Contractor shall not be in default because of any failure to perform this contract under its terms if the failure arises from causes beyond the control and without the fault or negligence of the Contractor. Examples of these causes are

- (1) acts of God or of the public enemy,
 - (2) acts of the Government in either its sovereign or contractual capacity,
 - (3) fires,
 - (4) floods,
 - (5) epidemics,
 - (6) quarantine restrictions,
 - (7) strikes,
 - (8) freight embargoes, and
 - (9) unusually severe weather. In each instance, the failure to perform must be beyond the control and without the fault or negligence of the Contractor. "Default" includes failure to make progress in the work so as to endanger performance.
- (b) If the failure to perform is caused by the failure of a subcontractor at any tier to perform or make progress, and if the cause of the failure was beyond the control of both the Contractor and subcontractor, and without the fault or negligence of either, the Contractor shall not be deemed to be in default, unless -
- (1) The subcontracted supplies or services were obtainable from other sources;
 - (2) The Contracting Officer ordered the Contractor in writing to purchase these supplies or services from the other source; and
 - (3) The Contractor failed to comply reasonably with this order.
- (c) Upon request of the Contractor, the Contracting Officer shall ascertain the facts and extent of the failure. If the Contracting Officer determines that any failure to perform results from one or more of the causes above, the delivery schedule shall be revised, subject to the rights of the Government under the termination clause of this contract.

I.93 52.249-6 Termination (Cost-Reimbursement) (MAY 2004)

- (a) The Government may terminate performance of work under this contract in whole or, from time to time, in part, if -
- (1) The Contracting Officer determines that a termination is in the Government's interest; or
 - (2) The Contractor defaults in performing this contract and fails to cure the default within 10 days (unless extended by the Contracting Officer) after receiving a notice specifying the default. "Default" includes failure to make progress in the work so as to endanger performance.
- (b) The Contracting Officer shall terminate by delivering to the Contractor a Notice of Termination specifying whether termination is for default of the Contractor or for convenience of the Government, the extent of termination, and the effective date. If, after termination for default, it

- is determined that the Contractor was not in default or that the Contractor's failure to perform or to make progress in performance is due to causes beyond the control and without the fault or negligence of the Contractor as set forth in the Excusable Delays clause, the rights and obligations of the parties will be the same as if the termination was for the convenience of the Government.
- (c) After receipt of a Notice of Termination, and except as directed by the Contracting Officer, the Contractor shall immediately proceed with the following obligations, regardless of any delay in determining or adjusting any amounts due under this clause:
- (1) Stop work as specified in the notice.
 - (2) Place no further subcontracts or orders (referred to as subcontracts in this clause), except as necessary to complete the continued portion of the contract.
 - (3) Terminate all subcontracts to the extent they relate to the work terminated.
 - (4) Assign to the Government, as directed by the Contracting Officer, all right, title, and interest of the Contractor under the subcontracts terminated, in which case the Government shall have the right to settle or to pay any termination settlement proposal arising out of those terminations.
 - (5) With approval or ratification to the extent required by the Contracting Officer, settle all outstanding liabilities and termination settlement proposals arising from the termination of subcontracts, the cost of which would be reimbursable in whole or in part, under this contract; approval or ratification will be final for purposes of this clause.
 - (6) Transfer title (if not already transferred) and, as directed by the Contracting Officer, deliver to the Government -
 - (i) The fabricated or unfabricated parts, work in process, completed work, supplies, and other material produced or acquired for the work terminated;
 - (ii) The completed or partially completed plans, drawings, information, and other property that, if the contract had been completed, would be required to be furnished to the Government; and
 - (iii) The jigs, dies, fixtures, and other special tools and tooling acquired or manufactured for this contract, the cost of which the Contractor has been or will be reimbursed under this contract.
 - (7) Complete performance of the work not terminated.
 - (8) Take any action that may be necessary, or that the Contracting Officer may direct, for the protection and preservation of the property related to this contract that is in the possession of the Contractor and in which the Government has or may acquire an interest.
 - (9) Use its best efforts to sell, as directed or authorized by the Contracting Officer, any property of the types referred to in subparagraph (c)(6) of this clause; provided, however, that the Contractor
 - (i) is not required to extend credit to any purchaser and
 - (ii) may acquire the property under the conditions prescribed by, and at prices approved by, the Contracting Officer. The proceeds of any transfer or disposition

will be applied to reduce any payments to be made by the Government under this contract, credited to the price or cost of the work, or paid in any other manner directed by the Contracting Officer.

- (d) The Contractor shall submit complete termination inventory schedules no later than 120 days from the effective date of termination, unless extended in writing by the Contracting Officer upon written request of the Contractor within this 120-day period.
- (e) After expiration of the plant clearance period as defined in Subpart 49.001 of the Federal Acquisition Regulation, the Contractor may submit to the Contracting Officer a list, certified as to quantity and quality, of termination inventory not previously disposed of, excluding items authorized for disposition by the Contracting Officer. The Contractor may request the Government to remove those items or enter into an agreement for their storage. Within 15 days, the Government will accept the items and remove them or enter into a storage agreement. The Contracting Officer may verify the list upon removal of the items, or if stored, within 45 days from submission of the list, and shall correct the list, as necessary, before final settlement.
- (f) After termination, the Contractor shall submit a final termination settlement proposal to the Contracting Officer in the form and with the certification prescribed by the Contracting Officer. The Contractor shall submit the proposal promptly, but no later than 1 year from the effective date of termination, unless extended in writing by the Contracting Officer upon written request of the Contractor within this 1-year period. However, if the Contracting Officer determines that the facts justify it, a termination settlement proposal may be received and acted on after 1 year or any extension. If the Contractor fails to submit the proposal within the time allowed, the Contracting Officer may determine, on the basis of information available, the amount, if any, due the Contractor because of the termination and shall pay the amount determined.
- (g) Subject to paragraph (f) of this clause, the Contractor and the Contracting Officer may agree on the whole or any part of the amount to be paid (including an allowance for fee) because of the termination. The contract shall be amended, and the Contractor paid the agreed amount.
- (h) If the Contractor and the Contracting Officer fail to agree in whole or in part on the amount of costs and/or fee to be paid because of the termination of work, the Contracting Officer shall determine, on the basis of information available, the amount, if any, due the Contractor, and shall pay that amount, which shall include the following:
 - (1) All costs reimbursable under this contract, not previously paid, for the performance of this contract before the effective date of the termination, and those costs that may continue for a reasonable time with the approval of or as directed by the Contracting Officer; however, the Contractor shall discontinue those costs as rapidly as practicable.
 - (2) The cost of settling and paying termination settlement proposals under terminated subcontracts that are properly chargeable to the terminated portion of the contract if not included in subparagraph (h)(1) of this clause.
 - (3) The reasonable costs of settlement of the work terminated, including -
 - (i) Accounting, legal, clerical, and other expenses reasonably necessary for the preparation of termination settlement proposals and supporting data;
 - (ii) The termination and settlement of subcontracts (excluding the amounts of such settlements); and

- (iii) Storage, transportation, and other costs incurred, reasonably necessary for the preservation, protection, or disposition of the termination inventory. If the termination is for default, no amounts for the preparation of the Contractor's termination settlement proposal may be included.
- (4) A portion of the fee payable under the contract, determined as follows:
 - (i) If the contract is terminated for the convenience of the Government, the settlement shall include a percentage of the fee equal to the percentage of completion of work contemplated under the contract, but excluding subcontract effort included in subcontractors' termination proposals, less previous payments for fee.
 - (ii) If the contract is terminated for default, the total fee payable shall be such proportionate part of the fee as the total number of articles (or amount of services) delivered to and accepted by the Government is to the total number of articles (or amount of services) of a like kind required by the contract.
- (5) If the settlement includes only fee, it will be determined under subparagraph (h)(4) of this clause.
- (i) The cost principles and procedures in Part 31 of the Federal Acquisition Regulation, in effect on the date of this contract, shall govern all costs claimed, agreed to, or determined under this clause.
- (j) The Contractor shall have the right of appeal, under the Disputes clause, from any determination made by the Contracting Officer under paragraph (f), (h), or (l) of this clause, except that if the Contractor failed to submit the termination settlement proposal within the time provided in paragraph (f) and failed to request a time extension, there is no right of appeal. If the Contracting Officer has made a determination of the amount due under paragraph (f), (h) or (l) of this clause, the Government shall pay the Contractor -
 - (1) The amount determined by the Contracting Officer if there is no right of appeal or if no timely appeal has been taken; or
 - (2) The amount finally determined on an appeal.
- (k) In arriving at the amount due the Contractor under this clause, there shall be deducted -
 - (1) All unliquidated advance or other payments to the Contractor, under the terminated portion of this contract;
 - (2) Any claim which the Government has against the Contractor under this contract; and
 - (3) The agreed price for, or the proceeds of sale of materials, supplies, or other things acquired by the Contractor or sold under this clause and not recovered by or credited to the Government.
- (l) The Contractor and Contracting Officer must agree to any equitable adjustment in fee for the continued portion of the contract when there is a partial termination. The Contracting Officer shall amend the contract to reflect the agreement.
- (m) (1) The Government may, under the terms and conditions it prescribes, make partial payments and payments against costs incurred by the Contractor for the terminated

portion of the contract, if the Contracting Officer believes the total of these payments will not exceed the amount to which the Contractor will be entitled.

- (2) If the total payments exceed the amount finally determined to be due, the Contractor shall repay the excess to the Government upon demand, together with interest computed at the rate established by the Secretary of the Treasury under 50 U.S.C. App. 1215(b)(2). Interest shall be computed for the period from the date the excess payment is received by the Contractor to the date the excess is repaid. Interest shall not be charged on any excess payment due to a reduction in the Contractor's termination settlement proposal because of retention or other disposition of termination inventory until 10 days after the date of the retention or disposition, or a later date determined by the Contracting Officer because of the circumstances.

- (n) The provisions of this clause relating to fee are inapplicable if this contract does not include a fee.

I.94 52.251-1 Government Supply Sources (APR 1984)

The Contracting Officer may issue the Contractor an authorization to use Government supply sources in the performance of this contract. Title to all property acquired by the Contractor under such an authorization shall vest in the Government unless otherwise specified in the contract. Such property shall not be considered to be "Government-furnished property," as distinguished from "Government property." The provisions of the clause entitled "Government Property," except its paragraphs (a) and (b), shall apply to all property acquired under such authorization.

I.95 52.253-1 Computer Generated Forms (JAN 1991)

- (a) Any data required to be submitted on a Standard or Optional Form prescribed by the Federal Acquisition Regulation (FAR) may be submitted on a computer generated version of the form, provided there is no change to the name, content, or sequence of the data elements on the form, and provided the form carries the Standard or Optional Form number and edition date.
- (b) Unless prohibited by agency regulations, any data required to be submitted on an agency unique form prescribed by an agency supplement to the FAR may be submitted on a computer generated version of the form provided there is no change to the name, content, or sequence of the data elements on the form and provided the form carries the agency form number and edition date.
- (c) If the Contractor submits a computer generated version of a form that is different than the required form, then the rights and obligations of the parties will be determined based on the content of the required form.

I.96 952.203-70 Whistleblower Protection for Contractor Employees (DEC 2000)

- (a) The contractor shall comply with the requirements of "DOE Contractor Employee Protection Program" at 10 CFR part 708 for work performed on behalf of DOE directly related to activities at DOE-owned or-leased sites.
- (b) The contractor shall insert or have inserted the substance of this clause, including this paragraph (b), in subcontracts at all tiers, for subcontracts involving work performed on behalf of DOE directly related to activities at DOE-owned or leased sites.

I.97 952.204-2 Security (MAY 2002)

- (a) Responsibility. It is the contractor's duty to safeguard all classified information, special nuclear material, and other DOE property. The contractor shall, in accordance with DOE security regulations and requirements, be responsible for safeguarding all classified information and protecting against sabotage, espionage, loss or theft of the classified documents and material in the contractor's possession in connection with the performance of work under this contract. Except as otherwise expressly provided in this contract, the contractor shall, upon completion or termination of this contract, transmit to DOE any classified matter in the possession of the contractor or any person under the contractor's control in connection with performance of this contract. If retention by the contractor of any classified matter is required after the completion or termination of the contract, the contractor shall identify the items and types or categories of matter proposed for retention, the reasons for the retention of the matter, and the proposed period of retention. If the retention is approved by the contracting officer, the security provisions of the contract shall continue to be applicable to the matter retained. Special nuclear material shall not be retained after the completion or termination of the contract.
- (b) Regulations. The contractor agrees to comply with all security regulations and requirements of DOE in effect on the date of award.
- (c) Definition of classified information. The term "classified information" means Restricted Data, Formerly Restricted Data, or National Security Information.
- (d) Definition of restricted data. The term "Restricted Data" means all data concerning
 - (1) design, manufacture, or utilization of atomic weapons;
 - (2) the production of special nuclear material; or
 - (3) the use of special nuclear material in the production of energy, but shall not include data declassified or removed from the Restricted Data category pursuant to Section 142 of the Atomic Energy Act of 1954, as amended.
- (e) Definition of formerly restricted data. The term "Formerly Restricted Data" means all data removed from the Restricted Data category under section 142 d. of the Atomic Energy Act of 1954, as amended.
- (f) Definition of National Security Information. The term "National Security Information" means any information or material, regardless of its physical form or characteristics, that is owned by, produced for or by, or is under the control of the United States Government, that has been determined pursuant to Executive Order 12356 or prior Orders to require protection against unauthorized disclosure, and which is so designated.
- (g) Definition of Special Nuclear Material (SNM). SNM means: (1) plutonium, uranium enriched in the isotope 233 or in the isotope 235, and any other material which pursuant to the provisions of Section 51 of the Atomic Energy Act of 1954, as amended, has been determined to be special nuclear material, but does not include source material; or (2) any material artificially enriched by any of the foregoing, but does not include source material.
- (h) Security clearance of personnel. The contractor shall not permit any individual to have access to any classified information, except in accordance with the Atomic Energy Act of 1954, as

- amended, Executive Order 12356, and the DOE's regulations or requirements applicable to the particular level and category of classified information to which access is required.
- (i) Criminal liability. It is understood that disclosure of any classified information relating to the work or services ordered hereunder to any person not entitled to receive it, or failure to safeguard any classified information that may come to the contractor or any person under the contractor's control in connection with work under this contract, may subject the contractor, its agents, employees, or subcontractors to criminal liability under the laws of the United States. (See the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2011 et seq.; 18 U.S.C. 793 and 794; and E.O. 12356.)
 - (j) Foreign Ownership, Control, or Influence.
 - (1) The Contractor shall immediately provide the cognizant security office written notice of any change in the extent and nature of foreign ownership, control or influence over the Contractor which would affect any answer to the questions presented in the Certificate Pertaining to Foreign Interests, Standard Form 328 or the Foreign Ownership, Control or Influence questionnaire executed by the Contractor prior to the award of this contract. In addition, any notice of changes in ownership or control which are required to be reported to the Securities and Exchange Commission, the Federal Trade Commission, or the Department of Justice shall also be furnished concurrently to the Contracting Officer.
 - (2) If a Contractor has changes involving foreign ownership, control or influence, DOE must determine whether the changes will pose an undue risk to the common defense and security. In making this determination, DOE will consider proposals made by the Contractor to avoid or mitigate foreign influences.
 - (3) If the cognizant security office at any time determines that the Contractor is, or is potentially, subject to foreign ownership, control or influence, the Contractor shall comply with such instructions as the Contracting Officer shall provide in writing to safeguard any classified information or special nuclear material.
 - (4) The Contractor agrees to insert terms that conform substantially to the language of this clause, including this paragraph, in all subcontracts under this contract that will require subcontractor employees to possess access authorizations. Additionally, the Contractor must require subcontractors to have an existing DOD or DOE Facility Clearance or submit a completed Certificate Pertaining to Foreign Interests, Standard Form 328, required in DEAR 952.204-73 prior to award of a subcontract. Information to be provided by a subcontractor pursuant to this clause may be submitted directly to the Contracting Officer. For purposes of this clause, subcontractor means any subcontractor at any tier and the term "Contracting Officer" means the DOE Contracting the Officer. When this clause is included in a subcontract, the term "Contractor" shall mean Subcontractor and the term "contract" shall mean subcontract.
 - (5) The Contracting Officer may terminate this contract for default either if the Contractor fails to meet obligations imposed by this clause or if the Contractor creates a FOCI situation in order to avoid performance or a termination for default. The Contracting Officer may terminate this contract for convenience if the Contractor becomes subject to FOCI and for reasons other than avoidance of performance of the contract, cannot, or chooses not to, avoid or mitigate FOCI problem.

I.98 952.204-70 Classification/Declassification (SEP 1997)

In the performance of work under this contract, the contractor or subcontractor shall comply with all provisions of the Department of Energy's regulations and mandatory DOE directives which apply to work involving the classification and declassification of information, documents, or material. In this section, "information" means facts, data, or knowledge itself; "document" means the physical medium on or in which information is recorded; and "material" means a product or substance which contains or reveals information, regardless of its physical form or characteristics. Classified information is "Restricted Data" and "Formerly Restricted Data" (classified under the Atomic Energy Act of 1954, as amended) and "National Security Information" (classified under Executive Order 12958 or prior Executive Orders). The original decision to classify or declassify information is considered an inherently Governmental function. For this reason, only Government personnel may serve as original classifiers, i.e., Federal Government Original Classifiers. Other personnel (Government or contractor) may serve as derivative classifiers which involves making classification decisions based upon classification guidance which reflect decisions made by Federal Government Original Classifiers.

The contractor or subcontractor shall ensure that any document or material that may contain classified information is reviewed by either a Federal Government or a Contractor Derivative Classifier in accordance with classification regulations including mandatory DOE directives and classification/declassification guidance furnished to the contractor by the Department of Energy to determine whether it contains classified information prior to dissemination. For information which is not addressed in classification/declassification guidance, but whose sensitivity appears to warrant classification, the contractor or subcontractor shall ensure that such information is reviewed by a Federal Government Original Classifier.

In addition, the contractor or subcontractor shall ensure that existing classified documents (containing either Restricted Data or Formerly Restricted Data or National Security Information) which are in its possession or under its control are periodically reviewed by a Federal Government or Contractor Derivative Declassifier in accordance with classification regulations, mandatory DOE directives and classification/declassification guidance furnished to the contractor by the Department of Energy to determine if the documents are no longer appropriately classified. Priorities for declassification review of classified documents shall be based on the degree of public and researcher interest and the likelihood of declassification upon review. Documents which no longer contain classified information are to be declassified. Declassified documents then shall be reviewed to determine if they are publicly releasable. Documents which are declassified and determined to be publicly releasable are to be made available to the public in order to maximize the public's access to as much Government information as possible while minimizing security costs.

The contractor or subcontractor shall insert this clause in any subcontract which involves or may involve access to classified information.

I.99 952.204-75 Public Affairs (DEC 2000)

- (a) The Contractor must cooperate with the Department in releasing unclassified information to the public and news media regarding DOE policies, programs, and activities relating to its effort under the contract. The responsibilities under this clause must be accomplished through coordination with the Contracting Officer and appropriate DOE public affairs personnel in accordance with procedures defined by the Contracting Officer.
- (b) The Contractor is responsible for the development, planning, and coordination of proactive approaches for the timely dissemination of unclassified information regarding DOE activities onsite and offsite, including, but not limited to, operations and programs. Proactive public affairs programs may utilize a variety of communication media, including public workshops,

- meetings or hearings, open houses, newsletters, press releases, conferences, audio/visual presentations, speeches, forums, tours, and other appropriate stakeholder interactions.
- (c) The Contractor's internal procedures must ensure that all releases of information to the public and news media are coordinated through, and approved by, a management official at an appropriate level within the Contractor's organization.
 - (d) The Contractor must comply with DOE procedures for obtaining advance clearances on oral, written, and audio/visual informational material prepared for public dissemination or use.
 - (e) Unless prohibited by law, and in accordance with procedures defined by the Contracting Officer, the Contractor must notify the Contracting Officer and appropriate DOE public affairs personnel of communications or contacts with Members of Congress relating to the effort performed under the contract.
 - (f) In accordance with procedures defined by the Contracting Officer, the Contractor must notify the Contracting Officer and appropriate DOE public affairs personnel of activities or situations that may attract regional or national news media attention and of non-routine inquiries from national news media relating to the effort performed under the contract.
 - (g) In releases of information to the public and news media, the Contractor must fully and accurately identify the Contractor's relationship to the Department and fully and accurately credit the Department for its role in funding programs and projects resulting in scientific, technical, and other achievements.

I.100 952.204-77 Computer Security (AUG 2006)

- (a) Definitions.
 - (1) Computer means desktop computers, portable computers, computer networks (including the DOE Network and local area networks at or controlled by DOE organizations), network devices, automated information systems, and or other related computer equipment owned by, leased, or operated on behalf of the DOE.
 - (2) Individual means a DOE contractor or subcontractor employee, or any other person who has been granted access to a DOE computer or to information on a DOE computer, and does not include a member of the public who sends an e-mail message to a DOE computer or who obtains information available to the public on DOE Web sites.
- (b) Access to DOE computers. A contractor shall not allow an individual to have access to information on a DOE computer unless:
 - (1) The individual has acknowledged in writing that the individual has no expectation of privacy in the use of a DOE computer; and,
 - (2) The individual has consented in writing to permit access by an authorized investigative agency to any DOE computer used during the period of that individual's access to information on a DOE computer, and for a period of three years thereafter.

- (c) No expectation of privacy. Notwithstanding any other provision of law (including any provision of law enacted by the Electronic Communications Privacy Act of 1986), no individual using a DOE computer shall have any expectation of privacy in the use of that computer.
- (d) Written records. The contractor is responsible for maintaining written records for itself and subcontractors demonstrating compliance with the provisions of paragraph (b) of this section. The contractor agrees to provide access to these records to the DOE, or its authorized agents, upon request.
- (e) Subcontracts. The contractor shall insert this clause, including this paragraph (e), in subcontracts under this contract that may provide access to computers owned, leased or operated on behalf of the DOE.

I.101 952.208-7 Tagging of Leased Vehicles (APR 1984)

- (a) DOE intends to use U.S. Government license tags.
- (b) While it is the intention that vehicles leased hereunder shall operate on Federal tags, the DOE reserves the right to utilize State tags if necessary to accomplish its mission. Should State tags be required, the contractor shall furnish the DOE the documentation required by the State to acquire such tags.

I.102 952.208-70 Printing (APR 1984)

- (a) The contractor shall not engage in, nor subcontract for, any printing (as that term is defined in Title I of the U.S. Government Printing and Binding Regulations in effect on the effective date of this contract) in connection with the performance of work under this contract. Provided, however, that performance of a requirement under this contract involving the duplication of less than 5,000 copies of a single unit, or no more than 25,000 units in the aggregate of multiple units, will not be deemed to be printing. A unit is defined as one sheet, size 8 1/2 by 11 inches one side only, one color. A requirement is defined as a single publication document.
 - (1) The term "printing" includes the following processes: composition, plate making, presswork, binding, microform publishing, or the end items produced by such processes.
 - (2) If fulfillment of the contract will necessitate reproduction in excess of the limits set forth above, the contractor shall notify the contracting officer in writing and obtain the contracting officer's approval prior to acquiring on DOE's behalf production, acquisition, and dissemination of printed matter. Such printing must be obtained from the Government Printing Office (GPO), a contract source designated by GPO or a Joint Committee on Printing authorized federal printing plant.
 - (3) Printing services not obtained in compliance with this guidance will result in the cost of such printing being disallowed.
 - (4) The Contractor will include in each of his subcontracts hereunder a provision substantially the same as this clause including this paragraph (4).

I.103 952.209-72 Organizational Conflicts of Interest (JUN 1997) (Alternate I)

- (a) Purpose. The purpose of this clause is to ensure that the contractor (1) is not biased because of its financial, contractual, organizational, or other interests which relate to the work under this contract, and (2) does not obtain any unfair competitive advantage over other parties by virtue of its performance of this contract.
- (b) Scope. The restrictions described herein shall apply to performance or participation by the contractor and any of its affiliates or their successors in interest (hereinafter collectively referred to as "contractor") in the activities covered by this clause as a prime contractor, subcontractor, cosponsor, joint venturer, consultant, or in any similar capacity. For the purpose of this clause, affiliation occurs when a business concern is controlled by or has the power to control another or when a third party has the power to control both.
 - (1) Use of Contractor's Work Product.
 - (i) The contractor shall be ineligible to participate in any capacity in Department contracts, subcontracts, or proposals therefor (solicited and unsolicited) which stem directly from the contractor's performance of work under this contract for a period of (Contracting Officer see DEAR 9.507-2 and enter specific term) years after the completion of this contract. Furthermore, unless so directed in writing by the contracting officer, the Contractor shall not perform any advisory and assistance services work under this contract on any of its products or services or the products or services of another firm if the contractor is or has been substantially involved in their development or marketing. Nothing in this subparagraph shall preclude the contractor from competing for follow-on contracts for advisory and assistance services.
 - (ii) If, under this contract, the contractor prepares a complete or essentially complete statement of work or specifications to be used in competitive acquisitions, the contractor shall be ineligible to perform or participate in any capacity in any contractual effort which is based on such statement of work or specifications. The contractor shall not incorporate its products or services in such statement of work or specifications unless so directed in writing by the contracting officer, in which case the restriction in this subparagraph shall not apply.
 - (iii) Nothing in this paragraph shall preclude the contractor from offering or selling its standard and commercial items to the Government.
 - (2) Access to and use of information.
 - (i) If the contractor, in the performance of this contract, obtains access to information, such as Department plans, policies, reports, studies, financial plans, internal data protected by the Privacy Act of 1974 (5 U.S.C. 552a), or data which has not been released or otherwise made available to the public, the contractor agrees that without prior written approval of the contracting officer it shall not:
 - (A) use such information for any private purpose unless the information has been released or otherwise made available to the public;
 - (B) compete for work for the Department based on such information for a period of six (6) months after either the completion of this contract or until such information is released or otherwise made available to the public, whichever is first;
 - (C) submit an unsolicited proposal to the Government which is based on such information until one year after such information is released or otherwise made available to the public; and
 - (D) release such information unless such information has previously been released or otherwise made available to the public by the Department.

- (ii) In addition, the contractor agrees that to the extent it receives or is given access to proprietary data, data protected by the Privacy Act of 1974 (5 U.S.C. 552a), or other confidential or privileged technical, business, or financial information under this contract, it shall treat such information in accordance with any restrictions imposed on such information.
 - (iii) The contractor may use technical data it first produces under this contract for its private purposes consistent with paragraphs (b)(2)(i) (A) and (D) of this clause and the patent, rights in data, and security provisions of this contract.
- (c) Disclosure after award.
 - (1) The contractor agrees that, if changes, including additions, to the facts disclosed by it prior to award of this contract, occur during the performance of this contract, it shall make an immediate and full disclosure of such changes in writing to the contracting officer. Such disclosure may include a description of any action which the contractor has taken or proposes to take to avoid, neutralize, or mitigate any resulting conflict of interest. The Department may, however, terminate the contract for convenience if it deems such termination to be in the best interest of the Government.
 - (2) In the event that the contractor was aware of facts required to be disclosed or the existence of an actual or potential organizational conflict of interest and did not disclose such facts or such conflict of interest to the contracting officer, DOE may terminate this contract for default.
- (d) Remedies. For breach of any of the above restrictions or for nondisclosure or misrepresentation of any facts required to be disclosed concerning this contract, including the existence of an actual or potential organizational conflict of interest at the time of or after award, the Government may terminate the contract for default, disqualify the contractor from subsequent related contractual efforts, and pursue such other remedies as may be permitted by law or this contract.
- (e) Waiver. Requests for waiver under this clause shall be directed in writing to the contracting officer and shall include a full description of the requested waiver and the reasons in support thereof. If it is determined to be in the best interests of the Government, the contracting officer may grant such a waiver in writing.
- (f) Subcontracts. (1) The contractor shall include a clause, substantially similar to this clause, including this paragraph (f), in subcontracts expected to exceed the simplified acquisition threshold determined in accordance with FAR Part 13 and involving the performance of advisory and assistance services as that term is defined at FAR 37.201. The terms "contract," "contractor," and "contracting officer" shall be appropriately modified to preserve the Government's rights. (2) Prior to the award under this contract of any such subcontracts for advisory and assistance services, the contractor shall obtain from the proposed subcontractor or consultant the disclosure required by DEAR 909.507-1, and shall determine in writing whether the interests disclosed present an actual or significant potential for an organizational conflict of interest. Where an actual or significant potential organizational conflict of interest is identified, the contractor shall take actions to avoid, neutralize, or mitigate the organizational conflict to the satisfaction of the contractor. If the conflict cannot be avoided or neutralized, the contractor must obtain the approval of the DOE contracting officer prior to entering into the subcontract.

I.104 952.215-70 Key Personnel (DEC 2000)

- (a) The personnel listed below or elsewhere in this contract [Insert cross-reference, if applicable] are considered essential to the work being performed under this contract. Before removing, replacing, or diverting any of the listed or specified personnel, the Contractor must:
- (1) Notify the Contracting Officer reasonably in advance;
 - (2) submit justification (including proposed substitutions) in sufficient detail to permit evaluation of the impact on this contract; and
 - (3) obtain the Contracting Officer's written approval. Notwithstanding the foregoing, if the Contractor deems immediate removal or suspension of any member of its management team is necessary to fulfill its obligation to maintain satisfactory standards of employee competency, conduct, and integrity under the clause at 48 CFR 970.5203-3, Contractor's Organization, the Contractor may remove or suspend such person at once, although the Contractor must notify Contracting Officer prior to or concurrently with such action.
- (b) The list of personnel may, with the consent of the contracting parties, be amended from time to time during the course of the contract to add or delete personnel.

Name	Title
[REDACTED]	Project Manager
[REDACTED]	Business Manager
[REDACTED]	ESH&Q Manager
[REDACTED]	Waste Manager
[REDACTED]	Sludge Manager

I.105 952.217-70 Acquisition of Real Property (APR 1984)

- (a) Notwithstanding any other provision of the contract, the prior approval of the contracting officer shall be obtained when, in performance of this contract, the contractor acquires or proposes to acquire use of real property by:
- (1) Purchase, on the Government's behalf or in the contractor's own name, with title eventually vesting in the Government.
 - (2) Lease, and the Government assumes liability for, or will otherwise pay for the obligation under the lease as a reimbursable contract cost.
 - (3) Acquisition of temporary interest through easement, license or permit, and the Government funds the entire cost of the temporary interest.
- (b) Justification of and execution of any real property acquisitions shall be in accordance and compliance with directions provided by the contracting officer.
- (c) The substance of this clause, including this paragraph (c), shall be included in any subcontract occasioned by this contract under which property described in paragraph (a) of this clause shall be acquired.

I.106 952.223-75 Preservation of Individual Occupational Radiation Exposure Records (APR 1984)

Individual occupational radiation exposure records generated in the performance of work under

this contract shall be subject to inspection by DOE and shall be preserved by the contractor until disposal is authorized by DOE or at the option of the contractor delivered to DOE upon completion or termination of the contract. If the contractor exercises the foregoing option, title to such records shall vest in DOE upon delivery.

I.107 952.223-76 Conditional Payment of Fee or Profit – Safeguarding Restricted Data and Other Classified Information and Protection of Worker Safety and Health (JAN 2004)

(a) General.

- (1) The payment of fee or profit (i.e., award fee, fixed fee, and incentive fee or profit) under this contract is dependent upon the contractor's compliance with the terms and conditions of this contract relating to the safeguarding of Restricted Data and other classified information (i.e., Formerly Restricted Data and National Security Information) and relating to the protection of worker safety and health, including compliance with applicable law, regulation, and DOE directives. The term "contractor" as used in this clause to address failure to comply shall mean "contractor or contractor employee."
- (2) In addition to other remedies available to the Federal Government, if the contractor fails to comply with the terms and conditions of this contract relating to the safeguarding of Restricted Data and other classified information or relating to the protection of worker safety and health, the contracting officer may unilaterally reduce the amount of fee or profit that is otherwise payable to the contractor in accordance with the terms and conditions of this clause.
- (3) Any reduction in the amount of fee or profit earned by the contractor will be determined by the severity of the contractor's failure to comply with contract terms and conditions relating to the safeguarding of Restricted data or other classified information or relating to worker safety and health pursuant to the degrees specified in paragraphs (c) and (d) of this clause.

(b) Reduction Amount.

- (1) If in any period (see 48 CFR 952.223-76 (b)(2)) it is found that the contractor has failed to comply with contract terms and conditions relating to the safeguarding of Restricted Data or other classified information or relating to the protection of worker safety and health, the contractor's fee or profit of the period may be reduced. Such reduction shall not be less than 26% nor greater than 100% of the total fee or profit earned for a first degree performance failure, not less than 11% nor greater than 25% for a second degree performance failure, and up to 10% for a third degree performance failure. The contracting officer must consider mitigating factors that may warrant a reduction below the specified range (see 48 CFR 904.402(c) and 48 CFR 923.7001(b)). The mitigating factors include, but are not limited to, the following ((v), (vi), (vii), and (viii) apply to WS&H only):
 - (i) Degree of control the contractor had over the event or incident.
 - (ii) Efforts the contractor had made to anticipate and mitigate the possibility of the event in advance.
 - (iii) Contractor self-identification and response to the event to mitigate impacts and recurrence.
 - (iv) General status (trend and absolute performance) of: safeguarding Restricted Data and other classified information and compliance in related security areas; or of protecting WS&H and compliance in related areas.

- (v) Contractor demonstration to the Contracting Officer's satisfaction that the principles of industrial WS&H standards are routinely practiced (e.g., Voluntary Protection Program Star Status).
 - (vi) Event caused by "Good Samaritan" act by the contractor (e.g., offsite emergency response).
 - (vii) Contractor demonstration that a performance measurement system is routinely used to improve and maintain WS&H performance (including effective resource allocation) and to support DOE corporate decision-making (e.g., policy, WS&H programs).
 - (viii) Contractor demonstration that an Operating Experience and Feedback Program is functioning that demonstrably affects continuous improvement in WS&H by use of lessons-learned and best practices inter- and intra-DOE sites.
- (2) (i) Except in the case of performance-based, firm-fixed-price contracts (see paragraph (b)(3) of this clause), the contracting officer for purposes of this clause, will at the time of contract award, or as soon as practicable thereafter, allocate the total amount of fee or profit that is available under this contract to equal periods of 12 months to run sequentially for the entire term of the contract (i.e., from the effective date of the contract to the expiration date of the contract, including all options). The amount of fee or profit to be allocated to each period shall be equal to the average monthly fee or profit that is available or otherwise payable during the entire term of the contract, multiplied by the number of months established above for each period.
- (ii) Under this clause, the total amount of fee or profit that is subject to reduction in a period in which a performance failure occurs, in combination with any reduction made under any other clause in the contract that provides for a reduction to the fee or profit, shall not exceed the amount of fee or profit that is earned by the contractor in the period established pursuant to paragraph (b)(2)(i) of this clause.
- (3) For performance-based firm-fixed-price contracts, the contracting officer will at the time of contract award include negative monetary incentives in the contract for contractor violations relating to the safeguarding of Restricted Data and other classified information and relating to protection of worker safety and health.
- (c) Safeguarding Restricted Data and Other Classified Information. Performance failures occur if the contractor does not comply with the terms and conditions of this contract relating to the safeguarding of Restricted Data and other classified information. The degrees of performance failures relating to the contractor's obligations under this contract for safeguarding of Restricted Data and other classified information are as follows:
- (1) First Degree: Performance failures that have been determined, in accordance with applicable law, regulation, or DOE directive, to have resulted in, or that can reasonably be expected to result in, exceptionally grave damage to the national security. The following are examples of performance failures or performance failures of similar import that will be considered first degree:
 - (i) Non-compliance with applicable laws, regulations, and DOE directives actually resulting in, or creating a risk of, loss, compromise, or unauthorized disclosure of Top Secret Restricted Data or other information classified as Top Secret, or any classification level of information in a Special Access Program (SAP), information identified as sensitive compartmented information (SCI), or weapons data high risk nuclear weapons-related data.
 - (ii) Contractor actions that result in a breakdown of the safeguards and security management system that can reasonably be expected to result in the loss, compromise, or unauthorized disclosure of Top Secret Restricted Data, or other information classified as Top Secret, or any classification level of information in a

- Special Access SAP, Program (SAP), identified as sensitive compartmented information (SCI), or weapons data information identified as SCI, or high risk nuclear weapons-related data.
- (iii) Failure to promptly report the loss, compromise, or unauthorized disclosure of Top Secret Restricted Data or other information classified as Top Secret, any classification level of information in a SAP, information identified as SCI, or high risk nuclear weapons-related data.
 - (iii) Failure to timely implement corrective actions stemming from the loss, compromise, or unauthorized disclosure of Top Secret Restricted Data or other classified information classified as Top Secret, or any classification level of information in a Special Access Program (SAP), identified as sensitive compartmented information SAP, information identified as SCI, or high risk nuclear weapons-related (SCI), or weapons data.
- (2) Second Degree: Performance failures that have been determined, in accordance with applicable law, regulation, or DOE directive, to have actually resulted in, or that can reasonably be expected to result in, serious damage to the national security. The following are examples of performance failures or performance failures of similar import that will be considered second degree:
- (i) Non-compliance with applicable laws, regulations, and DOE directives actually resulting in, or creating risk of, loss, compromise, or unauthorized disclosure of Secret Restricted Data or other information classified as Secret.
 - (ii) Contractor actions that result in a breakdown of the safeguards and security management system that can reasonably be expected to result in the loss, compromise, or unauthorized disclosure of Secret Restricted Data, or other information classified as Secret.
 - (iii) Failure to promptly report the loss, compromise, or unauthorized disclosure of Restricted Data or other classified information regardless of classification (except for information covered by paragraph (c)(1)(iii) of this clause).
 - (iv) Failure to timely implement corrective actions stemming from the loss, compromise, or unauthorized disclosure of Secret Restricted Data or other information classified as Secret.
- (3) Third Degree: Performance failures that have been determined, in accordance with applicable law, regulation, or DOE directive, to have actually resulted in, or that can reasonably be expected to result in, undue risk to the common defense and security. In addition, this category includes performance failures that result from a lack of contractor management and/or employee attention to the proper safeguarding of Restricted Data and other classified information. These performance failures may be indicators of future, more severe performance failures and/or conditions, and if identified and corrected early would prevent serious incidents. The following are examples of performance failures or performance failures of similar import will be considered third degree:
- (i) Non-compliance with applicable laws, regulations, and DOE directives actually resulting in, or creating risk of, loss, compromise, or unauthorized disclosure of Restricted Data or other information classified as Confidential.
 - (ii) Failure to promptly report alleged or suspected violations of laws, regulations, or directives pertaining to the safeguarding of Restricted Data or other classified information.
 - (iii) Failure to identify or timely execute corrective actions to mitigate or eliminate identified vulnerabilities and reduce residual risk relating to the protection of Restricted Data or other classified information in accordance with the contractor's Safeguards and Security Plan or other security plan, as applicable.
 - (iv) Contractor actions that result in performance failures which unto themselves pose minor risk, but when viewed in the aggregate indicate degradation in the

integrity of the contractor's safeguards and security management system relating to the protection of Restricted Data and other classified information.

- (d) Protection of Worker Safety and Health. Performance failures occur if the contractor does not comply with the contract's WS&H terms and conditions, which may be included in the DOE approved contractor Integrated Safety Management System (ISMS). The degrees of performance failure under which reductions of fee or profit will be determined are:
- (1) First Degree: Performance failures that are most adverse to WS&H or could threaten the successful completion of a program or project. For contracts including ISMS requirements, failure to develop and obtain required DOE approval of WS&H aspects of an ISMS is considered first degree. The Government will perform necessary review of the ISMS in a timely manner and will not unreasonably withhold approval of the WS&H aspects of the contractor's ISMS. The following performance failures or performance failures of similar import will be deemed first degree:
 - (i) Type A accident (defined in DOE Order 225.1A).
 - (ii) Two Second Degree performance failures during an evaluation period.
 - (2) Second Degree: Performance failures that are significantly adverse to WS&H. They include failures to comply with approved WS&H aspects of an ISMS that result in an actual injury, exposure, or exceedence that occurred or nearly occurred but had minor practical long-term health consequences. The following performance failures or performance failures of similar import will be considered second degree:
 - (i) Type B accident (defined in DOE Order 225.1A).
 - (ii) Non-compliance with approved WS&H aspects of an ISMS that results in a near miss of a Type A or B accident. A near miss is a situation in which an inappropriate action occurs, or a necessary action is omitted, but does not result in an adverse effect.
 - (iii) Failure to mitigate or notify DOE of an imminent danger situation after discovery, where such notification is a requirement of the contract.
 - (3) Third Degree: Performance failures that reflect a lack of focus on improving WS&H. They include failures to comply with approved WS&H aspects of an ISMS that result in potential breakdown of the contractor's WS&H system. The following performance failures or performance failures of similar import will be considered third degree:
 - (i) Failure to implement effective corrective actions to address deficiencies/non-compliance documented through external (e.g., Federal) oversight and/or reported per DOE Order 232.1A requirements, or internal oversight of DOE O 440.1A requirements.
 - (ii) Multiple similar non-compliances identified by external (e.g., Federal) oversight that in aggregate indicate a significant WS&H system breakdown.
 - (iii) Non-compliances that either have, or may have, significant negative impacts to workers that indicate a significant WS&H system breakdown.
 - (iv) Failure to notify DOE upon discovery of events or conditions where notification is required by the terms and conditions of the contract.

I.108 952.224-70 Paperwork Reduction Act (APR 1994)

- (a) In the event that it subsequently becomes a contractual requirement to collect or record information calling either for answer to identical questions from 10 or more persons other than Federal employees, or information from Federal employees which is to be used for statistical compilations of general public interest, the Paperwork Reduction Act will apply to this contract. No plan, questionnaire, interview guide, or other similar device for collecting

information (whether repetitive or single-time) may be used without first obtaining clearance from the Office of Management and Budget (OMB).

- (b) The contractor shall request the required OMB clearance from the contracting officer before expending any funds or making public contacts for the collection of data. The authority to expend funds and to proceed with the collection of data shall be in writing by the contracting officer. The contractor must plan at least 90 days for OMB clearance. Excessive delay caused by the Government which arises out of causes beyond the control and without the fault or negligence of the contractor will be considered in accordance with the clause entitled "Excusable Delays," if such clause is applicable. If not, the period of performance may be extended pursuant to this clause if approved by the contracting officer.

I.109 952.226-74 Displaced Employee Hiring Preference (JUN 1997)

- (a) Definition.

Eligible employee means a current or former employee of a contractor or subcontractor employed at a Department of Energy Defense Nuclear Facility

- (1) whose position of employment has been, or will be, involuntarily terminated (except if terminated for cause),
 - (2) who has also met the eligibility criteria contained in the Department of Energy guidance for contractor work force restructuring, as may be amended or supplemented from time to time, and
 - (3) who is qualified for a particular job vacancy with the Department or one of its contractors with respect to work under its contract with the Department at the time the particular position is available.
- (b) Consistent with Department of Energy guidance for contractor work force restructuring, as may be amended or supplemented from time to time, the contractor agrees that it will provide a preference in hiring to an eligible employee to the extent practicable for work performed under this contract.
 - (c) The requirements of this clause shall be included in subcontracts at any tier (except for subcontracts for commercial items pursuant to 41 U.S.C. 403) expected to exceed \$500,000.

I.110 952.231-71 Insurance-Litigation and Claims (APR 2002)

- (a) The contractor may, with the prior written authorization of the contracting officer, and shall, upon the request of the Government, initiate litigation against third parties, including proceedings before administrative agencies, in connection with this contract. The contractor shall proceed with such litigation in good faith and as directed from time to time by the contracting officer.
- (b) The contractor shall give the contracting officer immediate notice in writing of any legal proceeding, including any proceeding before an administrative agency, filed against the contractor arising out of the performance of this contract. Except as otherwise directed by the contracting officer, in writing, the contractor shall furnish immediately to the contracting officer copies of all pertinent papers received by the contractor with respect to such action. The contractor, with the prior written authorization of the contracting officer, shall proceed with such litigation in good faith and as directed from time to time by the contracting officer.

- (c) (1) Except as provided in paragraph (c)(2) of this clause, the contractor shall procure and maintain such bonds and insurance as required by law or approved in writing by the contracting officer.
 - (2) The contractor may, with the approval of the contracting officer, maintain a self-insurance program; provided that, with respect to workers' compensation, the contractor is qualified pursuant to statutory authority.
 - (3) All bonds and insurance required by this clause shall be in a form and amount and for those periods as the contracting officer may require or approve and with sureties and insurers approved by the contracting officer.
- (d) The contractor agrees to submit for the contracting officer's approval, to the extent and in the manner required by the contracting officer, any other bonds and insurance that are maintained by the contractor in connection with the performance of this contract and for which the contractor seeks reimbursement. If an insurance cost (whether a premium for commercial insurance or related to self-insurance) includes a portion covering costs made unallowable elsewhere in the contract, and the share of the cost for coverage for the unallowable cost is determinable, the portion of the cost that is otherwise an allowable cost under this contract is reimbursable to the extent determined by the contracting officer.
- (e) Except as provided in paragraphs (g) and (h) of this clause, or specifically disallowed elsewhere in this contract, the contractor shall be reimbursed—
- (1) For that portion of the reasonable cost of bonds and insurance allocable to this contract required in accordance with contract terms or approved under this clause, and
 - (2) For liabilities (and reasonable expenses incidental to such liabilities, including litigation costs) to third persons not compensated by insurance or otherwise without regard to and as an exception to the limitation of cost or limitation of funds clause of this contract.
- (f) The Government's liability under paragraph (e) of this clause is subject to the availability of appropriated funds. Nothing in this contract shall be construed as implying that the Congress will, at a later date, appropriate funds sufficient to meet deficiencies.
- (g) Notwithstanding any other provision of this contract, the contractor shall not be reimbursed for liabilities (and expenses incidental to such liabilities, including litigation costs, counsel fees, judgment and settlements)—
- (1) Which are otherwise unallowable by law or the provisions of this contract; or
 - (2) For which the contractor has failed to insure or to maintain insurance as required by law, this contract, or by the written direction of the contracting officer.
- (h) In addition to the cost reimbursement limitations contained in 48 CFR part 31, as supplemented in 48 CFR part 931, and notwithstanding any other provision of this contract, the contractor's liabilities to third persons, including employees but excluding costs incidental to workers' compensation actions (and any expenses incidental to such liabilities, including litigation costs, counsel fees, judgments and settlements), shall not be reimbursed if such liabilities were caused by contractor managerial personnel's—

- (1) Willful misconduct,
 - (2) Lack of good faith, or
 - (3) Failure to exercise prudent business judgment, which means failure to act in the same manner as a prudent person in the conduct of competitive business; or, in the case of a non-profit educational institution, failure to act in the manner that a prudent person would under the circumstances prevailing at the time the decision to incur the cost is made.
- (i) The burden of proof shall be upon the contractor to establish that costs covered by paragraph (h) of this clause are allowable and reasonable if, after an initial review of the facts, the contracting officer challenges a specific cost or informs the contractor that there is reason to believe that the cost results from willful misconduct, lack of good faith, or failure to exercise prudent business judgment by contractor managerial personnel.
- (j) (1) All litigation costs, including counsel fees, judgments and settlements shall be differentiated and accounted for by the contractor so as to be separately identifiable. If the contracting officer provisionally disallows such costs, then the contractor may not use funds advanced by DOE under the contract to finance the litigation.
- (2) Punitive damages are not allowable unless the act or failure to act which gave rise to the liability resulted from compliance with specific terms and conditions of the contract or written instructions from the contracting officer.
- (3) The portion of the cost of insurance obtained by the contractor that is allocable to coverage of liabilities referred to in paragraph (g)(1) of this clause is not allowable.
- (4) The term "contractor's managerial personnel" is defined in the Property clause in this contract.
- (k) The contractor may at its own expense and not as an allowable cost procure for its own protection insurance to compensate the contractor for any unallowable or unreimbursable costs incurred in connection with contract performance.
- (l) If any suit or action is filed or any claim is made against the contractor, the cost and expense of which may be reimbursable to the contractor under this contract, and the risk of which is then uninsured or is insured for less than the amount claimed, the contractor shall—
- (1) Immediately notify the contracting officer and promptly furnish copies of all pertinent papers received;
 - (2) Authorize Department representatives to collaborate with: in-house or DOE-approved outside counsel in settling or defending the claim; or counsel for the insurance carrier in settling or defending the claim if the amount of the liability claimed exceeds the amount of coverage, unless precluded by the terms of the insurance contract; and
 - (3) Authorize Department representatives to settle the claim or to defend or represent the contractor in and/or to take charge of any litigation, if required by the Department, if the liability is not insured or covered by bond. In any action against more than one Department contractor, the Department may require the contractor to be represented by common counsel. Counsel for the contractor may, at the contractor's own expense,

be associated with the Department representatives in any such claim or litigation.

I.111 952.242-70 Technical Direction (DEC 2000)

- (a) Performance of the work under this contract shall be subject to the technical direction of the DOE Contracting Officer's Representative (COR). The term "technical direction" is defined to include, without limitation:
 - (1) Providing direction to the contractor that redirects contract effort, shift work emphasis between work areas or tasks, require pursuit of certain lines of inquiry, fill in details, or otherwise serve to accomplish the contractual Statement of Work.
 - (2) Providing written information to the contractor that assists in interpreting drawings, specifications, or technical portions of the work description.
 - (3) Reviewing and, where required by the contract, approving, technical reports, drawings, specifications, and technical information to be delivered by the contractor to the Government.
- (b) The contractor will receive a copy of the written COR designation from the contracting officer. It will specify the extent of the COR's authority to act on behalf of the contracting officer.
- (c) Technical direction must be within the scope of work stated in the contract. The COR does not have the authority to, and may not, issue any technical direction that:
 - (1) Constitutes an assignment of additional work outside the Statement of Work;
 - (2) Constitutes a change as defined in the contract clause entitled "Changes;"
 - (3) In any manner causes an increase or decrease in the total estimated contract cost, the fee (if any), or the time required for contract performance;
 - (4) Changes any of the expressed terms, conditions or specifications of the contract; or
 - (5) Interferes with the contractor's right to perform the terms and conditions of the contract.
- (d) All technical direction shall be issued in writing by the COR.
- (e) The contractor must proceed promptly with the performance of technical direction duly issued by the COR in the manner prescribed by this clause and within its authority under the provisions of this clause. If, in the opinion of the contractor, any instruction or direction by the COR falls within one of the categories defined in (c)(1) through (c)(5) of this clause, the contractor must not proceed and must notify the Contracting Officer in writing within five (5) working days after receipt of any such instruction or direction and must request the Contracting Officer to modify the contract accordingly. Upon receiving the notification from the contractor, the Contracting Officer must:
 - (1) Advise the contractor in writing within thirty (30) days after receipt of the contractor's letter that the technical direction is within the scope of the contract effort and does not constitute a change under the Changes clause of the contract;
 - (2) Advise the contractor in writing within a reasonable time that the Government will issue

a written change order; or

- (3) Advise the contractor in writing within a reasonable time not to proceed with the instruction or direction of the COR. [*81009]
- (f) A failure of the contractor and Contracting Officer either to agree that the technical direction is within the scope of the contract or to agree upon the contract action to be taken with respect to the technical direction will be subject to the provisions of the clause entitled "Disputes."

I.112 952.250-70 Nuclear Hazards Indemnity Agreement (JUN 1996)

- (a) Authority. This clause is incorporated into this contract pursuant to the authority contained in subsection 170d.of the Atomic Energy Act of 1954, as amended (hereinafter called the Act.)
- (b) Definitions. The definitions set out in the Act shall apply to this clause.
- (c) Financial protection. Except as hereafter permitted or required in writing by DOE, the contractor will not be required to provide or maintain, and will not provide or maintain at Government expense, any form of financial protection to cover public liability, as described in paragraph (d)(2) below. DOE may, however, at any time require in writing that the contractor provide and maintain financial protection of such a type and in such amount as DOE shall determine to be appropriate to cover such public liability, provided that the costs of such financial protection are reimbursed to the contractor by DOE.
- (d) (1) Indemnification. To the extent that the contractor and other persons indemnified are not compensated by any financial protection permitted or required by DOE, DOE will indemnify the contractor and other persons indemnified against:
 - (i) claims for public liability as described in subparagraph (d)(2) of this clause; and
 - (ii) such legal costs of the contractor and other persons indemnified as are approved by DOE, provided that DOE's liability, including such legal costs, shall not exceed the amount set forth in section 170e.(1)(B) of the Act in the aggregate for each nuclear incident or precautionary evacuation occurring within the United States or \$100 million in the aggregate for each nuclear incident occurring outside the United States, irrespective of the number of persons indemnified in connection with this contract.
- (2) The public liability referred to in subparagraph (d)(1) of this clause is public liability as defined in the Act which:
 - (i) arises out of or in connection with the activities under this contract, including transportation; and
 - (ii) arises out of or results from a nuclear incident or precautionary evacuation, as those terms are defined in the Act.
- (e) (1) Waiver of Defenses. In the event of a nuclear incident, as defined in the Act, arising out of nuclear waste activities, as defined in the Act, the contractor, on behalf of itself and other persons indemnified, agrees to waive any issue or defense as to charitable or governmental immunity.
- (2) In the event of an extraordinary nuclear occurrence which:
 - (i) Arises out of, results from, or occurs in the course of the construction, possession, or operation of a production or utilization facility; or
 - (ii) Arises out of, results from, or occurs in the course of transportation of source material, by-product material, or special nuclear material to or from a production

- or utilization facility; or
 - (iii) Arises out of or results from the possession, operation, or use by the contractor or a subcontractor of a device utilizing special nuclear material or by-product material, during the course of the contract activity; or
 - (iv) Arises out of, results from, or occurs in the course of nuclear waste activities, the contractor, on behalf of itself and other persons indemnified, agrees to waive:
 - (A) Any issue or defense as to the conduct of the claimant (including the conduct of persons through whom the claimant derives its cause of action) or fault of persons indemnified, including, but not limited to:
 - (1) Negligence;
 - (2) Contributory negligence;
 - (3) Assumption of risk; or
 - (4) Unforeseeable intervening causes, whether involving the conduct of a third person or an act of God;
 - (B) Any issue or defense as to charitable or governmental immunity; and
 - (C) Any issue or defense based on any statute of limitations, if suit is instituted within 3 years from the date on which the claimant first knew, or reasonably could have know, of his injury or change and the cause thereof. The waiver of any such issue or defense shall be effective regardless of whether such issue or defense may otherwise be deemed jurisdictional or relating to an element in the cause of action. The waiver shall be judicially enforceable in accordance with its terms by the claimant against the person indemnified.
 - (v) The term "extraordinary nuclear occurrence" means an event which DOE has determined to be an extraordinary nuclear occurrence as defined in the Act. A determination of whether or not there has been an extraordinary nuclear occurrence will be made in accordance with the procedures in 10 CFR part 840.
 - (vi) For the purposes of that determination, "off-site" as that term is used in 10 CFR part 840 means away from "the contract location" which phrase means any DOE facility, installation, or site at which contractual activity under this contract is being carried on, and any contractor-owned or controlled facility, installation, or site at which the contractor is engaged in the performance of contractual activity under this contract.
- (3) The waivers set forth above:
- (i) Shall be effective regardless of whether such issue or defense may otherwise be deemed jurisdictional or relating to an element in the clause of action;
 - (ii) Shall be judicially enforceable in accordance with its terms by the claimant against the person indemnified;
 - (iii) Shall not preclude a defense based upon a failure to take reasonable steps to mitigate damages;
 - (iv) Shall not apply to injury or damage to a claimant or to a claimant's property which is intentionally sustained by the claimant or which results from a nuclear incident intentionally and wrongfully caused by the claimant;
 - (v) Shall not apply to injury to a claimant who is employed at the site of and in connection with the activity where the extraordinary nuclear occurrence takes place, if benefits therefore are either payable or required to be provided under any workmen's compensation or occupational disease law;
 - (vi) Shall not apply to any claim resulting from a nuclear incident occurring outside the United States;
 - (vii) Shall be effective only with respect to those obligations set forth in this clause and in insurance policies, contracts or other proof of financial protection; and
 - (viii) Shall not apply to, or prejudice the prosecution or defense of, any claim or portion of claim which is not within the protection afforded under
 - (A) the limit of liability provisions under subsection 170e. of the Act, and

- (B) the terms of this agreement and the terms of insurance policies, contracts, or other proof of financial protection.
- (f) Notification and litigation of claims. The contractor shall give immediate written notice to DOE of any known action or claim filed or made against the contractor or other person indemnified for public liability as defined in paragraph (d)(2). Except as otherwise directed by DOE, the contractor shall furnish promptly to DOE, copies of all pertinent papers received by the contractor or filed with respect to such actions or claims. DOE shall have the right to, and may collaborate with, the contractor and any other person indemnified in the settlement or defense of any action or claim and shall have the right to:
- (1) require the prior approval of DOE for the payment of any claim that DOE be required to indemnify hereunder; and
 - (2) appear through the Attorney General on behalf of the contractor or other person indemnified in any action brought upon any claim that DOE may be required to indemnify hereunder; take charge of such action, and settle or defend any such action. If the settlement or defense of any such action or claim is undertaken by DOE, the contractor or other person indemnified shall furnish all reasonable assistance in effecting a settlement or asserting a defense.
- (g) Continuity of DOE obligations. The obligations of DOE under this clause shall not be affected by any failure on the part of the contractor to fulfill its obligation under this contract and shall be unaffected by the death, disability, or termination of existence of the contractor, or by the completion, termination or expiration of this contract.
- (h) Effect of other clauses. The provisions of this clause shall not be limited in any way by, and shall be interpreted without reference to any, other clause of this contract, including the clause entitled Contract Disputes provided, however, that this clause shall be subject to the clauses entitled Covenant Against Contingent Fees, and Audit and records—negotiation, and any provisions that are later added to this contract as required by applicable Federal law, including statutes, executive orders and regulations, to be included in Nuclear Hazards Indemnity Agreements.
- (i) Civil penalties. The contractor and its subcontractors and suppliers who are indemnified under the provisions of this clause are subject to civil penalties, pursuant to 234A of the Act, for violations of applicable DOE nuclear-safety related rules, regulations, or orders.
- (j) Criminal penalties. Any individual director, officer, or employee of the contractor or of its subcontractors and suppliers who are indemnified under the provisions of this clause are subject to criminal penalties, pursuant to 223(c) of the Act, for knowing and willful violation of the Atomic Energy Act of 1954, as amended, and applicable DOE nuclear safety-related rules, regulations or orders which violation results in, or, if undetected, would have resulted in a nuclear incident.
- (k) Inclusion in subcontracts. The contractor shall insert this clause in any subcontract which may involve the risk of public liability, as the term is defined in the Act and further described in paragraph (d)(2) above. However, this clause shall not be included in subcontracts in which the subcontractor is subject to Nuclear Regulatory Commission (NRC) financial protection requirements under section 170b. of the Act or NRC agreements of indemnification under section 170c. or k. of the Act for the activities under the subcontract.

I.113 952.251-70 Contractor Employee Travel Discounts (DEC 2000)

(a) The contractor shall take advantage of travel discounts offered to Federal contractor employee travelers by AMTRAK, hotels, motels, or car rental companies, when use of such discounts would result in lower overall trip costs and the discounted services are reasonably available. Vendors providing these services may require the contractor employee to furnish them a letter of identification signed by the authorized contracting officer.

(b) Contracted airlines.

Contractors are not eligible for GSA contract city pair fares.

(c) Discount rail service. AMTRAK voluntarily offers discounts to Federal travelers on official business and sometimes extends those discounts to Federal contractor employees.

(d) Hotels/motels.

Many lodging providers extend their discount rates for Federal employees to Federal contractor employees.

(e) Car rentals.

The Military Traffic Management Command (MTMC) of the Department of Defense negotiates rate agreements with car rental companies that are available to Federal travelers on official business. Some car rental companies extend those discounts to Federal contractor employees.

(f) Obtaining travel discounts.

(1) To determine which vendors offer discounts to Government contractors, the contractor may review commercial publications such as the Official Airline guides Official Traveler, Innovata, or National Telecommunications. The contractor may also obtain this information from GSA contract Travel Management Centers or the Department of Defense's Commercial Travel Offices.

(2) The vendor providing the service may require the Government contractor to furnish a letter signed by the contracting officer. The following illustrates a standard letter of identification.

OFFICIAL AGENCY LETTERHEAD

TO: Participating Vendor

SUBJECT: OFFICIAL TRAVEL OF GOVERNMENT CONTRACTOR

(FULL NAME OF TRAVELER), the bearer of this letter is an employee of (COMPANY NAME) which has a contract with this agency under Government contract (CONTRACT NUMBER). During the period of the contract (GIVE DATES), AND WITH THE APPROVAL OF THE CONTRACT VENDOR, the employee is eligible and authorized to use available travel discount rates in accordance with Government contracts and/or agreements. Government Contract City Pair fares are not available to Contractors.

SIGNATURE, Title and telephone number of Contracting Officer

I.114 970.5203-2 Performance Improvement and Collaboration (MAY 2006)

- (a) The contractor agrees that it shall affirmatively identify, evaluate, and institute practices, where appropriate, that will improve performance in the areas of environmental and health, safety, scientific and technical, security, business and administrative, and any other areas of performance in the management and operation of the contract. This may entail the alteration of existing practices or the institution of new procedures to more effectively or efficiently perform any aspect of contract performance or reduce overall cost of operation under the contract. Such improvements may result from changes in organization, outsourcing decisions, simplification of systems while retaining necessary controls, or any other approaches consistent with the statement of work and performance measures of this contract.
- (b) The contractor agrees to work collaboratively with the Department, all other management and operating, DOE major facilities management contractors and affiliated contractors which manage or operate DOE sites or facilities for the following purposes: (i) to exchange information generally, (ii) to evaluate concepts that may be of benefit in resolving common issues, in confronting common problems, or in reducing costs of operations, and (iii) to otherwise identify and implement DOE-complex-wide management improvements discussed in paragraph (a). In doing so, it shall also affirmatively provide information relating to its management improvements to such contractors, including lessons learned, subject to security considerations and the protection of data proprietary to third parties.
- (c) The contractor may consult with the contracting officer in those instances in which improvements being considered pursuant to paragraph (a) involve the cooperation of the DOE. The contractor may request the assistance of the contracting officer in the communication of the success of improvements to other management and operating contractors in accordance with paragraph (b) of this clause.
- (d) The contractor shall notify the contracting officer and seek approval where necessary to fulfill its obligations under the contract. Compliance with this clause in no way alters the obligations of the Contractor under any other provision of this contract.

I.115 970.5204-2 Laws, Regulations, and DOE Directives (DEC 2000)

- (a) In performing work under this contract, the contractor shall comply with the requirements of applicable Federal, State, and local laws and regulations (including DOE regulations), unless relief has been granted in writing by the appropriate regulatory agency. A List of Applicable Laws and regulations (List A) may be appended to this contract for information purposes. Omission of any applicable law or regulation from List A does not affect the obligation of the contractor to comply with such law or regulation pursuant to this paragraph.
- (b) In performing work under this contract, the contractor shall comply with the requirements of those Department of Energy directives, or parts thereof, identified in the List of Applicable Directives (List B) appended to this contract. Except as otherwise provided for in paragraph (d) of this clause, the contracting officer may, from time to time and at any time, revise List B by unilateral modification to the contract to add, modify, or delete specific requirements. Prior to revising List B, the contracting officer shall notify the contractor in writing of the Department's intent to revise List B and provide the contractor with the opportunity to assess the effect of the contractor's compliance with the revised list on contract cost and funding,

technical performance, and schedule; and identify any potential inconsistencies between the revised list and the other terms and conditions of the contract. Within 30 days after receipt of the contracting officer's notice, the contractor shall advise the contracting officer in writing of the potential impact of the contractor's compliance with the revised list. Based on the information provided by the contractor and any other information available, the contracting officer shall decide whether to revise List B and so advise the contractor not later than 30 days prior to the effective date of the revision of List B. The contractor and the contracting officer shall identify and, if appropriate, agree to any changes to other contract terms and conditions, including cost and schedule, associated with the revision of List B pursuant to the clause of this contract entitled, "Changes."

- (c) Environmental, safety, and health (ES&H) requirements appropriate for work conducted under this contract may be 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, such as a tailoring process included in a DOE approved Safety Management System implemented under the clause entitled "Integration of Environment, Safety, and Health into Work Planning and Execution." When such a process is used, the set of tailored (ES&H) requirements, as approved by DOE pursuant to the process, shall be incorporated into List B as contract requirements with full force and effect. These requirements shall supersede, in whole or in part, the contractual environmental, safety, and health requirements previously made applicable to the contract by List B. If the tailored set of requirements identifies an alternative requirement varying from an ES&H requirement of an applicable law or regulation, the contractor shall request an exemption or other appropriate regulatory relief specified in the regulation
- (d) Except as otherwise directed by the contracting officer, the contractor shall procure all necessary permits or licenses required for the performance of work under this contract.
- (e) Regardless of the performer of the work, the contractor is responsible for compliance with the requirements of this clause. The contractor is responsible for flowing down the requirements of this clause to subcontracts at any tier to the extent necessary to ensure the contractor's compliance with the requirements.

I.116 970.5223-1 Integration of Environment, Safety, and Health into Work Planning and Execution (DEC 2000)

- (a) For the purposes of this clause,
 - (1) Safety encompasses environment, safety and health, including pollution prevention and waste minimization; and
 - (2) Employees include subcontractor employees.
- (b) In performing work under this contract, the contractor shall perform work safely, in a manner that ensures adequate protection for employees, the public, and the environment, and shall be accountable for the safe performance of work. The contractor shall exercise a degree of care commensurate with the work and the associated hazards. The contractor shall ensure that management of environment, safety and health (ES&H) functions and activities becomes an integral but visible part of the contractor's work planning and execution processes. The contractor shall, in the performance of work, ensure that:
 - (1) Line management is responsible for the protection of employees, the public, and the

environment. Line management includes those contractor and subcontractor employees managing or supervising employees performing work.

- (2) Clear and unambiguous lines of authority and responsibility for ensuring (ES&H) are established and maintained at all organizational levels.
 - (3) Personnel possess the experience, knowledge, skills, and abilities that are necessary to discharge their responsibilities.
 - (4) Resources are effectively allocated to address ES&H, programmatic, and operational considerations. Protecting employees, the public, and the environment is a priority whenever activities are planned and performed.
 - (5) Before work is performed, the associated hazards are evaluated and an agreed-upon set of ES&H standards and requirements are established which, if properly implemented, provide adequate assurance that employees, the public, and the environment are protected from adverse consequences.
 - (6) Administrative and engineering controls to prevent and mitigate hazards are tailored to the work being performed and associated hazards. Emphasis should be on designing the work and/or controls to reduce or eliminate the hazards and to prevent accidents and unplanned releases and exposures.
 - (7) The conditions and requirements to be satisfied for operations to be initiated and conducted are established and agreed-upon by DOE and the contractor. These agreed-upon conditions and requirements are requirements of the contract and binding upon the contractor. The extent of documentation and level of authority for agreement shall be tailored to the complexity and hazards associated with the work and shall be established in a Safety Management System.
- (c) The contractor shall manage and perform work in accordance with a documented Safety Management System (System) that fulfills all conditions in paragraph (b) of this clause at a minimum. Documentation of the System shall describe how the contractor will:
- (1) Define the scope of work;
 - (2) Identify and analyze hazards associated with the work;
 - (3) Develop and implement hazard controls;
 - (4) Perform work within controls; and
 - (5) Provide feedback on adequacy of controls and continue to improve safety management.
- (d) The System shall describe how the contractor will establish, document, and implement safety performance objectives, performance measures, and commitments in response to DOE program and budget execution guidance while maintaining the integrity of the System. The System shall also describe how the contractor will measure system effectiveness.
- (e) The contractor shall submit to the contracting officer documentation of its System for review and approval. Dates for submittal, discussions, and revisions to the System will be

- established by the contracting officer. Guidance on the preparation, content, review, and approval of the System will be provided by the contracting officer. On an annual basis, the contractor shall review and update, for DOE approval, its safety performance objectives, performance measures, and commitments consistent with and in response to DOE's program and budget execution guidance and direction. Resources shall be identified and allocated to meet the safety objectives and performance commitments as well as maintain the integrity of the entire System. Accordingly, the System shall be integrated with the contractor's business processes for work planning, budgeting, authorization, execution, and change control.
- (f) The contractor shall comply with, and assist the Department of Energy in complying with, ES&H requirements of all applicable laws and regulations, and applicable directives identified in the clause of this contract entitled "Laws, Regulations, and DOE Directives." The contractor shall cooperate with Federal and non-Federal agencies having jurisdiction over ES&H matters under this contract.
 - (g) The contractor shall promptly evaluate and resolve any noncompliance with applicable ES&H requirements and the System. If the contractor fails to provide resolution or if, at any time, the contractor's acts or failure to act causes substantial harm or an imminent danger to the environment or health and safety of employees or the public, the contracting officer may issue an order stopping work in whole or in part. Any stop work order issued by a contracting officer under this clause (or issued by the contractor to a subcontractor in accordance with paragraph (i) of this clause) shall be without prejudice to any other legal or contractual rights of the Government. In the event that the contracting officer issues a stop work order, an order authorizing the resumption of the work may be issued at the discretion of the contracting officer. The contractor shall not be entitled to an extension of time or additional fee or damages by reason of, or in connection with, any work stoppage ordered in accordance with this clause.
 - (h) Regardless of the performer of the work, the contractor is responsible for compliance with the ES&H requirements applicable to this contract. The contractor is responsible for flowing down the ES&H requirements applicable to this contract to subcontracts at any tier to the extent necessary to ensure the contractor's compliance with the requirements.
 - (i) The contractor shall include a clause substantially the same as this clause in subcontracts involving complex or hazardous work on site at a DOE-owned or -leased facility. Such subcontracts shall provide for the right to stop work under the conditions described in paragraph (g) of this clause. Depending on the complexity and hazards associated with the work, the contractor may choose not to require the subcontractor to submit a Safety Management System for the contractor's review and approval.

I.116a 970.5223-2 Affirmative Procurement Program (As Modified by DOE AL 2008-05)

- (a) In the performance of this contract, the Contractor shall comply with the requirements of Executive Order 13423 and the U.S. Department of Energy (DOE) Affirmative Procurement Program Guidance. This guidance includes requirements concerning environmentally preferable products and services, recycled content products and biobased products. This guidance is available on the Internet.
- (b) In complying with the requirements of paragraph (a) of this clause, the Contractor shall coordinate its activities with the DOE Recycling Coordinator. Reports required by paragraph (c) of this clause shall be submitted through the DOE Recycling Coordinator.

- (c) The Contractor shall prepare and submit reports, at the end of the Federal fiscal year, on matters related to the acquisition of items designated in EPA's Comprehensive Procurement Guidelines that Federal agencies and their Contractors are to procure with recovered/recycled content.
- (d) If the Contractor subcontracts a significant portion of the operation of the Government facility which includes the acquisition of items designated in EPA's Comprehensive Procurement Guidelines, the subcontract shall contain a clause substantially the same as this clause. The EPA Comprehensive Procurement Guidelines identify products which Federal agencies and their Contractors are to procure with recycled content pursuant to 40 CFR 247. Examples of such a subcontract would be operation of the facility supply function, construction or remodeling at the facility, or maintenance of the facility motor vehicle fleet. In situations in which the facility management contractor can reasonably determine the amount of products with recovered/recycled content to be acquired under the subcontract, the facility management contractor is not required to flow down the reporting requirement of this clause. Instead, the facility management contractor may include such quantities in its own report and include an agreement in the subcontract that such products will be acquired with recovered/recycled content and that the subcontractor will advise if it is unable to procure such products with recovered/recycled content because the product is not available:
 - (i) Competitively within a reasonable time,
 - (ii) At a reasonable price, or,
 - (iii) Within the performance requirements.

If reports are required of the subcontractor, such reports shall be submitted to the facility management contractor. The reports may be submitted at the conclusion of the subcontract term provided that the subcontract delivery term is not multi-year in nature. If the delivery term is multi-year, the subcontractor shall report its accomplishments for each Federal fiscal year in a manner and at a time or times acceptable to both parties.

- (e) When this clause is used in a subcontract, the word "Contractor" will be understood to mean "subcontractor" and the term "DOE Recycling Coordinator" will be understood to mean "Contractor Recycling Coordinator."

I.117 970.5223-4 Workplace Substance Abuse Programs at DOE Sites and AL 2008-03, Revision 1 (DEC 2000)

- (a) Program Implementation. The contractor shall, consistent with 10 CFR part 707, Workplace Substance Abuse Programs at DOE Sites, incorporated herein by reference with full force and effect, develop, implement, and maintain a workplace substance abuse program.
- (b) Remedies. In addition to any other remedies available to the Government, the contractor's failure to comply with the requirements of 10 CFR part 707 or to perform in a manner consistent with its approved program may render the contractor subject to: the suspension of contract payments, or, where applicable, a reduction in award fee; termination for default; and suspension or debarment.
- (c) Subcontracts.
 - (1) The contractor agrees to notify the contracting officer reasonably in advance of, but not

later than 30 days prior to, the award of any subcontract the contractor believes may be subject to the requirements of 10 CFR part 707.

- (2) The DOE prime contractor shall require all subcontracts subject to the provisions of 10 CFR part 707 to agree to develop and implement a workplace substance abuse program that complies with the requirements of 10 CFR part 707, Workplace Substance Abuse Programs at DOE Sites, as a condition for award of the subcontract. The DOE prime contractor shall review and approve each subcontractor's program, and shall periodically monitor each subcontractor's implementation of the program for effectiveness and compliance with 10 CFR part 707.
- (3) The contractor agrees to include, and require the inclusion of, the requirements of this clause in all subcontracts, at any tier, that are subject to the provisions of 10 CFR part 707.

(d) Deliverable.

The Workplace Substance Abuse Program Plan (WSAP) shall be developed, implemented, and maintained in accordance with 10 CFR Part 707. In addition, the Plan shall address the annual requirement for random drug testing that includes 30% of Testing Designated Positions (TDPs). TDPs are defined as all contractor and subcontractor personnel with security clearances.

I.118 52.252-6 Authorized Deviations in Clauses (APR 1984)

- (a) The use in this solicitation or contract of any Federal Acquisition Regulation (48 CFR Chapter 1) clause with an authorized deviation is indicated by the addition of "(DEVIATION)" after the date of the clause.
- (b) The use in this solicitation or contract of any Department of Energy Regulations. (48 CFR 9) clause with an authorized deviation is indicated by the addition of "(DEVIATION)" after the name of the regulation.

I.119 52.203-15 Whistleblower Protections Under the American Recovery and Reinvestment Act of 2009 (MAR 2009)

- (a) The Contractor shall post notice of employees rights and remedies for whistleblower protections provided under section 1553 of the American Recovery and Reinvestment Act of 2009 (Pub. L. 111-5).
- (b) The Contractor shall include the substance of this clause including this paragraph (b) in all subcontracts.

I.120 52.204-11 American Recovery and Reinvestment Act – Reporting Requirements (MAR 2009)

- (a) *Definitions.* As used in this clause—
"Contract", as defined in FAR [2.101](#), means a mutually binding legal relationship obligating the seller to furnish the supplies or services (including construction) and the buyer to pay for them. It includes all types of commitments that obligate the Government to an expenditure of appropriated funds and that, except as otherwise authorized, are in writing. In addition to bilateral instruments, contracts include (but are not limited to) awards and notices of awards; job orders or task letters issued under basic ordering agreements; letter contracts; orders, such as purchase orders, under which the contract becomes effective by written acceptance

or performance; and bilateral contract modifications. Contracts do not include grants and cooperative agreements covered by [31 U.S.C. 6301](#), *et seq.* For discussion of various types of contracts, see FAR [Part 16](#).

“First-tier subcontract” means a subcontract awarded directly by a Federal Government prime contractor whose contract is funded by the Recovery Act.

“Jobs created” means an estimate of those new positions created and filled, or previously existing unfilled positions that are filled, as a result of funding by the American Recovery and Reinvestment Act of 2009 (Recovery Act). This definition covers only prime contractor positions established in the United States and outlying areas (see definition in FAR [2.101](#)). The number shall be expressed as “full-time equivalent” (FTE), calculated cumulatively as all hours worked divided by the total number of hours in a full-time schedule, as defined by the contractor. For instance, two full-time employees and one part-time employee working half days would be reported as 2.5 FTE in each calendar quarter.

“Jobs retained” means an estimate of those previously existing filled positions that are retained as a result of funding by the American Recovery and Reinvestment Act of 2009 (Recovery Act). This definition covers only prime contractor positions established in the United States and outlying areas (see definition in FAR [2.101](#)). The number shall be expressed as “full-time equivalent” (FTE), calculated cumulatively as all hours worked divided by the total number of hours in a full-time schedule, as defined by the contractor. For instance, two full-time employees and one part-time employee working half days would be reported as 2.5 FTE in each calendar quarter.

“Total compensation” means the cash and noncash dollar value earned by the executive during the contractor’s past fiscal year of the following (for more information see 17 CFR 229.402(c)(2)):

- (1) *Salary and bonus.*
 - (2) *Awards of stock, stock options, and stock appreciation rights.* Use the dollar amount recognized for financial statement reporting purposes with respect to the fiscal year in accordance with the Statement of Financial Accounting Standards No. 123 (Revised 2004) (FAS 123R), Shared Based Payments.
 - (3) *Earnings for services under non-equity incentive plans.* Does not include group life, health, hospitalization or medical reimbursement plans that do not discriminate in favor of executives, and are available generally to all salaried employees.
 - (4) *Change in pension value.* This is the change in present value of defined benefit and actuarial pension plans.
 - (5) *Above-market earnings on deferred compensation which is not tax-qualified.*
 - (6) *Other compensation.* For example, severance, termination payments, value of life insurance paid on behalf of the employee, perquisites or property if the value for the executive exceeds \$10,000.
- (b) This contract requires the contractor to provide products and/or services that are funded under the American Recovery and Reinvestment Act of 2009 (Recovery Act). Section 1512(c) of the Recovery Act requires each contractor to report on its use of Recovery Act funds under this contract. These reports will be made available to the public.
 - (c) Reports from contractors for all work funded, in whole or in part, by the Recovery Act, and for which an invoice is submitted prior to June 30, 2009, are due no later than July 10, 2009. Thereafter, reports shall be submitted no later than the 10th day after the end of each calendar quarter.
 - (d) The Contractor shall report the following information, using the online reporting tool available at www.FederalReporting.gov.
 - (1) The Government contract and order number, as applicable.
 - (2) The amount of Recovery Act funds invoiced by the contractor for the reporting period. A cumulative amount from all the reports submitted for this action will be maintained by the government’s on-line reporting tool.
 - (3) A list of all significant services performed or supplies delivered, including construction, for which the contractor invoiced in this calendar quarter.
 - (4) Program or project title, if any.

- (5) A description of the overall purpose and expected outcomes or results of the contract, including significant deliverables and, if appropriate, associated units of measure.
- (6) An assessment of the contractor's progress towards the completion of the overall purpose and expected outcomes or results of the contract (*i.e.*, not started, less than 50 percent completed, completed 50 percent or more, or fully completed). This covers the contract (or portion thereof) funded by the Recovery Act.
- (7) A narrative description of the employment impact of work funded by the Recovery Act. This narrative should be cumulative for each calendar quarter and only address the impact on the contractor's workforce. At a minimum, the contractor shall provide—
 - (i) A brief description of the types of jobs created and jobs retained in the United States and outlying areas (see definition in FAR [2.101](#)). This description may rely on job titles, broader labor categories, or the contractor's existing practice for describing jobs as long as the terms used are widely understood and describe the general nature of the work; and
 - (ii) An estimate of the number of jobs created and jobs retained by the prime contractor, in the United States and outlying areas. A job cannot be reported as both created and retained.
- (8) Names and total compensation of each of the five most highly compensated officers of the Contractor for the calendar year in which the contract is awarded if—
 - (i) In the Contractor's preceding fiscal year, the Contractor received—
 - (A) 80 percent or more of its annual gross revenues from Federal contracts (and subcontracts), loans, grants (and subgrants) and cooperative agreements; and
 - (B) \$25,000,000 or more in annual gross revenues from Federal contracts (and subcontracts), loans, grants (and subgrants) and cooperative agreements; and
 - (ii) The public does not have access to information about the compensation of the senior executives through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 ([15 U.S.C. 78m\(a\), 78o\(d\)](#)) or section 6104 of the Internal Revenue Code of 1986.
- (9) For subcontracts valued at less than \$25,000 or any subcontracts awarded to an individual, or subcontracts awarded to a subcontractor that in the previous tax year had gross income under \$300,000, the Contractor shall only report the aggregate number of such first tier subcontracts awarded in the quarter and their aggregate total dollar amount.
- (10) For any first-tier subcontract funded in whole or in part under the Recovery Act, that is over \$25,000 and not subject to reporting under paragraph 9, the contractor shall require the subcontractor to provide the information described in (i), (ix), (x), and (xi) below to the contractor for the purposes of the quarterly report. The contractor shall advise the subcontractor that the information will be made available to the public as required by section 1512 of the Recovery Act. The contractor shall provide detailed information on these first-tier subcontracts as follows:
 - (i) Unique identifier (DUNS Number) for the subcontractor receiving the award and for the subcontractor's parent company, if the subcontractor has a parent company.
 - (ii) Name of the subcontractor.
 - (iii) Amount of the subcontract award.
 - (iv) Date of the subcontract award.
 - (v) The applicable North American Industry Classification System (NAICS) code.
 - (vi) Funding agency.
 - (vii) A description of the products or services (including construction) being provided under the subcontract, including the overall purpose and expected outcomes or results of the subcontract.
 - (viii) Subcontract number (the contract number assigned by the prime contractor).
 - (ix) Subcontractor's physical address including street address, city, state, and country. Also include the nine-digit zip code and congressional district if applicable.
 - (x) Subcontract primary performance location including street address, city, state, and country. Also include the nine-digit zip code and congressional district if applicable.

- (xi) Names and total compensation of each of the subcontractor's five most highly compensated officers, for the calendar year in which the subcontract is awarded if—
 - (A) In the subcontractor's preceding fiscal year, the subcontractor received—
 - (1) 80 percent or more of its annual gross revenues in Federal contracts (and subcontracts), loans, grants (and subgrants), and cooperative agreements; and
 - (2) \$25,000,000 or more in annual gross revenues from Federal contracts (and subcontracts), loans, grants (and subgrants), and cooperative agreements; and
 - (B) The public does not have access to information about the compensation of the senior executives through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 ([15 U.S.C. 78m\(a\), 78o\(d\)](#)) or section 6104 of the Internal Revenue Code of 1986.

I.121 52-215-2 Audit and Records – Negotiation (Alternate I) (MAR 2009)

- (a) As used in this clause, "records" includes books, documents, accounting procedures and practices, and other data, regardless of type and regardless of whether such items are in written form, in the form of computer data, or in any other form.
- (b) Examination of costs. If this is a cost-reimbursement, incentive, time-and-materials, labor-hour, or price redeterminable contract, or any combination of these, the Contractor shall maintain and the Contracting Officer, or an authorized representative of the Contracting Officer, shall have the right to examine and audit all records and other evidence sufficient to reflect properly all costs claimed to have been incurred or anticipated to be incurred directly or indirectly in performance of this contract. This right of examination shall include inspection at all reasonable times of the Contractor's plants, or parts of them, engaged in performing the contract.
- (c) Cost or pricing data. If the Contractor has been required to submit cost or pricing data in connection with any pricing action relating to this contract, the Contracting Officer, or an authorized representative of the Contracting Officer, in order to evaluate the accuracy, completeness, and currency of the cost or pricing data, shall have the right to examine and audit all of the Contractor's records, including computations and projections, related to -
 - (1) The proposal for the contract, subcontract, or modification;
 - (2) The discussions conducted on the proposal(s), including those related to negotiating;
 - (3) Pricing of the contract, subcontract, or modification; or
 - (4) Performance of the contract, subcontract or modification.
- (d) Comptroller General or Inspector General.
 - (1) The Comptroller General of the United States, an appropriate Inspector General appointed under section 3 or 8G of the Inspector General Act of 1978 (5 U.S.C. App.), or an authorized representative of either of the foregoing officials, shall have access to and the right to—
 - (i) Examine any of the Contractor's or any subcontractor's records that pertain to and involve transactions relating to this contract or a subcontract hereunder; and
 - (ii) Interview any officer or employee regarding such transactions.

- (2) This paragraph may not be construed to require the Contractor or subcontractor to create or maintain any record that the Contractor or subcontractor does not maintain in the ordinary course of business or pursuant to a provision of law.

(e) Reports.

If the Contractor is required to furnish cost, funding, or performance reports, the Contracting Officer or an authorized representative of the Contracting Officer shall have the right to examine and audit the supporting records and materials, for the purpose of evaluating -

- (1) The effectiveness of the Contractor's policies and procedures to produce data compatible with the objectives of these reports; and
- (2) The data reported.

(f) Availability.

The Contractor shall make available at its office at all reasonable times the records, materials, and other evidence described in paragraphs (a), (b), (c), (d), and (e) of this clause, for examination, audit, or reproduction, until 3 years after final payment under this contract or for any shorter period specified in Subpart 4.7, Contractor Records Retention, of the Federal Acquisition Regulation (FAR), or for any longer period required by statute or by other clauses of this contract. In addition -

- (1) If this contract is completely or partially terminated, the Contractor shall make available the records relating to the work terminated until 3 years after any resulting final termination settlement; and
- (2) The Contractor shall make available records relating to appeals under the Disputes clause or to litigation or the settlement of claims arising under or relating to this contract until such appeals, litigation, or claims are finally resolved.

- (g) (1) Except as provided in paragraph (g)(2) of this clause, the Contractor shall insert a clause containing all the terms of this clause, including this paragraph (g), in all subcontracts under this contract. The clause may be altered only as necessary to identify properly the contracting parties and the Contracting Officer under the Government prime contract.

- (2) The authority of the Inspector General under paragraph (d)(1)(ii) of this clause does not flow down to subcontracts.

I.122 52-225-22 Notice of Required Use of American Iron, Steel, and Other Manufactured Goods—Buy American Act—Construction Materials (Alternate I) (Mar 2009)

- (a) *Definitions.* “Construction material,” “domestic construction material,” “foreign construction material,” “manufactured construction material,” “steel,” and “unmanufactured construction material,” as used in this provision, are defined in the clause of this solicitation entitled “Required Use of Iron, Steel, and Other Manufactured Goods—Buy American Act—Construction Materials” (Federal Acquisition Regulation (FAR) clause [52.225-21](#)).
- (b) *Requests for determinations of inapplicability.* An offeror requesting a determination regarding the inapplicability of section 1605 of the American Recovery and Reinvestment Act of 2009 (Pub. L. 111-5) (Recovery Act) or the Buy American Act shall submit the request with

- its offer, including the information and applicable supporting data required by paragraphs (c) and (d) of the clause at FAR [52.225-21](#).
- (c) Evaluation of offers.
- (1) If the Government determines that an exception based on unreasonable cost of domestic construction material applies, the Government will evaluate an offer requesting exception to the requirements of section 1605 of the Recovery Act or the Buy American Act by adding to the offered price of the contract—
 - (i) 25 percent of the offered price of the contract, if foreign iron, steel, or other manufactured goods are used as construction material based on unreasonable cost of comparable manufactured domestic construction material; and
 - (ii) 6 percent of the cost of foreign unmanufactured construction material included in the offer based on unreasonable cost of comparable domestic unmanufactured construction material.
 - (2) If two or more offers are equal in price, the Contracting Officer will give preference to an offer that does not include foreign construction material excepted at the request of the offeror on the basis of unreasonable cost.
- (d) Alternate offers.
- (1) When an offer includes foreign construction material not listed by the Government in this solicitation in paragraph (b)(2) of the clause at FAR [52.225-21](#), the offeror also may submit an alternate offer based on use of equivalent domestic construction material.
 - (2) If an alternate offer is submitted, the offeror shall submit a separate Standard Form 1442 for the alternate offer and a separate cost comparison table prepared in accordance with paragraphs (c) and (d) of the clause at FAR [52.225-21](#) for the offer that is based on the use of any foreign construction material for which the Government has not yet determined an exception applies.
 - (3) If the Government determines that a particular exception requested in accordance with paragraph (c) of the clause at FAR [52.225-21](#) does not apply, the Government will evaluate only those offers based on use of the equivalent domestic construction material, and the offeror shall be required to furnish such domestic construction material. An offer based on use of the foreign construction material for which an exception was requested—
 - (i) Will be rejected as nonresponsive if this acquisition is conducted by sealed bidding; or
 - (ii) May be accepted if revised during negotiations.

I.123 52-225-23 REQUIRED USE OF AMERICAN IRON, STEEL, AND OTHER MANUFACTURED GOODS—BUY AMERICAN ACT—CONSTRUCTION MATERIALS UNDER TRADE AGREEMENTS (ALTERNATE 1) (MAR 2009)

- (a) *Definitions.* As used in this clause—
- “Bahrainian, Mexican, or Omani construction material” means a construction material that—
- (1) Is wholly the growth, product, or manufacture of Bahrain, Mexico, or Oman; or
 - (2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in Bahrain, Mexico, or Oman into a new and different construction material distinct from the materials from which it was transformed.
- “Construction material” means an article, material, or supply brought to the construction site by the Contractor or subcontractor for incorporation into the building or work. The term also includes an item brought to the site preassembled from articles, materials, or supplies. However, emergency life safety systems, such as emergency lighting, fire alarm, and audio evacuation systems, that are discrete systems incorporated into a public building or work and that are produced as complete systems, are evaluated as a single and distinct construction material regardless of when or how the individual parts or components of those systems are

delivered to the construction site. Materials purchased directly by the Government are supplies, not construction material.

“Domestic construction material” means—

- (1) An unmanufactured construction material mined or produced in the United States; or
- (2) A construction material manufactured in the United States.

“Foreign construction material” means a construction material other than a domestic construction material.

“Free trade agreement (FTA) country construction material” means a construction material that—

- (1) Is wholly the growth, product, or manufacture of an FTA country; or
- (2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in an FTA country into a new and different construction material distinct from the materials from which it was transformed.

“Least developed country construction material” means a construction material that—

- (1) Is wholly the growth, product, or manufacture of a least developed country; or
- (2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a least developed country into a new and different construction material distinct from the materials from which it was transformed.

“Manufactured construction material” means any construction material that is not unmanufactured construction material.

“Recovery Act designated country” means any of the following countries:

- (1) A World Trade Organization Government Procurement Agreement (WTO GPA) country (Aruba, Austria, Belgium, Bulgaria, Canada, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hong Kong, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea (Republic of), Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Singapore, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, or United Kingdom);
- (2) A Free Trade Agreement country (FTA)(Australia, Bahrain, Canada, Chile, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Israel, Mexico, Morocco, Nicaragua, Oman, Peru, or Singapore); or
- (3) A least developed country (Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, Central African Republic, Chad, Comoros, Democratic Republic of Congo, Djibouti, East Timor, Equatorial Guinea, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, Laos, Lesotho, Liberia, Madagascar, Malawi, Maldives, Mali, Mauritania, Mozambique, Nepal, Niger, Rwanda, Samoa, Sao Tome and Principe, Senegal, Sierra Leone, Solomon Islands, Somalia, Tanzania, Togo, Tuvalu, Uganda, Vanuatu, Yemen, or Zambia).

“Recovery Act designated country construction material” means a construction material that is a WTO GPA country construction material, an FTA country construction material, or a least developed country construction material.

“Steel” means an alloy that includes at least 50 percent iron, between .02 and 2 percent carbon, and may include other elements.

“United States” means the 50 States, the District of Columbia, and outlying areas.

“Unmanufactured construction material” means raw material brought to the construction site for incorporation into the building or work that has not been—

- (1) Processed into a specific form and shape; or
- (2) Combined with other raw material to create a material that has different properties than the properties of the individual raw materials.

“WTO GPA country construction material” means a construction material that—

- (1) Is wholly the growth, product, or manufacture of a WTO GPA country; or
- (2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a WTO GPA country into a new and different construction material distinct from the materials from which it was transformed.

- (b) *Construction materials.*
- (1) The restrictions of section 1605 of the American Recovery and Reinvestment Act of 2009 (Pub. L. 111-5) (Recovery Act) and the Buy American Act do not apply to Recovery Act designated country construction material. Consistent with U.S. obligations under international agreements, this clause implements—
 - (i) Section 1605 of the Recovery Act, by requiring, unless an exception applies, that all iron, steel, and other manufactured goods used as construction material in the project are produced in the United States; and
 - (ii) The Buy American Act providing a preference for unmanufactured domestic construction material.
 - (2) The Contractor shall use only domestic or Recovery Act designated country construction material other than Bahrainian, Mexican, or Omani construction material in performing this contract, except as provided in paragraphs (b)(3) and (b)(4) of this clause.
 - (3) The requirement in paragraph (b)(2) of this clause does not apply to the construction materials or components listed by the Government as follows: "None"
 - (4) The Contracting Officer may add other construction material to the list in paragraph (b)(3) of this clause if the Government determines that—
 - (i) The cost of domestic construction material would be unreasonable.
 - (A) The cost of domestic iron, steel, or other manufactured goods used as construction material is unreasonable when the cumulative cost of such material will increase the overall cost of the contract by more than 25 percent;
 - (B) The cost of unmanufactured construction material is unreasonable when the cost of such material exceeds the cost of foreign material by more than 6 percent;
 - (ii) The construction material is not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality; or
 - (iii) The application of the restriction of section 1605 of the Recovery Act or the Buy American Act to a particular construction material would be inconsistent with the public interest.
- (c) Request for determination of inapplicability of section 1605 of the Recovery Act or the Buy American Act.
- (1)
 - (i) Any Contractor request to use foreign construction material in accordance with paragraph (b)(4) of this clause shall include adequate information for Government evaluation of the request, including—
 - (A) A description of the foreign and domestic construction materials;
 - (B) Unit of measure;
 - (C) Quantity;
 - (D) Cost;
 - (E) Time of delivery or availability;
 - (F) Location of the construction project;
 - (G) Name and address of the proposed supplier; and
 - (H) A detailed justification of the reason for use of foreign construction materials cited in accordance with paragraph (b)(4) of this clause.
 - (ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed cost comparison table in the format in paragraph (d) of this clause.
 - (iii) The cost of construction material shall include all delivery costs to the construction site and any applicable duty.
 - (iv) Any Contractor request for a determination submitted after contract award shall explain why the Contractor could not reasonably foresee the need for such determination and could not have requested the determination before contract award. If the Contractor does not submit a satisfactory explanation, the Contracting Officer need not make a determination.
 - (2) If the Government determines after contract award that an exception to section 1605 of the Recovery Act or the Buy American Act applies and the Contracting Officer and the

Contractor negotiate adequate consideration, the Contracting Officer will modify the contract to allow use of the foreign construction material. However, when the basis for the exception is the unreasonable cost of a domestic construction material, adequate consideration is not less than the differential established in paragraph (b)(4)(i) of this clause.

- (3) Unless the Government determines that an exception to the section 1605 of the Recovery Act or the Buy American Act applies, use of foreign construction material other than that covered by trade agreements is noncompliant with the applicable Act.
- (d) *Data*. To permit evaluation of requests under paragraph (c) of this clause based on unreasonable cost, the Contractor shall include the following information and any applicable supporting data based on the survey of suppliers:

Construction Material Description	Unit of Measure	Quantity	Cost (Dollars)*
<i>Item 1:</i>			
Foreign construction material	_____	_____	_____
Domestic construction material	_____	_____	_____
<i>Item 2:</i>			
Foreign construction material	_____	_____	_____
Domestic construction material	_____	_____	_____

[List name, address, telephone number, and contact for suppliers surveyed. Attach copy of response; if oral, attach summary.]

[Include other applicable supporting information.]

[* Include all delivery costs to the construction site.]

Foreign and Domes

I.124 52-225-24 NOTICE OF REQUIRED USE OF AMERICAN IRON, STEEL, AND OTHER MANUFACTURED GOODS—BUY AMERICAN ACT—CONSTRUCTION MATERIALS UNDER TRADE AGREEMENTS (ALTERNATE I) (MAR 2009)

- (a) *Definitions*. “Construction material,” “domestic construction material,” “foreign construction material,” “manufactured construction material,” “Recovery Act designated country construction material,” “steel,” and “unmanufactured construction material,” as used in this provision, are defined in the clause of this solicitation entitled “Required Use of Iron, Steel, and Other Manufactured Goods—Buy American Act—Construction Materials Under Trade Agreements” (Federal Acquisition Regulation (FAR) clause [52.225-23](#)).
- (b) *Requests for determination of inapplicability*. An offeror requesting a determination regarding the inapplicability of section 1605 of the American Recovery and Reinvestment Act of 2009 (Pub. L. 111-5) (Recovery Act) or the Buy American Act shall submit the request with its offer, including the information and applicable supporting data required by paragraphs (c) and (d) of FAR clause [52.225-23](#).
- (c) *Evaluation of offers*.
- (1) If the Government determines that an exception based on unreasonable cost of domestic construction material applies, the Government will evaluate an offer requesting exception

to the requirements of section 1605 of the Recovery Act or the Buy American Act by adding to the offered price of the contract—

- (i) 25 percent of the offered price of the contract, if foreign iron, steel, or other manufactured goods are used as construction material based on unreasonable cost of comparable manufactured domestic construction material; and
 - (ii) 6 percent of the cost of foreign unmanufactured construction material included in the offer based on unreasonable cost of comparable domestic unmanufactured construction material.
- (2) If two or more offers are equal in price, the Contracting Officer will give preference to an offer that does not include foreign construction material excepted at the request of the offeror on the basis of unreasonable cost.

(d) Alternate offers.

- (1) When an offer includes foreign construction material, other than Recovery Act designated country construction material, that is not listed by the Government in this solicitation in paragraph (b)(3) of FAR clause [52.225-23](#), the offeror also may submit an alternate offer based on use of equivalent domestic or Recovery Act designated country construction material.
- (2) If an alternate offer is submitted, the offeror shall submit a separate Standard Form 1442 for the alternate offer and a separate cost comparison table prepared in accordance with paragraphs (c) and (d) of FAR clause [52.225-23](#) for the offer that is based on the use of any foreign construction material for which the Government has not yet determined an exception applies.
- (3) If the Government determines that a particular exception requested in accordance with paragraph (c) of FAR clause [52.225-23](#) does not apply, the Government will evaluate only those offers based on use of the equivalent domestic or Recovery Act designated country construction material, and the offeror shall be required to furnish such domestic or Recovery Act designated country construction material. An offer based on use of the foreign construction material for which an exception was requested—
 - (i) Will be rejected as nonresponsive if this acquisition is conducted by sealed bidding; or
 - (ii) May be accepted if revised during negotiations.

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SECTION J – LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS

J-1 ORO J01 LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS (MAY 1987)

Attachment	Description
A	Reporting Requirements
B	List of Government Property – Furnished
C	List of Required Compliance Documents
D	Statement of Costs
E	U. S. Department of Labor Service Contract Act Wage Determination
F	U.S. Department of Labor Davis Bacon Wage Determination
G	List of Intellectual Property
H	CCP/TRU Waste Processing Center Oak Ridge National Laboratory Interface Document
I	Determining Transuranic Alpha Activity Concentration for Compliance with the Nevada Test Site Waste Acceptance Criteria
J	Nevada Test Site Waste Acceptance Criteria
K	Requirements Change Notice Process

J.2 ORO J10 REPORT DISTRIBUTION ADDRESSEE LIST (MAY 1997)

The mailing address for distribution of A, B, C, D, G, and H is as stated in the chart below. Distribution E, F, I, and J are by electronic mail only.

U. S. Department of Energy
Oak Ridge Office
P. O. Box 2001
Oak Ridge, Tennessee 37831

Office Identifier	Addressee
A	Environmental Management Division Contracting Officer Representative, EM-92 (appointed by separate memo)
B	Environmental Management Division Alternate Contracting Officer Representative, EM-92 (appointed by separate memo)
C	Procurement and Contracts Division Markesha McCants, Contract Specialist, AD-42
D	Lisa Carter, Contractor Human Resource Group, AD-44
E	Jenise Mullins, SE-32 Safety and Occupational Health Manager e-mail: mullinsjg@oro.doe.gov
F	Energy Finance & Accounting Service Center (EFASC) e-mail: costing@hq.doe.gov and Tammy.Ware@hq.doe.gov
G	Procurement and Contracts Division Rebecca Whitehead, Property & FIMS Administrator, AD-42
H	Procurement and Contracts Division Natasha White, Property Reports, AD-42
I	Headquarters Energy Finance and Accounting Service Center email: kevin.majane@hq.doe.gov
J	Oak Ridge Financial Service Center email: thomasha@oro.doe.gov

REPORTING REQUIREMENTS

REPORT	FREQUENCY	DISTRIBUTION
<i>See clause J10 ORO J10 Report Distribution Addressee List</i>		<i>(one copy each)</i>
I. Vouchers/Invoices (SF 1034) Supporting Statement of Cost and Fee	Monthly	Through VIPERS
II. Labor/Cost Management and Accrual Report	Monthly	A/B/C/F
III. Management Plan including Workplace Substance Program (See 970.5223-4), Quality Control Plan, Confidentiality Certification Agreement (See ORO H65), Equal Employment Opportunity Report (EEO-1) (See 52.222-26)	Monthly	A/B/C/D
IV. Corrective Action Items Status Report	Monthly	A/B/C
V. Other Reports		
Individual Accident/Illness Report (DOE F 5484.3)	Monthly	A/B/C/E
Headcount Data Report by EEO-1	Quarterly	A/B/C/D
Quarterly Employment Report	10 days after each Quarter	A/B/C/D
Payroll and Residence Report	Annual by Jan 15	A/B/C/D
Tabulation of Work-Hours, Vehicle Usage and Property Valuation	Quarterly	A/B/C/E
Diversity Plan Report	Annual	A/B/C/D
Proposed Project Controls System	30 days after effective date of contract	A/B/C
Project Performance Baseline	30 days after effective date of contract	A/B/C
Risk Management Plan	30 days after effective date of contract	A/B/C
Status Reports by WBS	Monthly	A/B/C
Human Resource Plan	Within 30 days of award	C/D
Worker Safety and Health Program (10 CFR 851)	Within 7 days of award	A/B
Technical design documentation Documented safety analysis Integrated safety management system description document and latest annual certification; NEPA documentation (analysis of environmental impacts Regulatory decision documents		

VI. Property Reports		
Physical Inventories (PMR 109-5201)	Annual	G/H
PIDS Report (FAR 45; CFR 109; 947.102-70)	Annual	G/H
Semi-Annual Summary Report of DOE-Owned Plant and Capital Equipment	Annual by 9/15	G/H
Excess Personal Property Furnished non-federal Recipients Annual 41 CFR 101-43.4701C; 41 CFR 109-43.4701c	Annual	G/H
Exchange/Sale Report 41 CFR 102.39.75	Annual	G/H
NRC Property held at DOE Facilities Report NRC Mgmt Directive 11.7, Part IX	Annual	G/H
Balanced Score Card Plan DOE HQ	Annual	G/H
Balanced Score Card Self Assessment Report DOE HQ	Annual	G/H
Termination Inventories FAR Part 45, Subpart 45.508	Upon termination or completion of contract	G
FIMS QA Plan DOE O 430.1B	Annual	G
Review of Utilization of Real Property DOE O 430.1B	Annual	G
Other Real Estate Reports by DOE O 430.1B	As requested	G
Federal Automotive Statistical Tool DOE HQ EO13149	Annual	System Generated
Government Property Missing, Lost Damaged or Theft Report 41 CFR 109-1.5112 and 1.5113	Annual	G
Government Property at Subcontractors Facility Report	Annually by 8/31	A/C/I/J
Financial Property Reporting (Assets by Type)	Quarterly (ending 11/30, 2/28, 5/31, and 8/31)	A/C/I/J
VII. American Recovery and Reinvestment Act of 2009		
Quarterly Staffing Report (summary of jobs "created" or "retained" by the contractor and first tier subcontractors)	Quarterly	A/B/C
Contract Performance Report (Refer to OMB No. 0704-0188 or DD FORM 2734/1, MAR 05) :Format 1 - Work Breakdown Structure, Format 3 - Baseline, and Format 5 - Explanations and Problem Analyses	Monthly	A/B/C
Milestone report from Primavera reflecting status of all milestones being reported with columns for the scope, original planned date, current planned date, and the actual date the milestone was completed	Monthly	A/B/C
Funds management report by Budgeting & Reporting (B&R) codes that identifies the amount of funds obligated to the contract and the amount of funds obligated to the contractor, and committed and expended by the contractor	Monthly	A/B/C/J

List of Government Property - Furnished

DE-RP05-08OR23286
Section J
Attachment B

List of Government Property - Furnished
DE-EM0000323
Section J, Attachment B

<u>EQ No</u>	<u>SME</u>	<u>EQ Type</u>	<u>Fxd Asst ID</u>	<u>Description</u>	<u>Acq'n Date</u>	<u>Acq'n Cost</u>	<u>Condtn Code</u>	<u>Make</u>	<u>Model</u>	<u>Serial Number</u>
1	CH		C-213	5 Ton BBA Hoist*	1/1/2006	\$4,000	4 - Usable	Ashley Sling/Ha	ER050L-5ASY4437	C-213
2	CH	E	C-602	BBA Breathing Air Compressor	11/1/2005	\$43,000	4 - Usable	Pioneer-Hanshin	PH30AM-S	C-602
3	CH	E	T-BB-342-D-M	BBA Downdraft Table	1/1/2006	\$61,000	4 - Usable	Premier-342	Custom	T-BB-342-D-ME-001
4	CH	E	B-213B	BBA Exhaust Blower	11/1/2005	\$5,750	4 - Usable	Rogers&Morgan	T-BB-186-D-ME-0	B-213B
5	CH		F-213B	BBA Exhaust Filter Housing*	11/1/2005	\$40,000	4 - Usable	Flanders	Dual Train	F-213B
6	CH	E	B-213A	BBA Supply Blower	11/1/2005	\$5,750	4 - Usable	Rogers&Morgan	Hartzell	B-213A
7	CH	E	F-213A, T-CM	BBA Supply Filter Housing	11/1/2005	\$17,500	4 - Usable	Camfill Farr	A079T9142-PB100	F-213A, T-CM-153-
8	CH		Rm 224	Box Breakdown Area Airlock	11/1/2005	\$5,000	4 - Usable	NFS-RPS	Custom-4518	Rm 224
9	CH		BBA-Rm 213	CH BBA Enclosure*	11/1/2005	\$598,200	4 - Usable	NFS-RPS	Custom-4518	BBA-Rm 213
10	CH		CHGB	CH Glovebox	11/1/2005	\$2,200,000	4 - Usable	Premier	PO#044397	CHGB
11	CH	E	GB Water Mis	CHGB Water Mist System	11/1/2005	\$75,000	4 - Usable	ORR Protection	Marioff MAU 150	GB Water Mist
12	CH	E	T-CH-276-X-M	CHSA Conveyor/Shield System	1/1/2006	\$254,000	4 - Usable	Brozelco	Hytrol 205R-303	T-CH-276-X-ME-001
13	CH	E	X-BAS851	CHST Breathing Air Bottle/Syst	11/1/2005	\$10,000	4 - Usable	CGA approved	300 SCF	X-BAS851
14	CH		GB Compactor	GB Compactor*	11/1/2005	\$100,000	4 - Usable	Vestil Mfg. Cor	HDC-900-IDC	GB Compactor
15	CH	E	T-CH-FW-D-PR	HSGS Hydrogen Supply System	11/1/2005	\$40,000	4 - Usable	Various	Various	T-CH-FW-D-PR-001
16	CH	E	T-CM-359-M-O	Kaeser Breathing Air System	11/1/2005	\$14,000	4 - Usable	A&W Compressor	KBS-103	T-CM-359-M-OP-001
17	CH		T-SN-FW-S-ME	Local Air Mover/Neg. Air Mach.	11/1/2005	\$4,000	4 - Usable	Portable HEPA	1,200 CFM	T-SN-FW-S-ME-206
18	CH	E	X-BAS881	NST Breathing Air Bottle/Syste	1/1/2006	\$10,000	4 - Usable	CGA approved	300 SCF	X-BAS881
19	CH	E	1445	Wall Mount Enclosure	7/7/2006	\$635	1 - New	Blackbox	BLA-RM232A-R2	
20	CH	E	T-CH-334-D-M	Wall Mount Jib Crane	11/1/2005	\$4,000	4 - Usable	McMaster Carr 3	311-2-08	T-CH-334-D-ME-001
21	CON	S	2224	Ladder, 12' Step			4 - Usable	Werner	7412	NA
22	CON	S	2222	Ladder, 12' Step			4 - Usable	Werner	7412	NA
23	CON	S	2227	Ladder, 16' extension			4 - Usable	Werner	D6216-2	
24	CON	S	2231	Ladder, 24' Extension			4 - Usable	Werner	D7412-2	
25	CON	S	2225	Ladder, 24' Extension			4 - Usable	Louisville Ladd	1-3022-24	
26	CON	S	2226	Ladder, 24' Extension			4 - Usable	Louisville Ladd	1-3022-24	
27	CON	E	2217	28,000 lb. cap spreader bar			4 - Usable	Single-purpose		
28	CON	E	2230	Fuel Tank, 300 gallon		\$2,000	4 - Usable	Modern Welding		
29	CON	S	2223	Ladder, 6' step			4 - Usable	Werner	6206	NA
30	CON		2221	BBA /GB Interface			1 - New	Brozelco	NA	NA
31	CON	E	2218	Forklift dump hopper			4 - Usable	T&S Equipment	HD-100-MD	
32	CON	E	2219	Forklift dump hopper			4 - Usable	T&S Equipment	HD-100-MD	
33	CON	E	2220	Forklift dump hopper			4 - Usable	T&S Equipment	HD-100-MD	
34	CON	E	2209	Cage, gas bottle			4 - Usable	American Standa		
35	CON		2210	Cage, gas bottle			4 - Usable	American Standa	unmarked	unmarked
36	CON	E	2211	Cage, gas bottle			4 - Usable	American Standa		
37	CON	E	2212	Cage, gas bottle			4 - Usable	American Standa		
38	CON	E	2213	Cage, gas bottle			4 - Usable	American Standa		
39	CON	E	2232	Cage, gas bottle			4 - Usable	American Standa		
40	CON	E	2233	Cage, gas bottle			4 - Usable	American Standa		
41	CON	E	2234	Cage, gas bottle			4 - Usable	American Standa		

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42	CON	E	2228	Hand crank, gas tank			4 - Usable	Tuthill Transfe	Series 100/Mode	
43	CON	E	2229	Hand crank, gas tank			4 - Usable	Tuthill Transfe	Series 100/Mode	
44	CON	E	2216	Prototype RH cask overpack	5/2/2006	\$3,800	4 - Usable	Tec-Fab	Prototype	
45	CON	E	2214	Spill container, rotary top			4 - Usable	Engel	1646RTC	
46	CON	E	2215	Spill container, rotary top			4 - Usable	Engel	1646RTC	
47	FN	E	1026	Automated Ext Defibrillator	4/3/2006	\$1,595	4 - Usable	Zoll		
48	FN	E	1037	Automated Ext Defibrillator	4/3/2006	\$1,595	4 - Usable	Zoll		
49	IT		1507	Fax machine			4 - Usable	Toshiba	DP85F	AJ536
50	FN	E	1019	File Cabinet, Fireproof	4/24/2006	\$890	4 - Usable	Fireking	2 Drawer	FL2006010134
51	FN	E	2300	File Cabinet, Fireproof	4/24/2006	\$890	4 - Usable	Fireking	2 Drawer	FL2006037159
52	FN	E	1007	File Cabinet, Fireproof		\$1,275	4 - Usable	Fireking	4 Drawer	FL2005271030
53	FN	E	1029	File Cabinet, Fireproof	1/5/2006	\$1,275	4 - Usable	Fireking	Fire King 4 dr	FL2005271089
54	FN	E	1028	File Cabinet, Fireproof	1/5/2006	\$1,275	4 - Usable	Fireking	Fire King 4 dr	FL2005271046
55	FN	E	1030	File Cabinet, Fireproof	1/5/2006	\$1,275	4 - Usable	Fireking	Fire King 4 dr	FL2006012240
56	FN	E	1032	File Cabinet, Fireproof	1/5/2006	\$1,275	4 - Usable	Fireking	Fire King 4 dr	FL2005296076
57	FN	E	1031	File Cabinet, Fireproof	1/5/2006	\$1,275	4 - Usable	Fireking	4 drawer	FL2005293191
58	FN	E	1033	File Cabinet, Fireproof	1/5/2006	\$1,275	4 - Usable	Fireking	Fire King 4 dr	FL2005393185
59	FN	E	1034	File Cabinet, Fireproof	12/1/2005	\$1,275	4 - Usable	Fireking	Fire King 4 dr	FL2005270189
60	FN	E	1035	File Cabinet, Fireproof	12/1/2005	\$1,275	4 - Usable	Fireking	Fire King 4 dr	FL2005296054
61	FN	E	1014	File Cabinet, Fireproof	12/1/2006	\$1,275	4 - Usable	Fireking	Fireking	FL20052700188
62	FN	E	1027	File Cabinet, Fireproof		\$800	4 - Usable	Fireking	4 Drawer	FL2003005049
63	FN	E	1036	File Cabinet, Fireproof	12/1/2005	\$1,275	4 - Usable	Fireking	Fire King 4 dr	FL2003029217
64	FN	E	1000	Workstation (4 total): 3 work	1/24/2006	\$500	4 - Usable	Herman Miller		
65	FN	E	1010	Workstation: 3 work surfaces,	7/5/2006	\$750	4 - Usable	Herman Miller		
66	FN	E	1011	Workstation: 3 work surfaces,	7/5/2006	\$750	4 - Usable	Herman Miller		
67	FN	E	1012	Workstation: 3 work surfaces,	7/5/2006	\$750	4 - Usable	Herman Miller		
68	FN	E	1013	Workstation: 3 work surfaces,	7/5/2006	\$750	4 - Usable	Herman Miller		
69	FN	E	1008	Workstation: 3 work surfaces,	7/5/2006	\$650	4 - Usable	Herman Miller		
70	FN	E	1009	Workstation: 3 work surfaces,	7/5/2006	\$650	4 - Usable	Herman Miller		
71	FN	E	1001	Workstation: 3 work surfaces,	1/24/2006	\$500	4 - Usable	Herman Miller		
72	FN	E	1002	Workstation: 3 work surfaces,	1/24/2006	\$500	4 - Usable	Herman Miller		
73	FN	E	1003	Workstation: 3 work surfaces,	1/24/2006	\$500	4 - Usable	Herman Miller		
74	FN	E	1015	Workstation: 3 work surfaces	8/14/2006	\$750	4 - Usable	Herman Miller		
75	FN	E	1016	Workstation: 3 work surfaces	8/14/2006	\$750	4 - Usable	Herman Miller		
76	FN	E	1017	Workstation: 3 work surfaces	8/14/2006	\$750	4 - Usable	Herman Miller		
77	FN	E	1018	Workstation: 3 work surfaces	8/14/2006	\$750	4 - Usable	Herman Miller		
78	FN	E	1021	Workstation: 3 work surfaces	5/22/2003	\$1,451	4 - Usable	Herman Miller		
79	FN	E	1022	Workstation: 3 work surfaces	5/22/2003	\$1,451	4 - Usable	Herman Miller		
80	FN	E	1509	Workstation: 3 work surfaces	5/22/2003	\$1,451	R - Removed	Herman Miller		
81	FN	E	1024	Workstation: 3 work surfaces	5/22/2003	\$1,451	R - Removed	Herman Miller		
82	FN	E	1025	Workstation: 3 work surfaces	5/22/2003	\$1,451	R - Removed	Herman Miller		
83	FN	E	1004	Workstation: pedestels, 1 shel	7/5/2006	\$650	4 - Usable	Herman Miller		
84	FN	E	1005	Workstation: pedestels, 1 shel	7/5/2006	\$650	4 - Usable	Herman Miller		
85	FN	E	1006	Workstation	7/5/2006	\$650	4 - Usable	Herman Miller		
86	HSGS	E	2342	Temperature control cover	4/1/2006	\$7,271	4 - Usable	Nucfil	fabricated	NA

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88	HSGS		1481	Turbo-molecular pump for GC/MS	4/1/2006	\$7,278	1 - New	Varian	V-70/P/N 969-93	219723
90	HSGS	E	Flexible fab	A size cylinder jacket	1/23/2006	\$1,035	4 - Usable	Scott Specialty	55ALD2G120P	
91	HSGS	E	Flexible fab	A size cylinder jacket	1/23/2006	\$1,035	4 - Usable	Scott Specialty	55ALD2G120P	
92	HSGS	E	Flexible fab	A size cylinder jacket	1/23/2006	\$1,035	4 - Usable	Scott Specialty	55ALD2G120P	
93	HSGS	E	Flexible fab	A size cylinder jacket	1/23/2006	\$1,035	4 - Usable	Scott Specialty	55ALD2G120P	
94	HSGS	E	Flexible fab	AL size cylinder jacket	1/23/2006	\$1,015	4 - Usable	Scott Specialty	55ALDG120P	
95	HSGS	E	Flexible fab	AL size cylinder jacket	1/23/2006	\$1,015	4 - Usable	Scott Specialty	55ALDG120P	
96	HVAC	E	B-011	200 HP-Var Spd. Ventilation Bl		\$65,000	4 - Usable	Barron Fan	BC32	B-011
97	HVAC	E	B-012	200 HP-Var Spd. Ventilation Bl		\$65,000	4 - Usable	Barron Fan	BC32	B-012
98	HVAC	E	B-013	200 HP-Var Spd. Ventilation Bl		\$65,000	4 - Usable	Barron Fan	BC32	B-013
99	HVAC		F-011	4 Stage HEPA Filter Bank*		\$214,533	4 - Usable	Flanders	BG1-4H6W	F-011
100	HVAC		F-012	4 Stage HEPA Filter Bank*		\$214,533	4 - Usable	Flanders	BG1-4H6W	F-012
101	HVAC		F-013	4 Stage HEPA Filter Bank*		\$214,533	4 - Usable	Flanders	BG1-4H6W	F-013
102	HVAC	E	DH-01	Duct Heater		\$16,667	4 - Usable	Indeeco	ZUB-K-U6-L6-4	DH-01
103	HVAC	E	DH-02	Duct Heater		\$16,667	4 - Usable	Indeeco	ZUB-K-U6-L6-4	DH-02
104	HVAC	E	DH-03	Duct Heater		\$16,667	4 - Usable	Indeeco	ZUB-K-U6-L4-4	DH-03
105	HVAC	E	DH-04	Duct Heater		\$16,667	4 - Usable	Indeeco	ZUB-K-U5-L5-5	DH-04
106	HVAC	E	DH-05	Duct Heater		\$16,667	4 - Usable	Indeeco	ZUB-K-U4-L4-4	DH-05
107	HVAC	E	DH-06	Duct Heater		\$16,667	4 - Usable	Indeeco	ZUB-K-U4-L6-4	DH-06
108	HVAC	E	N/A	HVAC System (Ducts, Grills, Di		\$730,000	4 - Usable	TCI	N/A	N/A
109	HVAC	E	F-231	Local Return Air Filter Module		\$15,000	4 - Usable	Air Filters Nor	INTEGRIFRAME	F-231
110	HVAC		ME-011	Moisture/Flow Indication Syste		\$51,031	4 - Usable	Desmarais		ME-011
111	HVAC	E	AHU-004	Supply Air Handling Unit		\$42,000	4 - Usable	York	CP530	AHU-004
112	HVAC	E	AHU-005	Supply Air Handling Unit		\$42,000	4 - Usable	York	CP530	AHU-005
113	IT	E	1423	1.0 TB TeraStation Pro NAS	5/31/2006	\$874	1 - New	Buffalo Technol	TS-1.0TGL/R5	4.58E+13
114	IT	E	1424	1.0 TB TeraStation Pro NAS	5/31/2006	\$874	1 - New	Buffalo Technol	TS-1.0TGL/R5	4.98E+13
115	IT	E	1425	2.0 TB TeraStation Pro NAS	8/30/2006	\$1,949	1 - New	Buffalo Tech	TS-2.0TGL/R5	4.58E+13
116	IT	S	1426	24 Port GB Ethernet Switch	6/23/2006	\$283	1 - New	Dell	PowerConnect 27	4TNT291
117	IT	S	1427	24 Port GB Ethernet Switch	6/23/2006	\$283	1 - New	Dell	PowerConnect 27	FYNT291
118	IT	S	1433	24 Port GB Ethernet Switch	6/23/2006	\$283	1 - New	Dell	PowerConnect 27	CTNT291
119	IT	S	1428	24 Port GB Ethernet Switch	6/23/2006	\$283	1 - New	Dell	PowerConnect 27	BXNT291
120	IT	E	1429	24 Port GB Ethernet Switch	6/23/2006	\$283	1 - New	Dell	PowerConnect 27	DYNT291
121	IT	S	1430	24 Port GB Ethernet Switch	6/23/2006	\$283	1 - New	Dell	PowerConnect 27	HYNT291
122	IT	S	1431	24 Port GB Ethernet Switch	6/23/2006	\$356	1 - New	Dell	PowerConnect 27	9ZNT291
123	IT	S	1432	24 Port GB Ethernet Switch	6/23/2006	\$283	1 - New	Dell	PowerConnect 27	HXNT291
124	IT	S		24 port Router	7/15/2006		4 - Usable	Cisco	Catalyst 3500	3882A957
125	IT	E,S	1405	Monitor, Flat Panel	6/26/2005	\$1,965	1 - New	Dell	30 inch UltraSh	9JHFQ91
126	IT	E,S	1406	Monitor, Flat Panel	6/26/2005	\$1,965	1 - New	Dell	30 inch UltraSh	7JHFQ91
127	IT	E,S	1407	Monitor, Flat Panel	6/26/2005	\$1,965	1 - New	Dell	30 inch UltraSh	1JHFQ91
128	IT	E	1442	42U Rack Mount Enclosure	6/1/2006	\$2,123	1 - New	Dell	PowerEdge 4210	D0DR2B1
129	IT	S		8-Port Rackmount KVM Switch	6/1/2006	\$408	1 - New	Dell	B004-008	TL4972-1
130	IT	E,S	1476	48 port switch	7/15/2006	\$2,500	4 - Usable	Cisco	Catalyst 2950	FCZ0936X276
131	IT	E,S	1400	Computer, Desktop	9/14/2006	\$1,545	1 - New	Dell	OptiPlex GX620	JMJYSB1
132	IT	S	2196	Display, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP	N/A
133	IT	S	2204	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP	N/A

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134	IT	S	2206	Display, Flat Panel	9/5/2006	\$268	1 - New	Dell	1907FP		
135	IT	S	1579	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP		
136	IT	E,S	2207	Computer, Desktop	10/17/2006	\$1,676	1 - New	Dell	GX620		9F780C1
137	IT	E,S	2208	Computer, Desktop	10/17/2006	\$1,676	1 - New	Dell	GX620		BF780C1
138	IT	E	2417	Computer, Desktop	10/17/2006	\$1,676	1 - New	Dell	GX620		CF780C1
139	IT	E	1485	Computer, Desktop	11/21/2006	\$1,545	1 - New	Dell	GX620		9YHT4C1
140	IT	E	1487	Computer, Desktop	11/21/2006	\$1,545	1 - New	Dell	GX620		1ZHT4C1
141	IT		1394	Computer, Desktop	9/14/2006	\$1,545	1 - New	Dell	OptiPlex GX620		CMJYSB1
142	IT	E,S	1386	Computer, Desktop	9/16/2006	\$1,545	1 - New	Dell	OptiPlex GX620		2NJYSB1
143	IT	E,S	1382	Computer, Desktop			4 - Usable	IBM	IBM ThinkCentre		KCCN6NB
144	IT	E,S	1384	Computer, Desktop	9/16/2005	\$1,545	1 - New	Dell	OptiPlex GX620		1NJYSB1
145	IT	E,S	1390	Computer, Desktop	9/16/2006	\$1,545	1 - New	Dell	OptiPlex GX620		6NJYSB1
146	IT	E,S	1400	Computer, Desktop	9/16/2006	\$1,545	1 - New	Dell	OptiPlex GX620		JMJYSB1
147	IT	E,S	1392	Computer, Desktop	9/16/2006	\$1,546	1 - New	Dell	OptiPlex GX620		9MJYSB1
148	IT	E,S	1396	Computer, Desktop	9/16/2006	\$1,545	1 - New	Dell	OptiPlex GX620		DMJYSB1
149	IT	E,S	1388	Computer, Desktop	9/16/2006	\$1,545	1 - New	Dell	OptiPlex GX620		3NJYSB1
150	IT	E,S	1379	Computer, Desktop	12/1/2005		4 - Usable	Dell	Dimension 3000		4SS4G61
151	IT	E	1311	Computer, Desktop	7/15/2006	\$750	4 - Usable	Hewlett Packard	DC5100SFF		2ub53803fv
152	IT	E	1356	Computer, Desktop	7/15/2006	\$750	4 - Usable	Hewlett Packard	DC5100MT		2ub53803j3
153	IT	E	1300	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100SFF		2ub53803fh
154	IT	E	1313	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100SFF		2ub53803fw
155	IT	E	1316	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100SFF		2ub53803fz
156	IT	E	1321	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100SFF		2ub53803g4
157	IT	E,S	1305	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100SFF		2ub53803fn
158	IT	E,S	1359	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100MT		2ub53803j5
159	IT	E	1325	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100SFF		2ub53803g8
160	IT	E	1335	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100MT		2ub53803hd
161	IT	E	1355	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100MT		2ub53803j2
162	IT	E	1319	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100SFF		2ub53803g2
163	IT	E	1326	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100SFF		2ub53803g9
164	IT	E	1352	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100MT		2ub53803hy
165	IT	E	1398	Computer, Desktop	9/16/2006	\$1,545	1 - New	Dell	OptiPlex GX620		GMJYSB1
166	IT	E	1310	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100SFF		2ub53803ft
167	IT	E	1318	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100SFF		2ub53803g1
168	IT	E	1333	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100SFF		2ub53803gj
169	IT	E,S	1349	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100MT		2ub53803hv
170	IT	E,S	1304	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100SFF		2ub53803fm
171	IT	E,S	1307	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100SFF		2ub53803fq
172	IT	E	1314	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100SFF		2ub53803fx
173	IT	E	1320	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100SFF		2ub53803g3
174	IT	E	1328	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100SFF		2ub53803gc
175	IT	E	1336	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100MT		2ub53803hf
176	IT	E,S	1364	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100MT		2ub53803jb
177	IT	E,S	1339	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100MT		2ub53803hj
178	IT	E	1341	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100MT		2ub53803hl

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179	IT	E,S	1378	Computer, Desktop	12/1/2005		4 - Usable	Dell	Dimension 3000	2SS4G61
180	IT	E	1366	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100MT	2ub53803jc
181	IT	E	1351	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100MT	2ub53803hx
182	IT	E,S	1362	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100MT	2ub53803j8
183	IT	E,S	1381	Computer, Desktop			4 - Usable	Dell	GX260	H7K6521
184	IT	E,S	1342	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100MT	2ub53803hm
185	IT	E,S	1327	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100SFF	2ub53803gb
186	IT	E,S	1330	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100SFF	2ub53803gf
187	IT	E,S	1360	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100MT	2ub53803j6
188	IT	E	1317	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100SFF	2ub53803g0
189	IT	E,S	1302	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100SFF	2ub53803fk
190	IT	E,S	1340	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100MT	2ub53803hk
191	IT	E,S	1329	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100SFF	2ub53803gd
192	IT	E,S	1365	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100MT	2ub53803jo
193	IT	E	1334	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100SFF	2ub53803gk
194	IT	E,S	1344	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100MT	2ub53803hp
195	IT	E	1308	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100SFF	2ub53803fr
196	IT	E,S	1309	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100SFF	2ub53803fs
197	IT	E,S	1345	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100MT	2ub53803hq
198	IT	E,S	1361	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100MT	2ub53803j7
199	IT	E,S	1374	Computer, Desktop	7/15/2006		4 - Usable	IBM	8183	KCWC5YL
200	IT	E	1322	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100SFF	2ub53803g5
201	IT	E,S	1306	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100SFF	2ub53803fp
202	IT	E,S	1337	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100MT	2ub53803hg
203	IT	E,S	1354	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100MT	2ub53803j1
204	IT	E,S	1347	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100MT	2ub53803hs
205	IT	E,S	1363	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100MT	2ub53803j9
206	IT	E	1323	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100SFF	2ub53803g6
207	IT	E	1346	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100MT	2ub53803hr
208	IT	E,S	1301	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100SFF	2ub53803fj
209	IT	E,S	1332	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100SFF	2ub53803gh
210	IT	E,S	1350	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100MT	2ub53803hw
211	IT	E,S	1338	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100MT	2ub53803hh
212	IT	E,S	1358	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100MT	2ub53803j4
213	IT	E	1353	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100MT	2ub53803hz
214	IT	E	1315	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100SFF	2ub53803fy
215	IT	E,S	1331	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100SFF	2ub53803gg
216	IT	E,S	1348	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100MT	2ub53803ht
217	IT	E,S	1303	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100SFF	2ub53803fl
218	IT	E,S	1343	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100MT	2ub53803hn
219	IT	E,S	1324	Computer, Desktop	7/15/2006	\$571	4 - Usable	Hewlett Packard	DC5100SFF	2ub53803g7
220	IT	E	1375	Computer, Desktop	7/15/2006		4 - Usable	IBM	8183	KCTA4AR
221	IT	E	1376	Computer, Desktop	7/15/2006		4 - Usable	IBM	8183	KLVYWA7
222	IT	E	1377	Computer, Desktop	12/1/2005		4 - Usable	Dell	Dimension 3000	HRS4G61
223	IT	E	2425	Computer, Desktop	11/21/2006	\$1,545	1 - New	Dell	GX620	CYHT4C1

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224	IT	E	2426	Computer, Desktop	11/21/2006	\$1,545	1 - New	Dell	GX620	DYHT4C1
225	IT	E	2427	Computer, Desktop	11/21/2006	\$1,545	1 - New	Dell	GX620	7YHT4C1
226	IT	E	1440	Firewall	6/30/2006	\$4,826	1 - New	SonicWALL	PRO 4060	0006B102B168
227	IT	S	2422	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP	N/A
228	IT	S	1482	Monitor, Flat Panel	10/25/2006	\$578	1 - New	Dell	2007FPW	N/A
229	IT	S	1483	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP	N/A
230	IT	S	1484	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP	N/A
231	IT	S	1488	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP	N/A
232	IT	S	1559	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP	N/A
233	IT	S	1578	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP	N/A
234	IT	S	2111	Monitor, Flat Panel	10/17/2006	\$417	1 - New	Dell	2007FPW	N/A
235	IT	S	1490	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP	N/A
236	IT		1422	Monitor, Flat Panel	10/25/2006	\$578	1 - New	Dell	2007FP	N/A
237	IT		1486	Computer, Laptop	11/21/2006	\$2,873	1 - New	Dell	M65	9HK15C1
238	IT		2429	Computer, Laptop	11/21/2006	\$2,873	1 - New	Dell	M65	3JK15C1
239	IT		1449	Plotter, Large Format	7/15/2006		4 - Usable	Hewlett Packard	DesignJet 650c	ESB4A19540
240	IT		1455	Plotter, Large Format	7/15/2006		4 - Usable	Hewlett Packard	Design Jet 1055	ESA9416514
241	IT	E	1451	Laser Printer	7/15/2006		4 - Usable	Hewlett Packard	LaserJet 8150dn	JPDLM24523
242	IT	E	1785	Laser Printer	7/27/2006	\$1,675	1 - New	Dell	5310n	FFTHN81
243	IT	E	1452	Laser Printer	7/15/2006		4 - Usable	Hewlett Packard	LaserJet 8150N	JPDL575613
244	IT		1446	Laser Printer	7/15/2006		4 - Usable	Hewlett Packard	LaserJet 8150DN	JPBLL79350
245	IT		1450	Laser Printer	7/15/2006		4 - Usable	Hewlett Packard	LaserJet 8000DN	USAJ000095
246	IT	E,S	1435	Laser Printer	7/27/2006	\$442	1 - New	Dell	1710n	CT3G197
247	IT	E,S	1459	Laser Printer	12/15/2005	\$764	1 - New	Hewlett Packard	LaserJet 2430n	CNGKJ16484
248	IT		1453	Laser Printer	7/15/2006		4 - Usable	Hewlett Packard	LaserJet 8150dn	JPB1178664
249	IT	S	1454	Laser Printer	7/15/2006		4 - Usable	Hewlett Packard	LaserJet 2100	CN95B31537
250	IT	E	1438	Laser Printer	7/27/2006	\$1,675	1 - New	Dell	5310n	BRRHN81
251	IT	E	1460	Laser Printer	10/26/2005	\$3,099	4 - Usable	Hewlett Packard	LaserJet 8150DN	SJPDLR70817
252	IT	E,S	1457	Laser Printer	4/24/2006	\$768	1 - New	Hewlett Packard	LaserJet 2430n	CNGKJ69069
253	IT	E	1447	Laser Printer	7/15/2006		4 - Usable	Hewlett Packard	LaserJet 8000DN	USAJ000037
254	IT	E,S	1458	Laser Printer	4/24/2006	\$768	1 - New	Hewlett Packard	LaserJet 2430n	CNGKJ57266
255	IT	S	1477	Laser Printer	9/1/2004		4 - Usable	Hewlett Packard	LaserJet 5000	1026073
256	IT	E,S	1434	Laser Printer	7/27/2006	\$442	1 - New	Dell	1710n	3S3G191
257	IT	E,S	1436	Laser Printer	7/27/2006	\$442	1 - New	Dell	1710n	CT3G191
258	IT	E,S	1456	Laser Printer	12/15/2005	\$764	1 - New	Hewlett Packard	LaserJet 2430n	CNGKJ16493
259	IT	E,S	2421	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP	
260	IT	S	2199	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP	
261	IT	S	2200	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP	
262	IT	E,S	2201	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP	
263	IT	S	2202	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP	
264	IT	S	2203	Monitor, Dell Panel	10/17/2006	\$268	1 - New	Dell	1907FP	
265	IT	E,S	2197	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	2007WFPB	
266	IT	E,S	1369	Computer, Laptop	7/15/2006	\$1,005	4 - Usable	IBM	type 2373	99-4V3HG
267	IT	E,S	1372	Computer, Laptop	7/15/2006	\$1,196	4 - Usable	IBM	X31	99-LBXXL
268	IT	E,S	1367	Computer, Laptop	7/15/2006	\$1,057	4 - Usable	IBM	type 1830	99-CLL89

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269	IT	E,S	1368	Computer, Laptop	7/15/2006		4 - Usable	Hewlett Packard		6220	CNU5471CLD
270	IT	E,S	1371	Computer, Laptop	7/15/2006	\$1,200	4 - Usable	IBM	type 2373		99-3F0HG
271	IT	E,S	1370	Computer, Laptop	7/15/2006		4 - Usable	IBM	Type 2373		99-BN6AD
272	IT	E,S	1416	Computer, Laptop	9/10/2006	\$3,237	1 - New	Dell	Precision M65		GJZKQB1
273	IT	E,S	1414	Computer, Laptop	9/10/2006	\$3,237	1 - New	Dell	Precision M65		JHZKQB1
274	IT	E,S	1418	Computer, Laptop	9/10/2006	\$3,237	1 - New	Dell	Precision M65		GKZKQB1
275	IT	E,S	2418	Computer, Laptop	10/25/2006	\$2,500	1 - New	Dell	M65		7RPX0C1
276	IT	E,S	2419	Computer, Laptop	10/25/2007	\$2,500	1 - New	Dell	M65		DSPX0C1
277	IT	E,S	2420	Computer, Laptop	10/25/2006	\$2,500	1 - New	Dell	M65		FQPX0C1
278	IT	E,S	1531	Projector	5/25/2006	\$1,437	4 - Usable	In-Focus	LP600		1SAMRV60100176
279	IT	E,S	1532	Projector	6/9/2006	\$1,437	4 - Usable	In-Focus	LP600		1SAMRV60100187
280	IT	E		Rackmount UPS	7/1/2006		4 - Usable	APC	SUA1000RM2U		AS0416121349
281	IT	E	1439	Router	7/15/2006		4 - Usable	Cisco		1700	JAB04165058
282	IT	E,S	1464	Scanner	9/25/2006	\$803	1 - New	Xerox	Documate 520		611TW1063H2N13000
283	IT	E,S	1465	Scanner	9/25/2006	\$803	1 - New	Xerox	Documate 520		601TW106132N13000
284	IT	E,S	1461	Scanner	12/20/2005	\$943	1 - New	Xerox	Documate 252		531TW1057T2S14002
285	IT	E,S	1462	Scanner	2/15/2006	\$828	1 - New	Xerox	Documate 252		542TW105AE2S14004
286	IT	E,S	1463	Scanner	12/15/2005	\$828	1 - New	Xerox	Documate 252		509TW1052S2S13006
287	IT	E	1413	Server	7/15/2006		7 - Repairable	IBM	e-Server		KP-HAP90
288	IT	E	1409	Server	6/5/2006	\$6,698	1 - New	Dell	PowerEdge 2850		6PN53B1
289	IT	E	1410	Server	6/5/2006	\$6,698	1 - New	Dell	PowerEdge 2850		7PN53B1
290	IT	E	1411	Server	12/1/2005		4 - Usable	Dell	PowerEdge SC142		86XMG61
291	IT	E	1412	Server	7/15/2006	\$8,213	4 - Usable	IBM	e-Server		KP-DBL52
292	IT	E,S	2424	Terastation Pro 2.0	10/25/2006	\$1,877	1 - New	Buffalo	TS-2.OTGL/R5		4.58106E+13
293	IT	E,S	2423	Terastation Pro 2.0	10/25/2006	\$1,877	1 - New	Buffalo	TS-2.OTGL/R5		4.58106E+13
294	IT	E	1443	Uninterrupted Power Supply	7/1/2006		4 - Usable	APC	SUA2200		J50613007733
295	IT	E	1444	Uninterrupted Power Supply	7/9/2006	\$878	1 - New	APC	SUA2200		J50540007047
296	LS	E	NA	15'-19' scissor lift			4 - Usable	Skyjack	SJ-3-3219		-
297	LS		NA	Forklift, 8,000 lb. capacity			4 - Usable	JCB	Load-all		N/A
298	LS		NA	Copier			4 - Usable	Toshiba	e350		AI260
299	LS		NA	Copier			4 - Usable	Toshiba	e350		AI261
300	LS		NA	Copier			4 - Usable	Toshiba	e350		AI258
301	LS		N/A	Copier			4 - Usable	Toshiba	e350		AI263
302	LS		NA	Copier/Scanner/Printer			4 - Usable	Toshiba	E650		AF439
303	LS		N/A	Copier/Scanner/Printer			4 - Usable	Toshiba	e350		AI846
304	LS		NA	Desktop copier			4 - Usable	Toshiba		1370	AI723
305	LS		NA	Copier, Digital Color			4 - Usable	Toshiba	351C		AJ883
306	LS		NA	Copier/Scanner/Printer			4 - Usable	Sharp	AR-M620N		AJ779
307	LS		NA	Fax boards (5)			4 - Usable		AR-M620N-compatible		
308	LS			Copier/Scanner/Printer			1 - New	Toshiba	e350		
311	ME	S	2073	1/2" Electric Drill	1/1/2002		7 - Repairable	Craftsman	315-101120		A0205
312	ME	S	2078	1/2" Magnum Holeshooter Drill	1/1/2002		4 - Usable	Milwaukee	0234-1		514942
313	ME	S	2055	10 Ga Nibbler	1/1/2002		4 - Usable	Milwaukee		6880	630B406010057
314	ME	E	2046	10 Ton Hydraulic Ram Kit		\$729	4 - Usable	Grainger Mfg Co	32C69		
315	ME	S	2072	10" Compound Miter Saw	1/1/2002		4 - Usable	DeWalt	DW703		333148

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316	ME	S	2051	18v Cordless Drill Driver	1/1/2002		4 - Usable	DeWalt	DC987		826988
317	ME	S	2065	3" X 21" VS Best Sander	1/1/2002		4 - Usable	DeWalt	DW433		4.36E+12
318	ME	S	2043	3/4" Magna Drill	1/1/2002		4 - Usable	Milwaukee	4262-1		602A101312037
319	ME	S	2064	3/8" Drill	1/1/2002		4 - Usable	Porter Cable		2610	017097A4098
320	ME	S	2057	3/8" Magnam Holeshooter Drill	1/1/2002		R - Removed	Milwaukee		233021	055A502470192
321	ME	S	2061	3/8" Right Angle Drill	1/1/2002		4 - Usable	Milwaukee	0375-1		611B905143138
322	ME	S	2063	4" Grinder Right Angle	1/1/2002		4 - Usable	Milwaukee			
323	ME	S	2087	6' Step Ladder			4 - Usable	Werner		7406	
324	ME	S	2075	7 1/4 Worm Gear Drive	1/1/2002		R - Removed	Milwaukee		6377	620A4012
325	ME	S	2074	7 1/4" Gear Saw	1/1/2002		4 - Usable	Milwaukee		6377	620A4012300
326	ME	S	2053	8" Bench Grinder	1/1/2002		4 - Usable	Dayton	42909C		200104
327	ME		2066	Air Filter	1/1/2002		4 - Usable	Ace Industrial	73-601		73-001 0004721202
328	ME	S	2050	Cutting Torch w/ Small Bottles	1/1/2002		4 - Usable	Jentech			
329	ME		2090	Dial Test Indicator	1/1/2002		4 - Usable	Starrett	196A1Z		
330	ME	S	2086	Dremel Rotary Tool			4 - Usable	Robert Bosch		395	
331	ME		2082	Electric Pipe Bender	1/1/2002		4 - Usable	GreenLee Textro			
332	ME	E	2044	Electric Stabilizing Oven		\$540	4 - Usable	Phoenix Interna	16C		
333	ME	E	2045	End Prep Tool		\$675	4 - Usable	Wachsco Metabo	SBE1010PLUS		1.04E+09
334	ME		2081	Gangbox (JoBox) - Misc Fastene	1/1/2002		4 - Usable	Various			
335	ME		2079	Gangbox (JoBox) - Misc Fastene	1/1/2002		4 - Usable	Various			
336	ME		2080	Gangbox (Knack) - Misc Fastene	1/1/2002		4 - Usable	Various			
337	ME	E,S	2042	Gas Powered Air Compressor 5hp		\$695	4 - Usable	Dalton Electric	4B220B		96968
338	ME	S	2040	Gas Powered Leaf Blower	1/1/2002		4 - Usable	Weed Eater	FL 1500		
339	ME	S	2089	Hammer Drill	1/1/2002		4 - Usable	Hilti	TE-16-C		344734
340	ME	S	2060	Heat Gun	1/1/2002		4 - Usable	Wagner	MHT 3300		
341	ME		2084	Industrial Holesaw Kit			4 - Usable	Marxman Cutting			
342	ME	S	2052	Knack Small Tool Box - Weldin	1/1/2002		4 - Usable	Various			
343	ME		2070	Lazy Susan - Misc Swageloc and	1/1/2002		4 - Usable	Various			
344	ME		2083	Mechanical Bender	1/1/2002		4 - Usable	GreenLee Textro			
345	ME	S	2091	Micrometer Set	1/1/2002		4 - Usable	Starrett	ST436AZRLZ		
346	ME		2088	O Ring Valcanizing Kit	1/1/2002		4 - Usable			1195	
347	ME	S	2056	Orbital Super Sawzall	9/18/2006	\$200	X - Salvage	Milwaukee	6536-21		AGGC806390001
348	ME	S	2058	Orbital Super Sawzall	1/1/2002		4 - Usable	Milwaukee	6521-21		981C605010461
349	ME	S	2071	Porta-Band Saw	1/1/2002		4 - Usable	Milwaukee		6230	6.78E+12
350	ME	S	2092	Precision Measuring Tool	1/1/2002		4 - Usable	Craftsman	GT713677		
351	ME		2095	Ranger MX4Temperature Gun	1/1/2002		4 - Usable	CSI		515	5
352	ME		2093	RBM Collector	1/1/2002		R - Removed	CSI	2117A		
353	ME	E	2041	Rigid Pipe Thread Machine		\$870	4 - Usable	Ridge Tool Co	300-T2		ED78947J02
354	ME		2094	Sonic Scan	1/1/2002		4 - Usable	CSI			120019
355	ME	S	2054	Tool Box (Armstrong) - Misc Ha	1/1/2002		4 - Usable	Various			
356	ME	S	2059	Tool Box (Craftsman) - Misc Ha	1/1/2002		4 - Usable	Various			
357	ME	S	2068	Tool Box (Kennedy) - Misc Dril	1/1/2002		4 - Usable	Various			
358	ME	S	2067	Tool Box (Kennedy) - Misc Hilt	1/1/2002		4 - Usable	Various			
359	ME	S	2047	Torque Wrench 90-600 ft lb	1/1/2002		4 - Usable	Stanley Proto	J6020AB		
360	ME	S	2048	Victor Tig Rig Set up	1/1/2002		4 - Usable				

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361	ME	S	2076	VS Orbital Jigsaw			4 - Usable	DeWalt	DW 331		20062 649
362	ME	S	2049	Welding Machine	1/1/2002		4 - Usable	Miller	Maxstar 200		LCO18816
363	ME	S	2062	1 1/2" Die Grinder	1/1/2002		4 - Usable	DeWalt	DW887		74796
364	ME		2069	Chain Vice	1/1/2002		4 - Usable				
365	MET	E		0-2" Pressure Transducer	12/10/2003	\$2,490	4 - Usable	Air Monitor Cor	AQS-1		24927
366	MET			5 Step Gauge Block	10/1/2004		R - Removed	ATS			A19641
367	MET			5 Step Gauge Block	10/1/2004		R - Removed	ATS			A20614
368	MET	E	ICA	Bench Scale	10/10/2005	\$960	4 - Usable	Mettler Toledo	Speedweight		5352354-5DE
369	MET	E	ICA	Bench Scale	10/10/2005	\$960	4 - Usable	Mettler Toledo	Speedweight		5352353-5DE
370	MET	E	2274	Bench Scale	10/10/2005	\$960	4 - Usable	Mettler Toledo	Speedweight		5501181-5KG
371	MET			Calibration Weights	6/20/2003	\$198	R - Removed	Troemner			33751/752
372	MET	E	2269	Calibration Weights	4/15/2003	\$629	4 - Usable	Troemner			50530
373	MET	E	2284	Crane Scale	4/29/2003	\$2,095	4 - Usable	Dyna Link	MSI-7200RF		73618
374	MET	E,S	2272	Digital-Micro Ohmmeter	8/21/2003	\$2,667	4 - Usable	Chauvin-Acnoux	5600		05M40321DV
375	MET	E,S	2282	Documenting Process Calibrator	8/16/2003	\$2,995	4 - Usable	Fluke	741B		8188006
376	MET	E	2279	Electronic Manometer	12/10/2003	\$2,255	4 - Usable	Air Monitor Cor	ATE-100		9248
377	MET	E	2280	Electronic Micromanometer	9/28/2005	\$3,020	4 - Usable	Air Data	ADM-860C		M05616
378	MET	E,S	2283	Electronic Ultrasonic Thickness	10/1/2004	\$795	4 - Usable	Phase II Metrol	UTG-2000		A-0163
379	MET	S	2262	Infrared Thermometer	8/18/2005	\$150	R - Removed	Center	352		3081039
380	MET	S	2287	Infrared Thermometer	7/28/2006	\$150	R - Removed	Center	352		5.12E+07
381	MET	E,S	2270	Megohmmeter	8/21/2003	\$1,155	4 - Usable	AVO	MJ559		6410-867/020202/2
382	MET	E,S	2271	Megohmmeter	8/21/2003	\$1,155	4 - Usable	AVO	MJ559		6410-867/020602/2
383	MET	E	2275	Moisture Analyzer	12/30/2002	\$2,599	4 - Usable	Sartorius	MA-45		14506381
384	MET	E	2276	Moisture Analyzer	12/1/2003	\$2,599	4 - Usable	Sartorius	MA-45		15708077
385	MET	S	2277	Multimeter	10/8/2003		4 - Usable	Simpson	260 Series 6XPM		N/A
386	MET	E	2285	Platform Scale	4/25/2005	\$1,946	4 - Usable	Mettler Toledo	Hawk		1120303-1DE
387	MET	E	2286	Platform Scale	4/25/2005	\$2,172	4 - Usable	Mettler Toledo	Hawk		1120294-1DE
388	MET	E	S/N 84100702	Pressure Module	7/24/2003	\$995	4 - Usable	Fluke	700P07		84100702
389	MET	E,S	2278	Pressure Module	8/21/2003	\$1,073	4 - Usable	Fluke	700PD2		8.39E+07
390	MET	E,S	2289	Pressure Module	8/21/2003	\$1,661	4 - Usable	Fluke	700P29		81652905
391	MET	S	2266	Torque Wrench	9/23/2004	\$159	4 - Usable	Armstrong	64-086		4050251703
392	MET	S	2267	Torque Wrench	1/19/2005	\$159	R - Removed	Armstrong	64-086		4.04E+09
393	MET	S	2268	Torque Wrench	3/18/2005	\$159	R - Removed	Armstrong	64-086		4.05E+09
394	MET	S	2261	Torque Wrench	8/28/2003		R - Removed	Craftsman	34881		649719
395	MET	S	2263	Torque Wrench	5/24/2005		R - Removed	Armstrong	64-084		4.05E+09
396	MET	S	2264	Torque Wrench	9/24/2003		R - Removed	Armstrong	64-085		4.02E+09
397	MET	E,S	2273	Torque Wrench	12/9/2005	\$921	1 - New	Proto	J6141F		806900
398	MET	S	2265	Torque Wrench Micrometer Adjust	10/21/2004		R - Removed	CDI Torque Prod	1501MRPH		704500011
399	MET	S		TRU RMS Multimeter	9/18/2003	\$441	R - Removed	Fluke	FLK-87E-3		8216043
400	MET	S	2281	True RMS Clamp Meter	1/22/2004		R - Removed	Fluke	335		8.20E+07
401	MET			Weight	3/23/2004	\$99	R - Removed	Troemner			1
402	MET			Weight	3/23/2004	\$99	R - Removed	Troemner			2
403	MET			Weight	3/23/2004	\$99	R - Removed	Troemner			70148
404	MET			Weight	11/5/2005	\$276	R - Removed	Memphis Scale W			2R11
405	MET			Weight - 15#	10/10/2005	\$276	4 - Usable	Memphis Scale W			2M96

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406	MET	E	cannot tag c	Weight - 250#	4/29/2005	\$750	4 - Usable	Memphis Scale W			2KHZ
407	MET			Weight	10/27/2005	\$153	R - Removed	Memphis Scale W			2QZA
408	MET			Weight	10/27/2005	\$153	R - Removed	Memphis Scale W			2QAZ9
409	MET			Weight	10/19/2005	\$276	R - Removed	Memphis Scale W			2QAG
410	MET	E	cannot tag	Weight - 250#	10/27/2005	\$750	4 - Usable	Memphis Scale W			2QZ8
411	MET			Weights	9/25/2006	\$129	R - Removed	Memphis Scale W			30RB
412	MET			Weights	9/25/2006	\$129	R - Removed	Memphis Scale W	5#		30RC
413	MET			Weights	9/25/2006	\$144	R - Removed	Memphis Scale W			30RS
414	MET			Weights	9/25/2006	\$144	R - Removed	Memphis Scale W			30RT
415	MET			Weights	9/25/2006	\$144	R - Removed	Memphis Scale W			30RU
416	MET			Weights	9/25/2006	\$144	R - Removed	Memphis Scale W			30RV
417	MET			Weights	9/25/2006	\$144	R - Removed	Memphis Scale W			30RH
418	MET		cannot tag	Weight - 10#	9/25/2006	\$144	R - Removed	Memphis Scale W			30RI
419	MET			Weights	9/25/2006	\$144	R - Removed	Memphis Scale W			30RJ
420	MET		cannot tag	Weight - 10#	9/25/2006	\$144	R - Removed	Memphis Scale W			30RK
421	MET			Weights	9/25/2006	\$144	R - Removed	Memphis Scale W			30RL
422	MET			Weights	9/25/2006	\$144	R - Removed	Memphis Scale W			30RM
423	MET			Weights	9/25/2006	\$144	R - Removed	Memphis Scale W			30RN
424	MET			Weights	9/25/2006	\$144	R - Removed	Memphis Scale W			30RP
425	MET			Weights	9/25/2006	\$144	R - Removed	Memphis Scale W			30RQ
426	MET			Weights	9/25/2006	\$144	R - Removed	Memphis Scale W			30RR
427	MET	E		Weights	9/25/2006	\$175	R - Removed	Memphis Scale W			30PF
428	MET	E	cannot tag	Weight - 25#	9/25/2006	\$175	R - Removed	Memphis Scale W			30PG
429	MET	E		Weights	9/25/2006	\$299	R - Removed	Memphis Scale W	15#		30PC
430	MET	E		Weights	9/25/2006	\$299	R - Removed	Memphis Scale W			30PD
431	MET	E		Weights	9/25/2006	\$299	R - Removed	Memphis Scale W			30PE
432	MET	E	cannot tag c	Weights	9/25/2006	\$502	4 - Usable	Memphis Scale W	100#		30RD
433	MET	E	cannot tag c	Weights	9/25/2006	\$502	4 - Usable	Memphis Scale W			30RE
434	MET	E	cannot tag c	Weights	9/25/2006	\$502	4 - Usable	Memphis Scale W			30RF
435	MET	E	cannot tag c	Weights - 100#	9/25/2006	\$502	4 - Usable	Memphis Scale W			30RG
436	MET	E	cannot tag c	Weights - 100#	9/25/2006	\$502	4 - Usable	Memphis Scale W			30RW
437	MET	E	cannot tag	Weight - 100#	9/25/2006	\$502	4 - Usable	Memphis Scale W			30RX
438	MET	E	cannot tag c	Weights	9/25/2006	\$502	4 - Usable	Memphis Scale W			30RY
439	MET	E	cannot tag c	Weights	9/25/2006	\$502	4 - Usable	Memphis Scale W			30RZ
440	MET	E	cannot tag c	Weights	9/25/2006	\$502	4 - Usable	Memphis Scale W			30S0
441	MET	E	cannot tag c	Weights	9/25/2006	\$1,055	4 - Usable	Memphis Scale W			30PH
442	OE	E	2242	4 Drum Line Containment	5/1/2005	\$556	4 - Usable	Denios	PN3104		
443	OE	E	2235	4 Drum Liner Containment	5/1/2005	\$556	4 - Usable	Denios	PN3104		
444	OE		2347	AV switch RCA			4 - Usable	RCA	CRF940		3.05E+07
445	OE		2356	AV switch RCA			4 - Usable	RCA	CRF940		3.05E+08
446	OE		2239	Bander with Tools	1/1/2006	\$465	4 - Usable		MIP-9500-12		
447	OE		2240	Bander with Tools	1/1/2006	\$465	4 - Usable		MIP-9500-12		
448	OE		2257	Camera - 4-9 mm Verifocal			1 - New	NTSG			V06A01060
449	OE		2456	Camera - 4-9 mm Verifocal			4 - Usable	NTSG			V06A01056
450	OE		2457	Camera - 4-9 mm Verifocal			4 - Usable	NTSG			V06A01089

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451	OE		2458	Camera - 4-9 mm Verifocal			4 - Usable	NTSG			V06A01108
452	OE		2459	Camera - 4-9 mm Verifocal			4 - Usable	NTSG			V06A01106
453	OE		2255	Camera - TV Zoom Lens - 5-50 m			1 - New	NTSG	CL-550		
454	OE		2256	Camera - TV Zoom Lens - 5-50 m			1 - New	NTSG	CL-550		
455	OE		2343	Camera - TV Zoom Lens - 5-50 m			4 - Usable	NTSG	CL-550		
456	OE		2321	Computer Work Station			4 - Usable	Hon			
457	IT		2340	Computer, Laptop			4 - Usable	Dell	PP01L		7.90E+19
458	IT	E	2439	Computer, Desktop	1/1/2005	\$1,200	4 - Usable	Dell	Dimension 2400		622C531
459	IT		2437	Computer, Desktop			S - Scrap	Dell	WHL Precision 5		1MC5J11
460	IT		02441/02442	Computer, Desktop and Monitor			4 - Usable	Dell	WHL Precision 5		2MC5J11
461	OE		2410	Digital Scale - Sm			4 - Usable	Scout Pro	SP2001		7.12E+09
462	OE		2251	Drum Angle Lifter 01	7/1/2004	\$194	4 - Usable	Material Fab an			
463	OE		2237	Drum Dolly			R - Removed	Vestil	DC-550		529359
464	OE	E	2246	Drum Grab -01	3/17/2005	\$543	4 - Usable	Wesco	DJ-55		483798
465	OE	E	2306	Drum Grip -01	3/15/2005	\$565	4 - Usable	Valley Craft	6145		205
466	OE		2364	Drum Lift -01			4 - Usable	Morse Mfg	6205-115		206631
467	OE		2236	Drum Lift and Tilt			R - Removed	Morse Mfg	1855-HD		218030
468	OE		2367	Drum Lift Table -01		\$479	4 - Usable	Global	A-500		
469	OE		2361	Drum Lift Table -02		\$479	4 - Usable	Global	A-500		
470	OE	E	2326	Drum Lift Table -03		\$840	4 - Usable	Dandy	A-500		L209749
471	OE	E	2325	Drum Lift Table -04		\$840	R - Removed	Dandy	A-500		L209733
472	OE		2366	Drum Lift Table -05		\$479	4 - Usable	Global	A-500		
473	OE		2369	Drum Lift Table -06		\$479	4 - Usable	Global	A-500		
474	OE		2324	Drum Lift Table -07		\$479	4 - Usable	Global	A-500		
475	OE		2368	Drum Lift Table -08		\$479	4 - Usable	Global	A-500		
476	OE	E	2245	Drum Lift Table -09		\$840	R - Removed	Dandy	A-500		L-211735
477	OE	E		Drum Lift Table -10		\$1,019	4 - Usable	Presto Mfg			
478	OE		2247	Drum Truck 01		\$375	4 - Usable	Wesco	45BT		
479	OE		2383	Drum Truck 02		\$294	4 - Usable	Wesco	50BT		
480	OE		2365	Drum Truck 03		\$294	4 - Usable	Wesco	3PU23		
481	OE	S	2332	DVD Recorder			4 - Usable	Panasonic	DMRES10		DQ5DG005204
482	OE	S	2350	DVD Recorder			4 - Usable	Panasonic	DMRES20		DP5JG013836
483	OE	S	2351	DVD Recorder			4 - Usable	Panasonic	DMRES20		DN5KH002311
484	OE	S	2359	DVD Recorder			4 - Usable	Emerson	EWR10W6		D39531666B
485	OE	S	2360	DVD Recorder			4 - Usable	Emerson	EWR10W6		D616368HB
486	OE	E	2260	Electric Demolition hammer wi	8/1/2006	\$800	1 - New	Dewalt	D25900		1066
487	OE		2319	Electric Heater - Portable			4 - Usable	Lasco	5400		
488	OE		2341	Electric Heater - Portable			4 - Usable	Lasco	5400		1.01E+11
489	OE		2384	Electric Heater - Portable (In	1/12/2006	\$755	4 - Usable	Fostoria	2M16-540L		
490	OE		2316	Electric Impact Gun 1/2" Drive			4 - Usable	Milwaulkee	9070-20		229b404440977
491	OE		2241	Electric Impact Gun 1/2" Drive	1/17/2005	\$188	4 - Usable	Dewalt	DW292		759356
492	OE		2405	Electric Impact Gun 1/2" Drive	1/17/2005	\$188	4 - Usable	Dewalt	DW292		729883
493	OE	S	2238	Electric Power Washer			4 - Usable	Husky	1800		6.02E+08
494	OE		2434	Fans 3' Portable			4 - Usable	Dayton	3F310E		
495	OE		2435	Fans 3' Portable			4 - Usable	Dayton	3F310E		

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496	OE		2389	Filing Cabinet - TRU-011 W			4 - Usable				
497	OE	E		Fire Blanket 20x20	6/6/2006	\$1,294	4 - Usable	ADL Insulflex			
498	OE		2390	Fire Safe (RCT sample storage)			4 - Usable				
499	OE		2250	fireman's pick AB			1 - New	Ampco Safety To			
500	OE		2309	Flammable Stoaqe Locker - Lrg			4 - Usable	Eagle			
501	OE	E	2406	Flammable Stoaqe Locker - Lrg	2/1/2006	\$535	4 - Usable	Just Rite	RM0-5365		
502	OE		2307	Flammable Stoaqe Locker - Med			4 - Usable	Eagle			
503	OE		2304	Flammable Stoaqe Locker - Sm			4 - Usable	Eagle			
504	OE		2346	FM Wireless Receiver			4 - Usable	Radio Shack	321256		1.06E+06
505	OE		2355	FM Wireless Receiver			4 - Usable	Radio Shack	321250		817770
506	OE	E	2461	Highlift	10/1/2006	\$2,076	1 - New	Genie	SLA-20		sla06-35460
507	OE		2302	Job Box Storage Transp	9/17/2003		4 - Usable	JoBox	680990		
508	OE		2414	Labeler			4 - Usable	Brother	PT 1950		U61042-A6G212975
509	OE		2415	Labeler			4 - Usable	Brother	PT2600		U60279-B6G263214
510	OE	S	2380	Ladder Ext 16'			4 - Usable	Werner	D6216-2		
511	OE	S	2258	Ladder Little Giant			4 - Usable	Wing	51196-1		1151
512	OE	S	2378	Ladder Step 10'			4 - Usable	Werner	6210		
513	OE	S	2407	Ladder, 12' Step			4 - Usable	Werner	7412		
514	OE	S	2376	Ladder Step 4'			4 - Usable	Louville	L-3111-04		
515	OE	S	2377	Ladder Step 6'			4 - Usable	Werner	6206		
516	OE	S	2379	Ladder Step 8'			4 - Usable	Werner	7308		
517	OE		2248	Loading Ramp (Alum)			4 - Usable	Vestil	BTA-05006048		
518	OE		2312	Loading Ramp (Alum)			4 - Usable	Vestil	BTA-05006048		
519	OE		2411	Magnetic stir plate			1 - New	Barnstead Inter	SP46925		1.07E+12
520	OE		2416	Mercury spill Kit 330			4 - Usable	Pig	KIT 330		
521	OE		2413	Mini sledge AB			1 - New	Ampco Safety To			
522	OE		2358	Monitor Panasonic			4 - Usable	Panasonic	TR-124MA		8.52E+06
523	OE		2349	Monitor Panasonic			4 - Usable	Panasonic	TR-124MA		8.52E+06
524	OE		2331	Monitor pelico			4 - Usable	Pelico	PMM 1501		2.04E+08
525	OE	E	2339	Multi Ray Plus Air Monitoring	6/1/2006	\$3,485	4 - Usable	PCS	PRM50-5P		095-518829
526	OE	E	2465	Multi Ray Plus Air Monitoring	6/1/2006	\$3,485	4 - Usable	PCS	PRM50-5P		095-518808
527	OE		2244	Pallet Jack (Red / MEB)	6/6/2006	\$697	4 - Usable	Atlas	4500		17386
528	OE		2362	Pallet Jack - 02		\$425	7 - Repairable	Dayton	4YX97		
529	OE		2374	Pallet Jack - 03		\$425	4 - Usable	Dayton	4YX97		
530	OE		2308	Pallet Jack - 04		\$273	4 - Usable	Gillis	2.00E+27		PJ-04
531	OE		2245	Pallet Jack - 05		\$273	4 - Usable	Gillis Mfg	2.00E+27		
532	OE		2372	Pallet Jack - 06		\$273	4 - Usable	Gillis Mfg	2.00E+27		
533	OE	E	2373	Pallet Jack - 07	1/1/2006	\$587	4 - Usable	Wesley Internat	48-27-5000AA2.9		
534	OE		2371	Pallet Jack - 08	3/1/2006	\$697	4 - Usable	Atlas	4500		17380
535	OE	E	2243	Pallet Jack - Highlift - 01		\$725	4 - Usable	Zenith	HWC-Size 2200		Size 1213
536	OE		2404	Phd+ air monitoring device		\$415	4 - Usable	PCS			30096
537	OE		2310	Phd+ air sampling device		\$415	4 - Usable	PCS	N/A		29793
538	OE		2311	Phd+ air sampling device		\$415	4 - Usable	PCS	N/A		30197
539	OE		2254	Plate Dog sheet lifting device			4 - Usable	Rig Master	120-1		61302
540	OE		2344	Portable Stairs			4 - Usable	Bally More			

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541	OE		2433	Portable Stairs - 2'			4 - Usable	Bally More		
542	OE		2382	Portable Stairs - 2'			4 - Usable	Bally More		
543	OE		2381	Portable Stairs - 4'	8/1/2005	\$475	4 - Usable	Bally More		
544	OE		2305	Portable Steps			4 - Usable	Bally More		
545	OE		2430	Radio Charging Station			4 - Usable	Motorola	A19920	2.48E+09
546	OE		2431	Radio Charging Station			4 - Usable	Motorola	A19920	2.48E+09
547	OE		2432	Radio Charging Station			4 - Usable	Motorola	A19920	2.48E+09
548	OE		2253	radio icom bp-210 radio charge			4 - Usable	Icom	BC-121N	11117
549	OE		2391	Shelf 4 teir large			4 - Usable	Republic		
550	OE		2259	Shrink Wrap Dispenser	1/1/2006	\$79	4 - Usable	Hilite	1320-300	
551	OE		2317	Shrink Wrap Dispenser		\$79	4 - Usable	Hilite	1820-300	
552	OE		2318	Shrink Wrap Dispenser	1/1/2006	\$79	4 - Usable	Hilite	1820-300	
553	OE	S	2252	sledge hammer AB			1 - New	Ampco Safety To		
554	OE	S		Socket set 1/2" drive			1 - New			
555	OE	S		Socket set 3/8" drive			1 - New			
556	OE	S		Socket set AB			1 - New	Ampco Safety To		
557	OE	S		socket set with ratchet 1/2" d			1 - New			
558	OE	S		socket wrench set AB 1/2" driv			1 - New	Ampco Safety To		
559	OE	S		sockets 15/16 1/2 drive deep w			R - Removed			
560	OE	S		sockets 9/16 1/2 drive deep we			1 - New			
561	OE		2352	Stainless 3 tier av carts	2/1/2006	\$192	4 - Usable	Lakeside		
562	OE		2353	Stainless 3 tier av carts	2/1/2006	\$192	4 - Usable	Lakeside		
563	OE		2303	Storage Locker			4 - Usable	Sandusky		
564	OE		2394	Storage Locker			4 - Usable	Sandusky		
565	OE		2395	Storage Locker			4 - Usable	Sandusky		
566	OE		2396	Storage Locker			4 - Usable	Sandusky		
567	OE		2397	Storage Locker			4 - Usable	Sandusky		
568	OE		2398	Storage Locker			4 - Usable	Sandusky		
569	OE		2399	Storage Locker			4 - Usable	Sandusky		
570	OE		2400	Storage Locker			4 - Usable	Sandusky		
571	OE		2385	Storage Locker			4 - Usable	Tennsco		
572	OE		2315	Storage Locker			4 - Usable	Tennsco		
573	OE		2322	Storage Locker			4 - Usable	Sandusky		
574	OE		2323	Storage Locker			4 - Usable	Sandusky		
575	OE		2328	Storage Locker			4 - Usable	Sandusky		
576	OE		2329	Storage Locker			4 - Usable	Tennsco		
577	OE		2333	Storage Locker			4 - Usable	ASE		
578	OE		2334	Storage Locker			4 - Usable	Tennsco		
579	OE		2335	Storage Locker			4 - Usable	Tennsco		
580	OE		2336	Storage Locker			4 - Usable	Tennsco		
581	OE		2337	Storage Locker			4 - Usable	Tennsco		
582	OE		2409	Storage Locker - 3'			4 - Usable	Coleman		
583	OE		2314	Storage Locker - 3'			4 - Usable	Parent		
584	OE		2387	Storage Locker - 3'			4 - Usable			
585	OE		2386	Storage Locker - 3'			4 - Usable			

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586	OE		2370	Storage Locker - 3'			4 - Usable	Parent			
587	OE		2401	Storage Locker - 3'			4 - Usable	Parent			
588	OE		2388	Storage Locker - 7'			4 - Usable	ASE			
589	OE		2327	Storage Locker w/ wrkstn - 3'	12/1/2005		4 - Usable				
590	OE		2338	Storage Locker w/ wrkstn - 3'			4 - Usable	Hodge			
591	OE		2375	Storage Locker w/ wrkstn - 3'	8/1/2005		4 - Usable				
592	OE	E	2436	Tandemlift		\$3,800	4 - Usable	Tandemloc Inc.	72105		11057
593	OE	E	2301	Tank Top Lift	3/1/2003	\$4,937	4 - Usable	Bally More	HTT9-13		453
594	OE		2408	Tool Box (5 drawer with tools)			4 - Usable	Rubbermaid			
595	OE		2363	Tool Box (7 drawer with tools)			4 - Usable	Proto	J4410		
596	OE		2313	Tool Box (10 drawer with tools)			4 - Usable	Armstrong			
597	OE		2412	Torque Wrench 1/2 drive			4 - Usable	Armstrong			5.06E+09
598	OE		2403	Torque Wrench 1/2 drive			4 - Usable				4050417649
599	OE	S		Utility Knife			4 - Usable	X-Acto	N/A		
600	OE		2348	VHS Panasonic			4 - Usable	Panasonic	PU94055	E9IA94301	
601	OE		2357	VHS Panasonic			4 - Usable	Panasonic	9U94055	C12A19866	
602	OE		2320	Video controller rack JB-VM-1			4 - Usable	Pelico	CM6800		
603	OE	S	2345	video mixer			4 - Usable	Archer	15-1961		
604	OE		2354	Video mixer Ambico model V0629			4 - Usable	Ambico	V-0629		
605	OE		2330	Video select & control			4 - Usable	Pelico	KBD 300A	0212721-0044	
606	OE	S		Vise grips			R - Removed	Vise Grip	10-R		
607	OE		2392	Work Bench 6'			4 - Usable				
608	OE		2393	Work Bench 6'			4 - Usable				
609	OE		'02402	Work Bench 6'	2/1/2004		R - Removed				
610	OE		2249	Work Benck 6' with electric			4 - Usable				
611	OE		2402	Work table 6'			4 - Usable				
612	IT	S	1885	24 Port GB Ethernet Switch	6/27/2002	\$283	4 - Usable	3Com	3C16980A	0401 7MMV72065F8	
613	RAD	E,S	1832	Air Sampler	3/2/2006	\$500	4 - Usable	SKC/Sensedyne	Gillian Lapel A		1001
614	RAD	E,S	2017	Air Sampler	3/2/2006	\$500	4 - Usable	SKC/Sensedyne	Gillian Lapel A		1002
615	RAD	E,S	1833	Air Sampler	3/2/2006	\$500	4 - Usable	SKC/Sensedyne	Gillian Lapel A		1003
616	RAD	E,S	1834	Air Sampler	3/2/2006	\$500	4 - Usable	SKC/Sensedyne	Gillian Lapel A		1004
617	RAD	E,S	1835	Air Sampler	3/2/2006	\$500	4 - Usable	SKC/Sensedyne	Gillian Lapel A		1005
618	RAD	E,S	1836	Air Sampler	3/2/2006	\$500	4 - Usable	SKC/Sensedyne	Gillian Lapel A		1006
619	RAD	E,S	2019	Air Sampler	3/2/2006	\$500	4 - Usable	SKC/Sensedyne	Gillian Lapel A		1007
620	RAD	E,S	1819	Air Sampler	3/2/2006	\$500	4 - Usable	SKC/Sensedyne	Gillian Lapel A		1008
621	RAD	E,S	1837	Air Sampler	3/2/2006	\$500	4 - Usable	SKC/Sensedyne	Gillian Lapel A		1009
622	RAD	E,S	1868	Air Sampler	3/2/2006	\$500	4 - Usable	SKC/Sensedyne	Gillian Lapel A		1010
623	RAD	E,S	1838	Air Sampler	3/2/2006	\$500	4 - Usable	SKC/Sensedyne	Gillian Lapel A		1011
624	RAD	E,S	1849	Air Sampler	3/2/2006	\$500	4 - Usable	SKC/Sensedyne	Gillian Lapel A		1012
625	RAD	E,S	2018	Air Sampler	3/2/2006	\$500	4 - Usable	SKC/Sensedyne	Gillian Lapel A		1013
626	RAD	E,S	1839	Air Sampler	3/2/2006	\$500	4 - Usable	SKC/Sensedyne	Gillian Lapel A		1014
627	RAD	E,S	1840	Air Sampler	3/2/2006	\$500	4 - Usable	SKC/Sensedyne	Gillian Lapel A		1015
628	RAD	E,S	1898	Air Sampler	5/19/2004	\$500	4 - Usable	SKC/Sensedyne	Gillian Lapel A		15113
629	RAD	E,S	1841	Air Sampler	5/19/2004	\$500	4 - Usable	SKC/Sensedyne	Gillian Lapel A		15114
630	RAD	E,S	1859	Air Sampler	5/19/2004	\$500	4 - Usable	SKC/Sensedyne	Gillian Lapel A		15115

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EQ No	SME	EQ Type	Fxd Asst ID	Description	Acq'n Date	Acq'n Cost	Condt'n Code	Make	Model	Attachment Number	Serial Number
631	RAD	E,S	1842	Air Sampler	5/19/2004	\$500	4 - Usable	SKC/Sensedyne	Gillian Lapel A		15116
632	RAD	E,S	1843	Air Sampler	5/19/2004	\$500	4 - Usable	SKC/Sensedyne	Gillian Lapel A		15117
633	RAD	E,S	1844	Air Sampler	5/19/2004	\$500	4 - Usable	SKC/Sensedyne	Gillian Lapel A		15118
634	RAD	E,S	1897	Air Sampler	5/19/2004	\$500	4 - Usable	SKC/Sensedyne	Gillian Lapel A		15119
635	RAD	E,S	1820	Air Sampler	5/19/2004	\$500	4 - Usable	SKC/Sensedyne	Gillian Lapel A		15120
636	RAD	E,S	1821	Air Sampler	5/19/2004	\$500	4 - Usable	SKC/Sensedyne	Gillian Lapel A		15121
637	RAD	E,S	1822	Air Sampler	5/19/2004	\$500	4 - Usable	SKC/Sensedyne	Gillian Lapel A		15122
638	RAD	E,S	1823	Air Sampler	5/19/2004	\$500	4 - Usable	SKC/Sensedyne	Gillian Lapel A		15123
639	RAD	E,S	1824	Air Sampler	5/19/2004	\$500	4 - Usable	SKC/Sensedyne	Gillian Lapel A		15124
640	RAD	E,S	2016	Air Sampler	5/19/2004	\$500	4 - Usable	SKC/Sensedyne	Gillian Lapel A		15125
641	RAD	E,S	1987	Air Sampler	5/19/2004	\$500	4 - Usable	SKC/Sensedyne	Gillian Lapel A		15126
642	RAD	E,S	1825	Air Sampler	5/19/2004	\$500	4 - Usable	SKC/Sensedyne	Gillian Lapel A		15127
643	RAD	E,S	01827/01828	Air Sampler Calibrator w/ prob	5/19/2004	\$1,210	4 - Usable	SKC/Sensedyne	Gillibrator/20	0302400/0303835-	
644	RAD	E,S	01829/01830	Air Sampler Calibrator w/ prob	3/2/2006	\$1,210	4 - Usable	SKC/Sensedyne	Gillibrator/20	0601024/0601002-	
645	RAD	E,S	1899	Air Sampler/Calibrator	11/15/2002	\$595	4 - Usable	Radeco	C-812 Calibrato		1918
646	RAD	E,S	1900	Air Sampler/Calibrator	9/27/2002	\$1,600	4 - Usable	Radeco	D-802-1		3313
647	RAD	E,S	NA	Air Sampling Head	10/31/2005	\$950	4 - Usable	Radeco	Flow Rotometer	6000-25-106	
648	RAD	E,S	NA	Air Sampling Head	9/27/2002	\$1,675	4 - Usable	Radeco	Flow Rotometer		5702
649	RAD	E,S	1865	Air Sampling Head	9/27/2002	\$950	4 - Usable	Radeco	Flow Rotometer		6208
650	RAD	E,S	1869	Air Sampling Head	9/27/2002	\$950	4 - Usable	Radeco	Flow Rotometer		6209
651	RAD	E,S	2023	Air Sampling Head	11/15/2002	\$950	4 - Usable	Radeco	Flow Rotometer		6224
652	RAD	E,S	1855	Air Sampling Head	1/15/2002	\$950	4 - Usable	Radeco	Flow Rotometer		6225
653	RAD	E,S	2025	Air Sampling Head	11/15/2002	\$950	4 - Usable	Radeco	Flow Rotometer		6226
654	RAD	E,S	1866	Air Sampling Head	11/15/2002	\$950	4 - Usable	Radeco	Flow Rotometer		6227
655	RAD	E,S	2024	Air Sampling Head	10/31/2005	\$950	4 - Usable	Radeco	Flow Rotometer	6000-25-105	
656	RAD	E,S	2030	Air Sampling Head	9/27/2002	\$1,675	4 - Usable	Radeco	Flow Rotometer		5700
657	RAD	E,S	2029	Air Sampling Head	9/27/2002	\$1,675	4 - Usable	Radeco	Flow Rotometer		5701
658	RAD	E,S	2125	alpha/beta pancake scaler w/ p	8/6/2003	\$1,105	7 - Repairable	Eberline	RM-25/HP-360	922-2737/2737	
659	RAD	E,S	02014/02015	alpha/beta survey meter w/ pro	4/22/2005	\$2,290	4 - Usable	Ludlum	LM-2360/43-93	193659/238111	
660	RAD	E,S	01937/01938	alpha/beta survey meter w/ pro	4/22/2005	\$2,290	4 - Usable	Ludlum	LM-2360/43-93	193684/226710	
661	RAD	E,S	01965/01966	alpha/beta survey meter w/ pro	4/22/2005	\$2,290	4 - Usable	Ludlum	LM-2360/43-93	202420/226869	
662	RAD	E,S	01967/01968	alpha/beta survey meter w/ pro	4/22/2005	\$2,290	4 - Usable	Ludlum	LM-2360/43-93	202432/226046	
663	RAD	E,S	01969/01970	alpha/beta survey meter w/ pro	4/22/2005	\$2,290	4 - Usable	Ludlum	LM-2360/43-93	202453/238086	
664	RAD	E,S	02004/02005	alpha/beta survey meter w/ pro	4/3/2006	\$2,290	4 - Usable	Ludlum	LM-2360/43-93	225176/236981	
665	RAD	E,S	01939/01940	alpha/beta survey meter w/ pro	1/30/2006	\$2,290	4 - Usable	Ludlum	LM-2360/43-93	225203/236958	
666	RAD	E,S	02002/02003	alpha/beta survey meter w/ pro	1/30/2006	\$2,290	4 - Usable	Ludlum	LM-2360/43-93	225234/236963	
667	RAD	E,S	01992/01993	alpha/beta survey meter w/ pro	1/30/2006	\$2,290	4 - Usable	Ludlum	LM-2360/43-93	225277/236549	
668	RAD	E,S	NA	Alpha-7 Single Board Computer	7/27/2002	\$1,100	4 - Usable	Eberline	NONE	NONE	
669	RAD	E,S	NA	Apm-3e detectors (4)	5/29/2003	\$2,650	4 - Usable	Canberra	NONE	NONE	
670	RAD	E,S	1826	Battery Monitoring System	6/1/2006	\$820	4 - Usable	SKC/Sensedyne	BMS II	0512008 Rev. M	
671	IT	E		Computer, Desktop	6/17/2002	\$5,670	4 - Usable	Dell	Poweredge 2500	HQ3GM11	
672	IT	E	2034	Computer, Desktop	5/7/2002	\$1,000	4 - Usable	DELL	Dell Optiplex G	71FKQ11	
673	RAD	E,S	01847/01848	Detector w/ Probe	6/27/2002	\$10,740	4 - Usable	Eberline	Alpha-7/Radial	00101/101	
674	RAD	E,S	01851/01852	Detector w/ Probe	6/27/2002	\$10,740	4 - Usable	Eberline	Alpha-7/Radial	00102/102	
675	RAD	E,S	02027/02028	Detector w/ Probe	6/27/2002	\$10,740	7 - Repairable	Eberline	Alpha-7/Radial	00103/103	

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676	RAD	E,S	02000/02001	Detector w/ Probe	6/27/2002	\$10,740	4 - Usable	Eberline	Alpha-7/Radial		00104/104
677	RAD	E,S	02007/02008	Detector w/ Probe	6/27/2002	\$10,740	4 - Usable	Eberline	Alpha-7/Radial		00105/105
678	RAD	E,S	02012/02013	Detector w/ Probe	6/27/2002	\$10,740	4 - Usable	Eberline	Alpha-7/Radial		00106/106
679	RAD	E,S	01904/01901	Detector w/ Probe	6/28/2002	\$11,340	4 - Usable	Eberline	AMS-4/Inline P		1462/Inline1462
680	RAD	E,S	02031/02032	Detector w/ Probe	6/28/2002	\$11,340	4 - Usable	Eberline	AMS-4/Inline P		1503/Inline1503
681	RAD	E,S	01903/01902	Detector w/ Probe	6/28/2002	\$11,340	4 - Usable	Eberline	AMS-4/Inline P		1505/Inline1505
682	RAD	S	1815	Digital Projector	5/29/2003	\$1,299	4 - Usable	InFocus	LP70+		ANEN52400353
683	RAD	E,S	1895	dose rate instrument	1/8/2003	\$1,350	7 - Repairable	Eberline	RO-20		4223
684	RAD	E,S	1971	dose rate instrument	1/8/2003	\$1,350	4 - Usable	Eberline	RO-20		4225
685	RAD	E	1870	fixed area monitor w/ probe	6/17/2002	\$3,110	4 - Usable	Eberline	RMS-3/HP-270		376/2002
686	RAD	E	1853	fixed area monitor w/ probe	6/17/2002	\$3,110	4 - Usable	Eberline	RMS-3/HP-270		463/1996
687	RAD	E	1867	fixed area monitor w/ probe	6/17/2002	\$3,110	4 - Usable	Eberline	RMS-3/HP-270		464/2000
688	RAD	E	1858	fixed area monitor w/ probe	6/17/2002	\$3,110	4 - Usable	Eberline	RMS-3/HP-270		465/1999
689	RAD	E	1962	fixed area monitor w/ probe	6/17/2002	\$3,110	4 - Usable	Eberline	RMS-3/HP-270		466/1991
690	RAD	E	2026	fixed area monitor w/ probe	6/17/2002	\$3,110	4 - Usable	Eberline	RMS-3/HP-270		467/1998
691	RAD	E	1963	fixed area monitor w/ probe	6/17/2002	\$3,110	4 - Usable	Eberline	RMS-3/HP-270		468/1997
692	RAD	E	1964	fixed area monitor w/ probe	6/17/2002	\$3,110	4 - Usable	Eberline	RMS-3/HP-270		469/1995
693	RAD	E	1989	fixed area monitor w/ probe	6/17/2002	\$3,110	4 - Usable	Eberline	RMS-3/HP-270		470/1993
694	RAD	E	2022	fixed area monitor w/ probe	6/17/2002	\$3,110	4 - Usable	Eberline	RMS-3/HP-270		474/1992
695	RAD	E	2006	fixed area monitor w/ probe	6/17/2002	\$3,110	4 - Usable	Eberline	RMS-3/HP-270		475/2001
696	RAD	E	1988	fixed area monitor w/ probe	6/17/2002	\$3,110	4 - Usable	Eberline	RMS-3/HP-270		476/1994
697	RAD	E	1854	fixed area monitor w/ probe	6/17/2002	\$3,110	7 - Repairable	Eberline	RMS-3/HP-270		477/2003
698	RAD	E,S	2038	Smear Counter	1/8/2003	\$4,045	4 - Usable	Eberline	HandECount		319
699	RAD	E,S	01808/01809	Frisker/probe set	7/12/2004	\$1,300	4 - Usable	Ludlum	LM-177/44-40		202507/209564
700	RAD	E,S	01812/01813	Frisker/probe set	7/13/2004	\$1,300	4 - Usable	Ludlum	LM-177/44-40		202536/209572
701	RAD	E,S	01810/01811	Frisker/probe set	7/14/2004	\$1,300	4 - Usable	Ludlum	LM-177/44-40		202588/209569
702	RAD	E,S	01860/01861	Frisker/probe set	4/22/2005	\$1,590	4 - Usable	Ludlum	LM-177/43-92		211265/228692
703	RAD	E,S	02103/02104	Frisker/probe set	4/23/2005	\$1,590	4 - Usable	Ludlum	LM-177/43-92		211294/228687
704	RAD	E,S	01856/01857	Frisker/probe set	4/24/2005	\$1,590	4 - Usable	Ludlum	LM-177/43-92		211328/228688
705	RAD	E,S	02101/02102	Frisker/probe set	4/25/2005	\$1,590	4 - Usable	Ludlum	LM-177/43-92		211329/228693
706	RAD	E,S	02099/02100	Frisker/probe set	4/26/2005	\$1,590	4 - Usable	Ludlum	LM-177/43-92		211338/228689
707	RAD	E,S	02097/02098	Frisker/probe set	4/27/2005	\$1,590	4 - Usable	Ludlum	LM-177/43-92		214647/220415
708	RAD	E,S	NA	High range alpha meter	2/24/2006	\$795	4 - Usable	Ludlum	LM-195		207112
709	RAD	E,S	2011	High range alpha meter	8/21/2006	\$795	4 - Usable	Ludlum	LM-195		200139
710	RAD	E,S	1986	High range alpha meter	2/24/2006	\$795	4 - Usable	Ludlum	LM-195		207130
711	RAD	E,S	1831	Laboratory scale	9/27/2002	\$732	4 - Usable	Ohaus	Adventurer AR15		M212067
712	IT	E,S	1884	Laptop Computer	1/1/2003	\$850	4 - Usable	DELL	Latitude		3M6P221
713	RAD	S	2096	Leak Detector	5/29/2003	\$100	4 - Usable	TIF Instruments	TIF XL-1 Leak D		7.02E+10
714	RAD	E,S	1890	low background counter	7/21/2003	\$51,120	4 - Usable	Canberra	Tennelec Series		78474
715	RAD	E,S	1894	MicroR meter	7/15/2004	\$1,095	4 - Usable	Ludlum	LM-19		207479
716	RAD	E,S	1893	MicroR meter	7/16/2004	\$1,095	4 - Usable	Ludlum	LM-19		207503
717	RAD	E,S	NA	Neutron Rem Ball	4/12/2005	\$2,495	7 - Repairable	Ludlum	LM 12-4		215335
718	RAD	E,S	1896	Neutron Rem Ball	4/12/2005	\$2,495	4 - Usable	Ludlum	LM 12-4		215331
719	RAD	E,S	1978	Neutron Rem Ball	4/12/2005	\$2,495	4 - Usable	Ludlum	LM 12-4		215368
720	RAD	E,S	1977	Neutron Rem Ball	9/14/2006	\$2,495	4 - Usable	Ludlum	LM 12-4		231188

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721	RAD	E,S	NA	PCM detector boards (3)	5/29/2003	\$1,300	4 - Usable	Canberra	NONE		NONE
722	RAD	E,S	NA	PCM LED Boards (5)	5/29/2003	\$825	4 - Usable	Canberra	NONE		NONE
723	RAD	E	1990	Personnel Contamination Monito	5/29/2003	\$40,950	4 - Usable	Aptech	APM-3e		207620
724	RAD	E	1991	Personnel Contamination Monito	5/29/2003	\$40,950	4 - Usable	Aptech	APM-3e		207621
725	RAD	S	2035	Printer (for Electronic Dosime	5/7/2002	\$250	4 - Usable	HP	HP Deskjet 6122		MY27R1918H
726	RAD	S	1850	probe for 200139	8/21/2006	\$200	R - Removed	Ludlum	43-132		243159
727	RAD	S	1983	probe for 200139	8/21/2006	\$200	R - Removed	Ludlum	43-132		240542
728	RAD	E,S	2039	probe for 200139	4/22/2005	\$895	R - Removed	Ludlum	43-93		226046
729	RAD	S	NA	probe for 207112	2/24/2006	\$200	R - Removed	Ludlum	43-132		240548
730	RAD	S	NA	probe for 207112	2/24/2006	\$200	R - Removed	Ludlum	43-132		240539
731	RAD	S	1982	probe for 207112	2/24/2006	\$200	R - Removed	Ludlum	43-132		240546
732	RAD	S	NA	Probe for 207130	2/24/2006	\$200	R - Removed	Ludlum	43-132		240541
733	RAD	S	1979	Probe for 207130	2/24/2006	\$200	R - Removed	Ludlum	43-132		240538
734	RAD	S	1981	Probe for 207130	2/24/2006	\$200	R - Removed	Ludlum	43-132		240544
735	RAD	S	1980	Probe for 207130	2/24/2006	\$200	R - Removed	Ludlum	43-132		190990
736	RAD	S	1906	Probe for 'E-600 SN '00345	4/2/2001		4 - Usable	Eberline	HP 260		77
737	RAD	S	1907	Probe for 'E-600 SN '00345	4/2/2001		4 - Usable	Eberline	SHP-270		126
738	RAD	S	1908	Probe for 'E-600 SN '00345	4/2/2001		4 - Usable	Eberline	SHP-330		125
739	RAD	S	1909	Probe for 'E-600 SN '00345	4/2/2001		4 - Usable	Eberline	SHP-340		115
740	RAD	S	1914	Radiodosimeter	11/30/2005	\$325	R - Removed	Laurus	RAD 60R/62R		250131
741	RAD	S	1877	Radiodosimeter	11/30/2005	\$325	R - Removed	Laurus	RAD 60R/62R		250132
742	RAD	S	1883	Radiodosimeter	11/30/2005	\$325	R - Removed	Laurus	RAD 60R/62R		250133
743	RAD	S	1876	Radiodosimeter	11/30/2005	\$325	R - Removed	Laurus	RAD 60R/62R		250134
744	RAD	S	1925	Radiodosimeter	11/30/2005	\$325	R - Removed	Laurus	RAD 60R/62R		250136
745	RAD	S	1886	Radiodosimeter	11/30/2005	\$325	R - Removed	Laurus	RAD 60R/62R		250138
746	RAD	S	1887	Radiodosimeter	11/30/2005	\$325	R - Removed	Laurus	RAD 60R/62R		250139
747	RAD	S	1781	Radiodosimeter	11/30/2005	\$325	R - Removed	Laurus	RAD 60R/62R		250140
748	RAD	S	1912	Radiodosimeter	11/30/2005	\$325	R - Removed	Laurus	RAD 60R/62R		250141
749	RAD	S	1932	Radiodosimeter	11/30/2005	\$325	R - Removed	Laurus	RAD 60R/62R		250142
750	RAD	S	1924	Radiodosimeter	11/30/2005	\$325	R - Removed	Laurus	RAD 60R/62R		250143
751	RAD	S	1776	Radiodosimeter	11/30/2005	\$325	R - Removed	Laurus	RAD 60R/62R		250144
752	RAD	S	1976	Radiodosimeter	11/30/2005	\$325	R - Removed	Laurus	RAD 60R/62R		250146
753	RAD	S	1920	Radiodosimeter	11/30/2005	\$325	R - Removed	Laurus	RAD 60R/62R		250147
754	RAD	S	1878	Radiodosimeter	11/30/2005	\$325	R - Removed	Laurus	RAD 60R/62R		250150
755	RAD	S	1919	Radiodosimeter	11/30/2005	\$325	R - Removed	Laurus	RAD 60R/62R		250151
756	RAD	S	2115	Radiodosimeter	11/30/2005	\$325	R - Removed	Laurus	RAD 60R/62R		250153
757	RAD	S	1918	Radiodosimeter	11/30/2005	\$325	R - Removed	Laurus	RAD 60R/62R		250154
758	RAD	S	1975	Radiodosimeter	11/30/2005	\$325	R - Removed	Laurus	RAD 60R/62R		250156
759	RAD	S	1934	Radiodosimeter	11/30/2005	\$325	R - Removed	Laurus	RAD 60R/62R		250157
760	RAD	E,S	2117	Radiodosimeter	5/7/2002	\$930	R - Removed	Laurus	RAD 60R/62R		223243
761	RAD	E,S	NA	Radiodosimeter	5/7/2002	\$930	R - Removed	Laurus	RAD 60R/62R		223301
762	RAD	E,S	NA	Radiodosimeter	5/7/2002	\$930	R - Removed	Laurus	RAD 60R/62R		223312
763	RAD	E,S	NA	Radiodosimeter	5/7/2002	\$930	R - Removed	Laurus	RAD 60R/62R		223323
764	RAD	S	1773	Radiodosimeter	5/7/2002	\$365	R - Removed	Laurus	RAD 60R/62R		223327
765	RAD	E,S	1777	Radiodosimeter	5/7/2002	\$930	R - Removed	Laurus	RAD 60R/62R		223345

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766	RAD	E,S	NA	Radiodosimeter	5/7/2002	\$930	R - Removed	Laurus	RAD 60R/62R		223351
767	RAD	E,S	1874	Radiodosimeter	5/7/2002	\$930	R - Removed	Laurus	RAD 60R/62R		223127
768	RAD	E,S	1929	Radiodosimeter	5/7/2002	\$930	R - Removed	Laurus	RAD 60R/62R		223167
769	RAD	E,S	1879	Radiodosimeter	5/7/2002	\$930	R - Removed	Laurus	RAD 60R/62R		223168
770	RAD	E,S	1935	Radiodosimeter	5/7/2002	\$930	R - Removed	Laurus	RAD 60R/62R		223198
771	RAD	E,S	1926	Radiodosimeter	5/7/2002	\$930	R - Removed	Laurus	RAD 60R/62R		223200
772	RAD	E,S	1916	Radiodosimeter	5/7/2002	\$930	R - Removed	Laurus	RAD 60R/62R		223201
773	RAD	E,S	1927	Radiodosimeter	5/7/2002	\$930	R - Removed	Laurus	RAD 60R/62R		223204
774	RAD	E,S	1888	Radiodosimeter	5/7/2002	\$930	R - Removed	Laurus	RAD 60R/62R		223225
775	RAD	E,S	1933	Radiodosimeter	5/7/2002	\$930	R - Removed	Laurus	RAD 60R/62R		223241
776	RAD	E,S	1923	Radiodosimeter	5/7/2002	\$930	R - Removed	Laurus	RAD 60R/62R		223287
777	RAD	E,S	1882	Radiodosimeter	5/7/2002	\$930	R - Removed	Laurus	RAD 60R/62R		223288
778	RAD	E,S	1881	Radiodosimeter	5/7/2002	\$930	R - Removed	Laurus	RAD 60R/62R		223289
779	RAD	E,S	1917	Radiodosimeter	5/7/2002	\$930	R - Removed	Laurus	RAD 60R/62R		223290
780	RAD	E,S	1875	Radiodosimeter	5/7/2002	\$930	R - Removed	Laurus	RAD 60R/62R		223300
781	RAD	E,S	1928	Radiodosimeter	5/7/2002	\$930	R - Removed	Laurus	RAD 60R/62R		223302
782	RAD	E,S	1911	Radiodosimeter	5/7/2002	\$930	R - Removed	Laurus	RAD 60R/62R		223303
783	RAD	E,S	1921	Radiodosimeter	5/7/2002	\$930	R - Removed	Laurus	RAD 60R/62R		223313
784	RAD	E,S	1913	Radiodosimeter	5/7/2002	\$930	R - Removed	Laurus	RAD 60R/62R		223322
785	RAD	E,S	1889	Radiodosimeter	5/7/2002	\$930	R - Removed	Laurus	RAD 60R/62R		223324
786	RAD	E,S	1915	Radiodosimeter	5/7/2002	\$930	R - Removed	Laurus	RAD 60R/62R		223337
787	RAD	E,S	1880	Radiodosimeter	5/7/2002	\$930	R - Removed	Laurus	RAD 60R/62R		223338
788	RAD	E,S	1910	Radiodosimeter	5/7/2002	\$930	R - Removed	Laurus	RAD 60R/62R		223339
789	RAD	E,S	1774	Radiodosimeter	5/7/2002	\$365	R - Removed	Laurus	RAD 60R/62R		223341
790	RAD	E,S	1873	Radiodosimeter	5/7/2002	\$930	R - Removed	Laurus	RAD 60R/62R		223342
791	RAD	E,S	1872	Radiodosimeter	5/7/2002	\$930	R - Removed	Laurus	RAD 60R/62R		223343
792	RAD	E,S	1931	Radiodosimeter	5/7/2002	\$930	R - Removed	Laurus	RAD 60R/62R		223357
793	RAD	E,S	NA	RMS3- Modular Detector Board (7/27/2002	\$1,329	4 - Usable	Eberline	NONE		NONE
794	RAD	E,S	01845/01846	smear scaler w/ probe	1/24/2006	\$2,490	4 - Usable	Ludlum	LM-3030E/43-10-		217527/218258
795	RAD	E,S	02020/02021	smear scaler w/ probe	1/4/2006	\$2,490	4 - Usable	Ludlum	LM-3030E/43-10-		217535/218260
796	RAD	E,S	02009/02010	smear scaler w/ probe	12/17/2004	\$2,490	4 - Usable	Ludlum	LM-3030E/43-10-		217620/229372
797	RAD	S	1984	Spare probe	8/21/2006	\$200	R - Removed	Ludlum	43-132		240543
798	RAD	S	1985	Spare probe	8/21/2006	\$200	R - Removed	Ludlum	43-132		240545
799	RAD	E,S	Installed Eq	Stack Sampler	12/17/2004	\$15,209	4 - Usable	HI-Q Instrument	HI-Q		SM-1
800	RAD	S	1905	Survey inst. w/ 4 probes	4/2/2001		4 - Usable	Eberline	E-600		345
801	RAD	E,S	01806/01806	Survey inst. w/ HP-210L probe	11/18/2002	\$1,225	4 - Usable	Eberline	ASP-2/2e/210L		1238
802	RAD	S	02123/02124	Survey inst. w/ HP-260 probe	10/30/2002		4 - Usable	Eberline	ASP-1/HP 260		510
803	RAD	S	02118/02119	Survey inst. w/ HP-260 probe	5/6/2002		4 - Usable	Eberline	ASP-1/HP 260		511
804	RAD	S	01818/02120	Survey inst. w/ HP-260 probe	8/26/2003		4 - Usable	Eberline	ESP 1/HP 260		03256/722723
805	RAD	S	01816/01817	Survey inst. w/ HP-260 probe	11/15/2002		4 - Usable	Ludlum	LM-3/HP-260		36406/RN010946
806	RAD	S	02129/02130	Survey inst. w/ HP-260 probe	1/24/2006		4 - Usable	Ludlum	LM-3/HP-260		36433/RN012644
807	RAD	S	02127/02128	Survey inst. w/ HP-260 probe	4/2/2001		4 - Usable	Eberline	E-120 E/HP 260		14185/715222
808	RAD	E,S	NA	Survey inst. w/ HP-270 probe	9/23/2005	\$1,030	4 - Usable	Eberline	ASP-2/2e/HP 270		1772
809	RAD	E,S	01972/01973	Survey inst. w/ HP-270 probe	11/12/2002	\$1,030	4 - Usable	Eberline	ASP-2/2e/HP 270		1229
810	RAD	E,S	01995/01999	Survey inst. w/ HP-270 probe	11/12/2002	\$1,030	4 - Usable	Eberline	ASP-2/2e/HP 270		1230/02085

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811	RAD	E,S	01891/01892	Survey inst. w/ HP-270 probe	11/12/2002	\$1,030	4 - Usable	Eberline	ASP-2/2e/HP 270		1234
812	RAD	E,S	01994/01998	Survey inst. w/ HP-270 probe	9/23/2005	\$1,030	4 - Usable	Eberline	ASP-2/2e/HP 270	1771/2984	
813	RAD	E,S	01862/01863	Survey inst. w/ HP-270 probe	9/23/2005	\$1,030	4 - Usable	Eberline	ASP-2/2e/HP 270		1773
814	RAD	E,S	NA	Survey inst. w/ 'HP-380AB prob	4/1/2003	\$1,495	4 - Usable	Eberline	E-600/HP-380AB	2530/195	
815	RAD	E,S	NA	Survey inst. w/ 'HP-380AB prob	4/1/2003	\$1,495	4 - Usable	Eberline	E-600/HP-380AB	2532/194	
816	RAD	E,S	01996/01997	Survey inst. w/ 'HP-380AB prob	4/1/2003	\$1,495	4 - Usable	Eberline	E-600/HP-380AB	2545/193	
817	RAD	E,S	1864	Survey inst. w/ Smart Pole	9/12/2002	\$3,745	4 - Usable	Eberline	E-600/Smart Pol	02413/163	
818	RAD	E,S	1974	Survey inst. w/ Smart Pole	9/12/2002	\$3,745	4 - Usable	Eberline	E-600/Smart Pol	02546/168	
819	RAD	S	1814	Uninterrupted Power Supply (UPS	6/27/2002	\$700	4 - Usable	TrippLite	Smart Net Tower	9207GF0SM35990011	
820	RH	E	T-HC-25-D-PR	4 Hot Cell Shield Windows	11/1/2004	\$270,000	1 - New	Hot Cell Servic	T-HC-FW-S-ME-00	T-HC-25-D-PR-009	
821	RH	E	C-222	5 Ton Canister Storage Rm Cran	11/1/2004	\$40,000	1 - New	A&M/DeShazo	TR-DG-BM-19591	C-222	
822	RH	E	C-211/038709	5 Ton Crane/Overhead Manipulat	11/1/2004	\$1,075,000	1 - New	PAR Systems	Custom-50731	C-211/03870936	
823	RH	E	C-441	5 Ton TRUPACT Loadout Crane	11/1/2004	\$32,000	1 - New	A&M/DeShazo	TR-SG-BM-19882	C-441	
824	RH	E	T-HC-FW-D-SS	55-Gal Drum Staging Rack	11/1/2004	\$2,000	1 - New	Custom Fab.	Build to Print	T-HC-FW-D-SS-203	
825	RH	E	T-HC-FW-D-ME	5-Gal Can Loading Port Shield	11/1/2004	\$4,000	1 - New	Custom Fab.	Build to Print	T-HC-FW-D-ME-129-	
826	RH	E	T-HC-FW-D-SS	5-Gal Can Staging Rack (2)	11/1/2004	\$4,000	1 - New	Custom Fab.	Build to Print	T-HC-FW-D-SS-202	
827	RH	E	C-322	7.5 Ton 807 Access Area Crane	11/1/2004	\$22,000	1 - New	A&M/DeShazo	UR-SG-HG-19883	C-322	
828	RH	E	T-HC-FW-D-ME	72 B Loading Portal	11/1/2004	\$10,000	1 - New	Custom Fab.	Build to Print	T-HC-FW-D-ME-125	
829	RH	E	T-HC-FW-D-ME	CH Drum Portal	11/1/2004	\$10,000	1 - New	Custom Fab.	Build to Print	T-HC-FW-D-ME-221	
830	RH	E	T-HC-FW-D-ME	Concrete Cask Bogie	11/1/2004	\$55,000	1 - New	Metweld	PO#045232	T-HC-FW-D-ME-101	
831	RH	E	T-HC-FW-D-ME	Concrete Cask Bogie Lift/Porta	11/1/2004	\$179,400	1 - New	Met-Weld	Build to Print	T-HC-FW-D-ME-111	
832	RH	E	T-HC-FW-D-ME	Concrete Cask Entry Portal	11/1/2004	\$18,000	1 - New	Metweld	PO#048456	T-HC-FW-D-ME-127	
833	RH	E	T-HC-147-D-M	Electro-Hydraulic Lift Tables	11/1/2004	\$15,000	1 - New	West Bend Equip	STXXS-2000-36/4	T-HC-147-D-ME-001	
834	RH	E	A-211	Hot Cell Carbon Adsorber	11/1/2004	\$20,000	1 - New	Barnebey Sutcli	CM35-1-3X1-1-C1	A-211	
835	RH	E	B-211B	Hot Cell Exhaust Blower	11/1/2004	\$5,750	1 - New	Rogers&Morgan	Hartzell	B-211B	
836	RH	E	F-211A/B	Hot Cell Filtration System	11/1/2004	\$83,390	1 - New	Flanders	CF-3X1-012P-1GB	F-211A/B	
837	RH	E	0315H	Hot Cell Hydraulic Pivot Shear	11/1/2004	\$75,000	1 - New	Hill Acme	15H	0315H	
838	RH	E	T-HC-FW-D-ME	Hot Cell Shield Assemblies	11/1/2004	\$24,000	1 - New	Metweld	PO#046561	T-HC-FW-D-ME-228	
839	RH	E	B-211A	Hot Cell Supply Blower	11/1/2004	\$5,750	1 - New	Rogers&Morgan	Hartzell	B-211A	
840	RH	E	N/A	Hot Cell Work Table	11/1/2004	\$76,000	1 - New	Metweld	PO#043066	N/A	
841	RH	E	T-HC-161-D-M	Hydraulic Compactor	11/1/2004	\$97,000	1 - New	S&G Enterprises	55 AR-S	T-HC-161-D-ME-001	
842	RH	E	T-HC-FW-S-ME	Hydraulic Power Unit	11/1/2004	\$5,000	1 - New	Air & Hydraulic	Q021216001	T-HC-FW-S-ME-010	
843	RH		2085	Hydrolic Punch Driver Kit			4 - Usable	GreenLee Textro	7310SB		
844	RH	E	T-HC-FW-D-ME	Lid Extraction Tool	11/1/2004	\$21,000	1 - New	Scientech	T-HC-06-D-ME-20	T-HC-FW-D-ME-200	
845	RH	E	T-CM-32-D-ME	Manipulator Installation Cart	11/1/2004	\$46,000	1 - New	CRL	D-41343	T-CM-32-D-ME-002	
846	RH	E	HC Water Mis	Marioff Water Mist System	11/1/2004	\$75,000	1 - New	ORR Protection	MAU 150 FS	HC Water Mist	
847	RH	E	T-HC-FW-D-ME	NDA Loader Assembly	11/1/2004	\$4,000	1 - New	Custom Fab.	Build to Print	T-HC-FW-D-ME-212	
848	RH	E	T-HC-FW-D-ME	NDA Loader Tunnel Shield Asmbl	11/1/2004	\$4,000	1 - New	Custom Fab.	Build to Print	T-HC-FW-D-ME-214	
849	RH	E	T-HC-FW-D-ME	NDE Loader Tunnel Shield Asmbl	11/1/2004	\$4,000	1 - New	Custom Fab.	Build to Print	T-HC-FW-D-ME-214	
850	RH	E	T-HC-FW-D-ME	NDE Poly Shielding	11/1/2004	\$4,000	1 - New	Custom Fab.	Build to Print	T-HC-FW-D-ME-232	
851	RH	E	T-HC-FW-D-ME	Pass Thru/Airlock from Rm 231	11/1/2004	\$54,000	1 - New	Metweld	PO#048456	T-HC-FW-D-ME-126	
852	RH	E	T-HC-FW-A-ME	Pivot Shear Table	11/1/2004	\$4,000	1 - New	Ind. Fab & Repa	T-HC-FW-D-SS-20	T-HC-FW-A-ME-001	
853	RH	E	RH Heat Seal	RH Concrete Cask Heat Sealer	11/1/2004	\$214,000	1 - New	Aline	Custom Fab	RH Heat Sealer	
854	RH	E	T-HC-FW-D-ME	RH Hotcell NDE Load Cart	11/1/2004	\$4,000	1 - New	Custom Fab.	Build to Print	T-HC-FW-D-ME-211	
855	RH	E	T-HC-FW-D-ME	RH Hotcell Portals	11/1/2004	\$60,000	1 - New	Metweld	PO#045365	T-HC-FW-D-ME-228	

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856	RH	E	T-HC-32-D-ME	Thru Wall Manipulators (2)	11/1/2004	\$150,000	1 - New	CRL	EH-D-X		T-HC-32-D-ME-002
857	RH	E	T-HC-32-D-ME	Thru Wall Manipulators (2)	11/1/2004	\$170,000	1 - New	CRL	F-X		T-HC-32-D-ME-001
858	RH	E	T-HC-FW-D-ME	Tungsten Shielding	11/1/2004	\$18,000	1 - New	Metweld	PO#046256		T-HC-FW-D-ME-202
859	RH	E	X-Y-Z Crane	X-Y Crane	11/1/2004	\$83,000	1 - New	Han-Tek/LRM	PO#047505		X-Y-Z Crane
860	SL	E	T-102A	1,000 gal. SS Cone Btm. Tk	11/1/2003	\$14,000	1 - New	Knight Fabricto	5'O.D. x 7'		T-102A
861	SL	E	T-102B	1,000 gal. SS Cone Btm. Tk	11/1/2003	\$14,000	1 - New	Knight Fabricto	5'O.D. x 7'		T-102B
862	SL	E	Various	2 Cont. Level Ind. 1 per tank	11/1/2003	\$8,000	1 - New	Drexelbrook	509-0075-713-00		Various
863	SL	E	0781QE	2 Ton Manip. Hoist/Monorail	11/1/2003	\$4,000	1 - New	Custom Fab.	CM		0781QE
864	SL	E	Various	2 Ton Monorail	11/1/2003	\$4,000	1 - New	Custom Fab.	Build to Print		Various
865	SL	E	T-101A	5,200 gal. SS Cone Btm. Tk	11/1/2003	\$26,000	1 - New	Knight Fabricto	9'O.D. x 9 1/2'		T-101A
866	SL	E	T-101B	5,200 gal. SS Cone Btm. Tk	11/1/2003	\$26,000	1 - New	Knight Fabricto	9'O.D. x 9 1/2'		T-101B
867	SL	E	T-SL-FW-D-ME	72-B Caniser Grapple	11/1/2003	\$10,000	1 - New	Met Weld	Build to Print		T-SL-FW-D-ME-207
868	SL	E	Various	72-B Canister Bogie	11/1/2003	\$42,000	1 - New	Custom Fab.	Build to Print		Various
869	SL	E	Various	72-B Cask Bogie	11/1/2003	\$40,000	1 - New	Custom Fab.	Build to Print		Various
870	SL	E	Various	72-B Cask Loadout System	11/1/2003	\$422,000	1 - New	Metweld	PO#04528		Various
871	SL	E	Various	72-B Lift Yoke w/ Test Fixture	11/1/2003	\$20,000	1 - New	Custom Fab.	Build to Print		Various
872	SL	E	Various	72-B OV/IV Lid Hoist	11/1/2003	\$4,000	1 - New	Custom Fab.	Build to Print		Various
873	SL	E	Various	72-B Platform	11/1/2003	\$25,000	1 - New	Custom Fab.	Build to Print		Various
874	SL	E	T-SL-32-D-FB	72-B Swipe Manipulator	11/1/2003	\$80,000	1 - New	CRL	E-HD-X		T-SL-32-D-FB-001
875	SL	E	T-SL-FW-D-ME	72-B Swipe Test Bag Out Asmbl	11/1/2003	\$6,000	1 - New	Custom Fab.	Build to Print		T-SL-FW-D-ME-204
876	SL	E	Various	8 Level Switches/4 per tank	11/1/2003	\$16,000	1 - New	Drexelbrook	RNL3-1100-DC1F		Various
877	SL	E	P-403A	AOD Sump Pump	11/1/2003	\$2,500	1 - New	Wilden	P-2		P-403A
878	SL	E	T-SL-FW-D-SS	Canister Storage Rack	11/1/2003	\$4,000	1 - New	Custom Fab.	PtB		T-SL-FW-D-SS-201
879	SL	E	P-101A	Centrifugal Pump	11/1/2003	\$12,500	1 - New	Blackmer/Voigt-	1x3-10/A/LD17		P-101A
880	SL	E	P-101B	Centrifugal Pump	11/1/2003	\$12,500	1 - New	Blackmer/Voigt-	1x3-10/A/LD17		P-101B
881	SL	E	P-101C	Centrifugal Pump	11/1/2003	\$12,500	1 - New	Blackmer/Voigt-	1x3-10/A/LD17		P-101C
882	SL	E	P-101D	Centrifugal Pump	11/1/2003	\$12,500	1 - New	Blackmer/Voigt-	1x3-10/A/LD17		P-101D
883	SL	E	S-102A	Closed Pack Hydroclone	11/1/2003	\$14,000	1 - New	Krebs Engineer	CP1-M8-M1647-FW		S-102A
884	SL	E	S-102B	Closed Pack Hydroclon	11/1/2003	\$40,000	1 - New	Krebs Engineer	CP1-M8-M1647-FW		S-102B
885	SL	E	108526	Dried SL Filling Sta. Cntrl. P	11/1/2003	\$9,000	1 - New	Sloan Fluid Acc	Build to Print		108526
886	SL	E	B-323	Isolok Sample Cabinet Blower	11/1/2003	\$1,000	1 - New	Cincinnati Fan	PB-10A		B-323
887	SL	E	M-102B	Mag Drive Tank Mixer	11/1/2003	\$10,500	1 - New	Magna Safe	MST 20/27.5/68		M-102B
888	SL	E	M-102A	Mag Drive Tank Mixer	11/1/2003	\$16,000	1 - New	Magna Safe	MST 20/27.5/68		M-102A
889	SL	E	M-101B	Mag Drive Tank Mixer	11/1/2003	\$10,500	1 - New	Magna Safe	MST 20/36.5/45		M-101B
890	SL	E	M-101A	Mag Drive Tank Mixer	11/1/2003	\$16,000	1 - New	Magna Safe	MST 20/36.5/45		M-101A
891	SL	E	P-102A	Peristaltic Sludge Pump	11/1/2003	\$8,000	1 - New	Blackmer/Voigt-	A50		P-102A
892	SL	E	P-102C	Peristaltic Sludge Pump	11/1/2003	\$8,000	1 - New	Blackmer/Voigt-	A50		P-102C
893	SL	E	P-102B	Peristaltic Sludge Pump	11/1/2003	\$8,000	1 - New	Blackmer/Voigt-	A50		P-102B
894	SL	E	P-102D	Peristaltic Sludge Pump	11/1/2003	\$8,000	1 - New	Blackmer/Voigt-	A50		P-102D
895	SL	E	SL Window	Shield Window	11/1/2003	\$50,000	1 - New	Custom Fab.	Build to Print		SL Window
896	SL	E	V-101	SL Dryer System	11/1/2003	\$534,000	1 - New	Jaygo	88 cubic foot		V-101
897	SL	E	P-651/T-651	SL Pump Seal Fluid System	11/1/2003	\$7,000	1 - New	AESSEAL	PP/W		P-651/T-651
898	SL	E	SMP-102A	SL Tank ISOLOK Sampler	11/1/2003	\$30,000	1 - New	Bristol Equipme	SAB-31-04-04		SMP-102A
899	SL	E	SMP-102B	SL Tank ISOLOK Sampler	11/1/2003	\$30,000	1 - New	Bristol Equipme	SAB-31-04-04		SMP-102B
900	SL	E	Various	Sludge Canister Filling	11/1/2003	\$106,000	1 - New	Custom	N/A		Various

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901	SL	E	Various	Transfer Bell	11/1/2003	\$4,000	1 - New	Custom Fab.	Build to Print	Various
902	SN		Various	16 Level Switches/4 per tank*	11/1/2003	\$16,000	4 - Usable	Drexelbrook	RNL3-6100-DC1F	Various
903	SN		T-103A	7,800 gal. SS Cone Btm. Tk*	11/1/2003	\$35,000	4 - Usable	Knight Fabricat	12'O.D. x 8 1/2	T-103A
904	SN		T-103B	7,800 gal. SS Cone Btm. Tk*	11/1/2003	\$35,000	4 - Usable	Knight Fabricat	12'O.D. x 8 1/2	T-103B
905	SN		T-107	7,800 gal. SS Cone Btm. Tk*	11/1/2003	\$35,000	4 - Usable	Knight Fabricat	12'O.D. x 8 1/2	T-107
906	SN		T-109	7,800 gal. SS Cone Btm. Tk*	11/1/2003	\$35,000	4 - Usable	Knight Fabricat	12'O.D. x 8 1/2	T-109
907	SN		P-401B	AOD Sump Pump*	11/1/2003	\$2,500	4 - Usable	Wilden	P-2	P-401B
908	SN		P-401A	AOD Sump Pump*	11/1/2003	\$2,500	4 - Usable	Wilden	P-2	P-401A
909	SN		P-105B	Centrifugal Pump*	11/1/2003	\$12,500	4 - Usable	Blackmer/Voigt-	1x2-10/A/LD17	P-105B
910	SN		P-105C	Centrifugal Pump	11/1/2003	\$12,500	4 - Usable	Blackmer/Voigt-	1x2-10/A/LD17	P-105C
911	SN		P-105-D	Centrifugal Pump*	11/1/2003	\$12,500	4 - Usable	Blackmer/Voigt-	1x2-10/A/LD17	P-105-D
912	SN		P-112A	Centrifugal Pump*	11/1/2003	\$12,500	4 - Usable	Blackmer/Voigt-	1x2-10/A/LD17	P-112A
913	SN		P-112B	Centrifugal Pump*	11/1/2003	\$12,500	4 - Usable	Blackmer/Voigt-	1x2-10/A/LD17	P-112B
914	SN		P-113A	Centrifugal Pump	11/1/2003	\$12,500	4 - Usable	Blackmer/Voigt-	1x2-10/A/LD17	P-113A
915	SN		P-113B	Centrifugal Pump	11/1/2003	\$12,500	4 - Usable	Blackmer	1x2-10/A/LD17	P-113B
916	SN		P-105A	Centrifugal Pump*	11/1/2003	\$12,500	4 - Usable	Blackmer/Voigt-	1x2-10/A/LD17	P-105A
917	SN		Various	Cont. Level Ind. 1 per tank*	11/1/2003	\$8,000	4 - Usable	HMI	NA	Various
918	SN		V-503	Evaporator System w/shielding*	11/1/2003	\$1,008,000	4 - Usable	Buflovak (BTC)	Forced Circ	V-503
919	SN		B-124	Isolok Sampler Cabinet Blower	11/1/2003	\$1,000	4 - Usable	Cincinnati Fan	PB-10A	B-124
920	SN		T-SN-74-D-ME	Liner Fill Sleeve Heat Sealer	11/1/2003	\$46,000	4 - Usable	Aline Systems-7	SNIS-1	2886-1
921	SN		M-103A	Mag Drive Tank Mixer*	11/1/2003	\$16,000	4 - Usable	Magna Safe	MST 20/28.5/45	M-103A
922	SN		M-103B	Mag Drive Tank Mixer*	11/1/2003	\$16,000	4 - Usable	Magna Safe	MST 20/28.5/45	M-103B
923	SN		M-107	Mag Drive Tank Mixer*	11/1/2003	\$16,000	4 - Usable	Magna Safe	MST 20/28.5/45	M-107
924	SN		M-109	Mag Drive Tank Mixer*	11/1/2003	\$16,000	4 - Usable	Magna Safe	MST 20/28.5/45	M-109
925	SN		T-CM-FW-S-ME	Mini-Glovebox for SN Samples*	11/1/2003	\$20,000	4 - Usable	Terra Universal	1690-04-29782-0	T-CM-FW-S-ME-021
926	SN		T-SN-FW-D-ME	SN Bogie	11/1/2003	\$19,000	4 - Usable	Valley Mech-38	30 Ton Cask	T-SN-FW-D-ME-201
927	SN		V-103	SN Dryer System*	11/1/2003	\$534,500	4 - Usable	Jaygo	88 cubic foot	V-103
928	SN		B-202	SN Evaporator Blower	11/1/2003	\$70,000	4 - Usable	Hoffman	74104A	B-202
929	SN		F-202	SN Evaporator Filtration Syste	11/1/2003	\$94,000	4 - Usable	Barneby Sutclif	2000 scfm	F-202
930	SN		H-202	SN Evaporator Superheater*	11/1/2003	\$71,000	4 - Usable	Chrmalox	125 kW/375 F	H-202
931	SN		P-601/T-601	SN Pump Seal Fluid System*	11/1/2003	\$7,000	4 - Usable	AESSEAL	PP/W	P-601/T-601
932	SN		SMP-103A	SN Tank Isolok Sampler*	11/1/2003	\$30,000	4 - Usable	Bristol Equip.	SAB-31-04-04	SMP-103A
933	SN		SMP-103B	SN Tank Isolok Sampler*	11/1/2003	\$30,000	4 - Usable	Bristol Equip.	SAB-31-04-04	SMP-103B
934	SN		SMP-107	SN Tank Isolok Sampler*	11/1/2003	\$30,000	4 - Usable	Bristol Equip.	SAB-31-04-04	SMP-107
935	SN		SMP-109	SN Tank Isolok Sampler*	11/1/2003	\$30,000	4 - Usable	Bristol Equip.	SAB-31-04-04	SMP-109
936	SN		V-321	SN/SL Dryer Relief KO Vessel	11/1/2003	\$9,000	4 - Usable	Custom	42"IDx8'	V-321
937	UE		B-03	1,600 kw Electric Boiler Syste	11/1/2003	\$209,000	4 - Usable	Precision Boile	ST42D-1600-150-	B-03
938	UE	E	T-CM-FW-S-EE	30 KVA UPS	11/1/2003	\$76,000	4 - Usable	Edwards/Solid S	2SE3030U-48-13-	T-CM-FW-S-EE-103
939	UE	E	C-100	30 Ton Cask Handling Crane	11/1/2003	\$186,000	4 - Usable	A&M/DeShazo	Series 50-19596	C-100
940	UE	E	C-102	Air Compressor System	11/1/2003	\$42,000	4 - Usable	Kaeser/A&W Comp	BS61	C-102
941	UE	E	C-102 BU	Back-up Air Compressor System	11/1/2003	\$35,000	4 - Usable	Gardner Denver-	EBH 99D	C-102 BU
942	UE	E	T-UT-58-M-EE	Back-up Diesel Generator, 500	11/1/2003	\$81,000	4 - Usable	Nixon Power	Kohler-ROZD-4	T-UT-58-M-EE-001
943	UE	E	P-312A	Centrifugal Pump and Skid	11/1/2003	\$13,000	4 - Usable	Blackmer/Voigt-	1x1.5-6/S	P-312A
944	UE	E	P-312B	Centrifugal Pump and Skid	11/1/2003	\$13,000	4 - Usable	Blackmer/Voigt-	1x1.5-6/S	P-312B
945	UE	E	P-301A	Chill Water Supply Pump	11/1/2003	\$18,000	4 - Usable	Blackmer/Voigt-	4x6-13/A/LD17	P-301A

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946	UE	E	P-301B	Chill Water Supply Pump	11/1/2003	\$18,000	4 - Usable	Blackmer/Voigt-	4x6-13/A/LD17	P-301B
947	UE	E	T-CM-72-D-EE	Control Room PLC/HMI	11/1/2003	\$404,000	4 - Usable	Innovative Cntr	T-CM-FW-S-IC-00	T-CM-72-D-EE-001
948	UE	E	T-UT-37-A-EE	EEB/Motor Control Center	11/1/2003	\$665,000	4 - Usable	Edwards Supply	GE 6F2-01195EC	T-UT-37-A-EE-005
949	UE	E	T-CM-94-M-MT	Employee Notification (PA) Sys	11/1/2003	\$75,000	4 - Usable	GAI-Tronics	SSM100	T-CM-94-M-MT-001
950	UE	E	X-301	Environmental Chiller, 300 Ton	11/1/2003	\$88,000	4 - Usable	York	YCAS0300EC46YFA	X-301
951	UE	E	PO#054917	Grounding & Lighting Protectio	11/1/2003	\$101,000	4 - Usable	Brozelco	Custom	PO#054917
952	UE	E	2462	Nitrogen Sweep/Pad Layup Syste	12/1/2004	\$45,000	4 - Usable	Custom	5 & 50 PSIG	T-UT-FW-D-ME-150
953	UE	E	PO#040587	PB Stack	11/1/2003	\$43,000	4 - Usable	Hoffman	Custom	PO#040587
954	UE	E	PO#56986	PCM Enclosure	11/1/2003	\$6,200	4 - Usable	Brozelco	Custom	PO#56986
955	UE	E	T-CM-95-D-FP	Pre-Action Sprinkler System	11/1/2003	\$176,000	4 - Usable	Morristown/Viki	ECOH-EL	T-CM-95-D-FP-001
956	UE	E	X-311	Process Chiller, 60 Ton	11/1/2003	\$24,000	4 - Usable	York	YCAL0060EC46XBA	X-311
957	UE	E	T-CM-4-D-ME-	Remote Viewing (CCTV) System	11/1/2003	\$190,000	4 - Usable	The Providence	T-CM-FW-S-IC-00	T-CM-4-D-ME-301
958	UE	E	C-851	Sprinkler System Sup. Air Comp	11/1/2003	\$1,000	4 - Usable	EMGLO	K34S-30S	C-851
959	UE	E	VRC	Vertical Reciprocating Conveyo	11/1/2003	\$32,000	4 - Usable	Gillespie	PWE-HBG	VRC
960	Choose	E,S	1468	Bar Code Scanner Kit	9/25/2006	\$961	1 - New	DataPro Solutio	P360	M1J70V20R
961	Choose	E,S	1469	Bar Code Scanner Kit	9/25/2006	\$961	1 - New	DataPro Solutio	P360	M1J74J52L
962	Choose	E,S	1470	Bar Code Scanner Kit	9/25/2006	\$961	1 - New	DataPro Solutio	P360	M1J74J69R
963	Choose	E,S	1471	Bar Code Scanner Kit	9/25/2006	\$961	1 - New	DataPro Solutio	P360	M1J70V17D
964	Choose	E,S	1472	Bar Code Scanner Kit	9/25/2006	\$961	1 - New	DataPro Solutio	P360	M1J70V21Y
965	Choose	E,S	1473	Bar Code Scanner Kit	9/25/2006	\$961	1 - New	DataPro Solutio	P360	M1J74J46Y
966	Choose	E,S	1474	Bar Code Scanner Kit	9/25/2006	\$961	1 - New	DataPro Solutio	P360	M1J70V18J
967	Choose	E,S	1475	Bar Code Scanner Kit	9/25/2006	\$961	1 - New	DataPro Solutio	P360	M1J73F61H
968	Choose			CSU/DSU	7/15/2006		4 - Usable	ADC	Campur	2.17E+08
969	Choose			CSU/DSU	7/15/2006		4 - Usable	ADC	Campus	2.20E+08
970	Choose			CSU/DSU	7/15/2006		4 - Usable	ADC	Campus	2.17E+08
971	Choose			CSU/DSU	7/15/2006		4 - Usable	ADC	Campus	2.17E+08
972	IT	E,S	1408	Computer, Desktop	7/15/2006		4 - Usable	IBM	Intelastation M	KP-ZZT14
973	IT	E,S	1402	Computer, Desktop	6/26/2005	\$3,528	1 - New	Dell	Precision 690	F8037B1
974	IT	E,S	1403	Computer, Desktop	6/26/2005	\$3,528	1 - New	Dell	Precision 690	19037B1
975	IT	E,S	1404	Computer, Desktop	6/26/2005	\$3,528	1 - New	Dell	Precision 690	39037B1
976	IT	E	1441	Network Composer	6/30/2006	\$3,123	1 - New	Cymphonix	DC30	062228C0137
977	IT		2460	Television			4 - Usable	Panasonic	CT-32E13-1G	MA31140035
978	IT	E	2428	Computer, Desktop	11/21/2006	\$1,545	1 - New	Dell	GX620	BYHT4C1
979	IT	E	1494	Printer	10/17/2006	\$1,916	1 - New	Dell	5310N	790VTFC
980	IT	E		Television			4 - Usable	Panasonic	CT-32E13-1G	MA31140035
981	IT	S	1395	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP	N/A
982	IT	S	1387	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP	N/A
983	IT	S	1385	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP	N/A
984	IT	S	1393	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP	N/A
985	IT	S	1397	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP	N/A
986	IT	S	1389	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP	N/A
987	IT	S	1570	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP	N/A
988	IT	S	1586	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP	N/A
989	IT	S	2201	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP	N/A
990	IT	S	2199	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP	N/A

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991	IT	S		2196	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP	N/A	
992	IT	S			Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP	N/A	
993	IT	S		1415	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP	N/A	
994	IT	S		1419	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP	N/A	
995	IT	S		1357	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP	N/A	
996	IT	S		1312	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP	N/A	
997	IT	S		1383	Monitor, Flat Panel			4 - Usable	IBM		N/A	
998	IT	S		1571	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP	N/A	
999	IT				Computer, Laptop	1/26/2007	\$3,123	1 - New	Dell	Latitude D420	4YKQFC1	
1000	IT			1563	Computer, Laptop	1/11/2007	\$2,824	1 - New	Dell	Latitude D820	G2Z3DC1	
1001	IT			1597	Computer, Laptop	1/11/2007	\$2,824	1 - New	Dell	Latitude D820	91Z3DC1	
1002	IT			1595	Computer, Laptop	1/11/2007	\$2,824	1 - New	Dell	Latitude D820	C1Z3DC1	
1003	IT			1605	Computer, Laptop	1/11/2007	\$2,824	1 - New	Dell	Latitude D820	22Z3DC1	
1004	IT			1568	Computer, Laptop	1/11/2007	\$2,824	1 - New	Dell	Latitude D820	82Z3DC1	
1005	IT			1606	Computer, Laptop	1/11/2007	\$2,824	1 - New	Dell	Latitude D820	43Z3DC1	
1006	IT	E		1580	Server	1/26/2007	\$7,459	1 - New	Dell	PowerEdge 2950	GT2XFC1	
1007	IT	E		1581	Server	1/26/2007	\$7,459	1 - New	Dell	PowerEdge 2950	1V2XFC1	
1008	IT	E		1582	Server	2/1/2007	\$5,188	1 - New	Dell	PowerEdge 2950	3B90HC1	
1009	IT	E		1583	External Storage Array	2/1/2007	\$8,140	1 - New	Dell	PwrVault tMD1000	G4GWGC1	
1010	IT			1561	Computer, Laptop	11/21/2006	\$2,873	1 - New	Dell	M65	7GK15C1	
1011	IT	E		1588	Computer, Desktop	1/11/2007	\$1,735	1 - New	Dell	Optiflex 745	8KJ7DC1	
1012	IT	E		1587	Computer, Desktop	1/11/2007	\$1,735	1 - New	Dell	Optiflex 745	9KJ7DC1	
1013	IT	E		1573	Computer, Desktop	1/11/2007	\$1,735	1 - New	Dell	Optiflex 745	BKJ7DC1	
1014	IT	E		1566	Computer, Desktop	1/11/2007	\$1,735	1 - New	Dell	Optiflex 745	CKJ7DC1	
1015	IT	E			Computer, Desktop	1/11/2007	\$1,735	1 - New	Dell	Optiflex 745	FKJ7DC1	
1016	IT	E		1575	Computer, Desktop	1/11/2007	\$1,735	1 - New	Dell	Optiflex 745	GKJ7DC1	
1017	IT	E		1574	Computer, Desktop	1/11/2007	\$1,735	1 - New	Dell	Optiflex 745	HKJ7DC1	
1018	IT	E		1577	Computer, Desktop	1/11/2007	\$1,735	1 - New	Dell	Optiflex 745	JKJ7DC1	
1019	IT	E		1564	Computer, Desktop	1/11/2007	\$1,735	1 - New	Dell	Optiflex 745	1LJ7DC1	
1020	IT	E		1569	Computer, Desktop	1/11/2007	\$1,735	1 - New	Dell	Optiflex 745	2LJ7DC1	
1021	IT	E		1565	Computer, Desktop	1/15/2007	\$1,735	1 - New	Dell	Optiflex 745	CYB6DC1	
1022	IT	E		1567	Computer, Desktop	1/15/2007	\$1,735	1 - New	Dell	Optiflex 745	BYB6DC1	
1023	IT	S		1499	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP	N/A	
1024	IT	E		1478	Laser Printer			4 - Usable	Lexmark	X6170		
1025	IT	E		1495	Label Printer			1 - New	Zebra	Z6M Plus	02C06250325	
1026	IT	E	X178608		Videocassette Recorder			4 - Usable	Sony	VO-5600		43553
1027	IT	E	X178873		Videocassette Recorder			X - Salvage	Sony	VO-5600		42547
1028	IT	S		1496	VCR/DVD Recorder			4 - Usable	RCA			602200225
1029	IT	S		1497	Television			4 - Usable	Sony	Trinitron		2027467
1030	Choose	E		1498	Refrigerator			4 - Usable	Amana		20	
1031	IT	S		1576	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP	N/A	
1032	IT	S		1584	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP	N/A	
1033	IT	S		2198	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP	N/A	
1035	IT	S		1589	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP	N/A	
1036	IT	S		1590	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP	N/A	

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1037	IT	E		Laser Printer, Color	10/25/2006	\$631	1 - New	Dell	3110CN		FMG5991
1038	RAD	S	1770	Radiodosimeter	12/14/2006	\$378	R - Removed	Laurus	RAD 60R		262303
1039	RAD	S	1771	Radiodosimeter	12/14/2006	\$378	R - Removed	Laurus	RAD 60R		261165
1040	RAD	S	1772	Radiodosimeter	12/14/2006	\$378	R - Removed	Laurus	RAD 60R		261174
1041	RAD	S	1775	Radiodosimeter	12/14/2006	\$378	R - Removed	Laurus	RAD 60R		262488
1042	RAD	S	1778	Radiodosimeter	12/14/2006	\$378	R - Removed	Laurus	RAD 60R		262298
1043	RAD	S	1779	Radiodosimeter	12/14/2006	\$378	R - Removed	Laurus	RAD 60R		262307
1044	RAD	S	2112	Radiodosimeter	12/14/2006	\$378	R - Removed	Laurus	RAD 60R		262300
1045	RAD	S	2113	Radiodosimeter	12/14/2006	\$378	R - Removed	Laurus	RAD 60R		262301
1046	RAD	S	2114	Radiodosimeter	12/14/2006	\$378	R - Removed	Laurus	RAD 60R		262304
1047	RAD	S	2116	Radiodosimeter	12/14/2006	\$378	R - Removed	Laurus	RAD 60R		262445
1048	RAD	S	1780	Radiodosimeter	12/14/2006	\$378	R - Removed	Laurus	RAD 60R		262297
1049	RAD	S	1782	Radiodosimeter	12/14/2006	\$378	R - Removed	Laurus	RAD 60R		262302
1050	RAD	S	1783	Radiodosimeter	12/14/2006	\$378	R - Removed	Laurus	RAD 60R		262305
1051	CON	E	1713	Utility Vehicle	2/27/2007	\$13,807	1 - New	Polaris	Ranger 4x4		4XARH50A874092278
1052	CON	E	1714	Utility Vehicle	2/27/2007	\$15,627	1 - New	Polaris	Ranger 6x6		4XARF68A77D047834
1053	OE	E	1716	Utility Cabinet	3/14/2007	\$948	1 - New	JoBox		694990	N/A
1054	CON	E		Forklift Boom Attachment	3/12/2007	\$778	1 - New		4DB21		S4 29355
1055	CON	E	1710	Storage Cabinet	2/27/2007	\$712	1 - New		4477T3		N/A
1056	CON	E	1711	Storage Cabinet	2/27/2007	\$712	1 - New		4477T3		N/A
1057	OE	E	1769	Earmic System	2/7/2007	\$560	1 - New	Motorola	BDN6704B		0646S0363
1058	OE	E	1767	Earmic System	2/7/2007	\$560	1 - New	Motorola	BDN6704B		0646S0382
1059	OE	E	1768	Earmic System	2/7/2007	\$560	1 - New	Motorola	BDN6704B		0646S0369
1060	CH	E	1709	Mobile Cabinet / Workbench	2/7/2007	\$792	1 - New		4624-T43		N/A
1061	OE	E	1712	Locker, 2-tier, 3 frame	3/5/2007	\$523	1 - New		5JN42		N/A
1062	IT	S	2440	Monitor, Flat Panel			4 - Usable	Dell	FP		N/A
1063	IT	E,S	2037	Monitor, Flat Panel			4 - Usable	Dell	FP - Large		N/A
1064	IT	S	1784	Monitor, Flat Panel			1 - New	Dell	1907FP		N/A
1065	IT	S	1786	Monitor, Flat Panel			1 - New	Dell	FP		N/A
1066	FN	E	1788	Conference Table	12/7/2006	\$560	1 - New				N/A
1067	FN	E	1789	Desk - L	12/7/2006	\$512	1 - New				
1068	FN	E	1790	Desk - L	12/7/2006	\$512	1 - New				
1069	FN	E	1791	Desk - L	12/7/2006	\$512	1 - New				
1070	FN	E	1792	Desk - L	12/7/2006	\$512	1 - New				
1071	FN	E	1500	Desk - L	12/7/2006	\$512	1 - New				
1072	FN	E	1501	Desk - L	12/7/2006	\$512	1 - New				
1073	FN	E	1502	Desk - L	12/7/2006	\$512	1 - New				
1074	FN	E	1503	Desk - L	12/7/2006	\$512	1 - New				
1075	FN	E	1504	Desk - L	12/7/2006	\$512	1 - New				
1076	FN	E	1505	Desk - L	12/7/2006	\$512	1 - New				
1077	FN	E	1506	Desk - L	12/7/2006	\$512	1 - New				
1078	FN	E	1520	Desk - L	12/7/2006	\$512	1 - New				
1079	FN	E	1521	Desk - L	12/7/2006	\$512	1 - New				
1080	FN	E	1522	Desk - L	12/6/2006	\$512	1 - New				
1081	FN	E	1523	Desk - L	12/7/2006	\$512	1 - New				

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1082	FN	E	1524	Desk - L	12/7/2006	\$512	1 - New				
1083	FN	E	1525	Desk - L	12/7/2006	\$512	1 - New				
1084	FN	E	1526	Desk - L	12/7/2006	\$512	1 - New				
1085	RAD	S	02121/02122	Survey Instrument w/Probe			4 - Usable	Ludlum			
1086	IT	E	1508	Telephone, Conference	1/24/2007	\$762	1 - New	Polycom	SoundStation2		H806360208E0
1087	FN	E	1510	File Cabinet, Fireproof	4/24/2006	\$890	4 - Usable	Fireking	2 Drawer		FL2006080004
1088	Choose		1020	Automated Ext Defibrillator	4/3/2006	\$1,595	1 - New	Zoll			
1089	IT	S	1787	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP		N/A
1090	IT	S	1391	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP		N/A
1091	IT	S	1401	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP		N/A
1092	IT	S	1489	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP		N/A
1093	IT	E	1528	Telephone, Conference		\$550	4 - Usable	Polycom	SoundStation2W		G204390071937
1094	IT	E	1529	Telephone, Conference	1/24/2007	\$762	1 - New	Polycom	SoundStation 2		H806360208D0
1095	IT	S	1596	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP		N/A
1096	CH	S	2443	Camera, Digital	4/19/2007	\$250	1 - New	Kodak	Z710		KCXGG64603479
1097	CH	S	2444	Camcorder, Digital	4/19/2007	\$500	7 - Repairable	Sony	DCR-DVD308		2364684
1098	OE	E	1728	Pallet, Spill Containment	3/29/2007	\$597	1 - New		K17-3103		N/A
1099	OE	E	1729	Pallet, Spill Containment	3/29/2007	\$597	1 - New		K17-3103		N/A
1100	OE	E	1730	Pallet, Spill Containment	3/29/2007	\$597	1 - New		K17-3103		N/A
1101	OE	E	1731	Pallet, Spill Containment	3/29/2007	\$597	1 - New		K17-3103		N/A
1102	OE	E	1732	Pallet, Spill Containment	3/29/2007	\$597	1 - New		K17-3103		N/A
1103	OE	E	1733	Pallet, Spill Containment	3/29/2007	\$597	1 - New		K17-3103		N/A
1104	FN	E	1723	Automated Ext Defibrillator	3/27/2007	\$1,813	1 - New	Zoll	AED Plus		X06L102844
1105	FN	E	2445	Desk - L	2/28/2007	\$512	1 - New				N/A
1106	IT	S	1598	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP		N/A
1107	IT	S	1600	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP		N/A
1108	IT	S	1599	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP		N/A
1109	IT	S	1601	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP		N/A
1110	IT	S	1602	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP		N/A
1111	IT	S	1603	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP		N/A
1112	IT	S	1596	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP		N/A
1113	IT	S	1038	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP		N/A
1114	ME	E	1726	Receiver, Outdoor	4/18/2007	\$748	1 - New	Pelco	ERD2200		713-9867
1115	ME	E	1724	Camera, Pan/Tilt w/Feed Thru	4/18/2007	\$2,176	1 - New	Pelco	PT680-240		719-4702
1116	IT	S	1604	Monitor, Flat Panel	10/17/2006	\$268	1 - New	Dell	1907FP		N/A
1117	OE	E	1727	Drum Handler, Hock-and-Lift	4/25/2007	\$626	1 - New	Morse	185A-HD		1006
1118	IT	S	1530	Camera, Digital	5/3/2007	\$265	1 - New	Canon	PC1169		2128418291
1119	ME	E	1740	C-Mount Lens	4/23/2007	\$531	1 - New	Computar	COMH 10Z0		182225
1120	ME	E	1741	C-Mount Lens	4/23/2007	\$531	1 - New	Computar	COMH 10Z0		182222
1121	OE	E	1736	Radio, CP 200, 16 Channel	4/20/2007	\$517	1 - New		AAH5ORDC9AA2AN		018THE0809
1122	OE	E	1737	Radio, CP 200, 16 Channel	4/20/2007	\$517	1 - New		AAH5ORDC9AA2AN		018THE0916
1123	OE	E	1738	Radio, CP 200, 16 Channel	4/20/2007	\$517	1 - New		AAH5ORDC9AA2AN		018THE0794
1124	OE	E	1739	Radio, CP 200, 16 Channel	4/20/2007	\$517	1 - New		AAH5ORDC9AA2AN		
1125	ME	E	1742	C-Mount Lens	4/23/2007	\$531	R - Removed	Computar	COMH10Z0		182205
1126	CONT	E	1752	20' sea land container		\$3,600	4 - Usable	Specialty Cont	Seal Land		056302 014

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1127	CONT	E	1751	20' sea land container		\$3,600	4 - Usable	Specialty Cont	Sea Land		056302 013
1128	CONT	E	1734	20' sea land container		\$3,600	4 - Usable	Specialty Cont	Sea Land		056302 012
1129	CONT	E		20' sea land container		\$3,600	4 - Usable	Specialty Cont	Sea Land		056302 009
1130	CONT	E	1637	20' sea land container		\$3,600	4 - Usable	Specialty Cont	Sea Land		056302 016
1131	CONT	E		20' sea land container		\$3,600	4 - Usable	Specialty Cont	Sea Land		056302 015
1132	CONT	E		20' sea land container		\$3,600	4 - Usable	Specialty Cont	Sea Land		056302 006
1133	CONT	E	1696	20' sea land container		\$3,600	4 - Usable	Specialty Cont	Sea Land		056302 004
1134	CONT	E	1700	20' sea land container		\$3,600	4 - Usable	Specialty Cont	Sea Land		056302 003
1135	CONT	E	1698	20' sea land container		\$3,600	4 - Usable	Specialty Cont	Sea Land		056302 005
1136	CONT	E		20' sea land container		\$3,600	4 - Usable	Specialty Cont	Sea Land		056302 008
1137	CONT	E	1699	20' sea land container		\$3,600	4 - Usable	Specialty Cont	Sea Land		056302 007
1138	CONT	E	1693	20' sea land container		\$3,600	4 - Usable	Specialty Cont	Sea Land		056302 017
1139	CONT	E	1735	20' sea land container		\$3,600	4 - Usable	Specialty Cont	Sea Land		056302 011
1140	CONT	E		20' sea land container		\$3,600	4 - Usable	Specialty Cont	Sea Lab		056302 010
1141	CONT	E		20' sea land container		\$3,600	4 - Usable	Specialty Cont	Sea Land		056302 020
1142	CONT	E	1757	20' sea land container		\$3,684	4 - Usable	Allstate	Sea Land		7S (UW 001)
1143	CONT	E	1758	20' sea land container		\$3,684	4 - Usable	Allstate	Sea Land		4S - Record Cente
1144	CONT	E		20' sea land container			4 - Usable		Sea Land		7880T-1
1145	CONT	E		20' sea land container			4 - Usable		Sea Land		7880T-2
1146	CONT	E	1146	40' Sea land container			4 - Usable		Sea Land		7880T-3
1147	CONT	E		40' Sea land container			4 - Usable		Sea Land		7880T-4
1148	CONT	E	1479	25' x 10' Sea van container		\$12,500	4 - Usable	Mobile Mini	Sea Land		
1149	CONT	E	1480	25' x 10' Sea land container		\$12,500	4 - Usable	Mobile Mini	Sea Land		
1150	CH	E		Jib Crane, Articulated	11/6/2006	\$19,170	1 - New	Positech	AJ1000-16		004661-01A
1151	HSGS	E	Flexible fab	A size cylinder jacket	1/23/2006	\$1,015	4 - Usable	Scott Specialty	55ALDG120P		
1152	HSGS	E	Flexible fab	A size cylinder jacket	1/23/2006	\$1,015	4 - Usable	Scott Specialty	55ALDG120P		
1153	FN	E	2446	Workstation, 3 work surfaces	5/3/2007	\$700	4 - Usable	Herman Miller			N/A
1154	FN	E	2447	Workstation, 3 work surfaces	5/3/2007	\$700	4 - Usable	Herman Miller			N/A
1155	FN	E	2448	Workstation, 3 work surfaces	5/3/2007	\$700	4 - Usable	Herman Miller			N/A
1156	FN	E	2449	Workstation, 3 work surfaces	5/3/2007	\$700	4 - Usable	Herman Miller			N/A
1157	FN	E	2450	Workstation, 3 work surfaces	5/3/2007	\$700	4 - Usable	Herman Miller			N/A
1158	FN	E	2451	Workstation, 3 work surfaces	5/3/2007	\$700	4 - Usable	Herman Miller			N/A
1159	FN	E	2452	Workstation, 3 work surfaces	5/3/2007	\$700	4 - Usable	Herman Miller			N/A
1160	FN	E	2453	Workstation, 3 work surfaces	5/3/2007	\$700	4 - Usable	Herman Miller			N/A
1161	ME	E	1743	Plasma Cutter	4/19/2007	\$3,875	1 - New	Hypertherm	Powermax 1650		1650-009991
1162	MET	E	2291	Crane Scale			4 - Usable	Dyna Link	MSI-7200		47897
1163	MET	E		Drum Scale			4 - Usable	Mettler Toledo	2158-002065		1146880-1LH
1164	MET	E	2298	Fluke, Power Quality Analyzer			4 - Usable			435	DM 9311060
1165	MET	E	2297	Pressure Module		\$1,000	4 - Usable	Fluke	700PD3		92554302
1166	LS	E		Copier/Scanner/Printer	5/14/2007	\$11,952	1 - New	Toshiba	e350		CPF 422248
1167	CH	E	1744	Pallet Mule	5/17/2007	\$2,580	1 - New		60-58-10M		3Y07052
1168	OE	E	1745	Drum Grabber	5/17/2007		1 - New				5426365
1169	IT	S	1611	Monitor, Flat Panel			1 - New	Dell	e207 FP 20"		N/A
1170	IT	E,S	1617	Computer, Desktop			1 - New	Dell	Precision 690		4X7B0D1
1171	IT	E,S	1616	Computer, Desktop	5/2/2007	\$4,029	1 - New	Dell	Precision 690		GFGJXC1

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1172	IT	E,S	1612	Computer, Desktop	5/2/2007	\$4,029	1 - New	Dell	Precision 690	3GGJXC1
1173	IT	E,S	1613	Computer, Desktop	5/2/2007	\$1,136	1 - New	Dell	Optiplex 745	J9PGXC1
1174	IT	S	1611	Monitor, Flat Panel			1 - New	Dell	1907FP	N/A
1175	IT	S	1608	Monitor, Flat Panel			1 - New	Dell	1907FP	N/A
1176	IT	S	1609	Monitor, Flat Panel			1 - New	Dell	1907FP	N/A
1177	IT	S	1610	Monitor, Flat Panel			1 - New	Dell	1907FP	N/A
1178	IT	S	2454	Telephone, Conference	5/30/2007	\$327	1 - New	Polycom	Voicestation 30	M80710020908
1179	IT	E,S	1615	Monitor, Flat Panel		\$1,965	1 - New	Dell	30" UltraShield	
1180	IT	E,S	1593	Monitor, Flat Panel		\$1,965	1 - New	Dell	30" UltraShield	
1181	IT	E,S	1615	Monitor, Flat Panel		\$1,695	1 - New	Dell	30" UltraShield	
1182	IT	E,S		Monitor, Flat Panel		\$1,965	1 - New	Dell	30" UltraShield	
1183	IT	E,S	1616	Computer, Desktop		\$3,528	1 - New	Dell	Precision 690	
1184	IT	E,S	1612	Computer, Desktop		\$3,528	1 - New	Dell	Precision 690	
1185	IT	E,S	1617	Computer, Desktop		\$3,528	1 - New	Dell	Precision 690	
1186	ME	E	1749	SKF TMEA 2 Laser Shaft Tool	6/7/2007	\$4,265	R - Removed			703043
1187	ME	E	1748	Bibralign Belt Hog Laser Tool	6/7/2007	\$1,650	1 - New		VIB-BELTHOG	13041
1188	IT	E,S	1620	Computer, Desktop	5/2/2007	\$1,136	1 - New	Dell	Optiplex 745	8BPGXC1
1189	IT	S	1621	Monitor, Flat Panel			1 - New	Dell	1907FP	N/A
1190	IT	E,S	1619	Computer, Desktop	5/2/2007	\$1,136	1 - New	Dell	Optiplex 745	B9PGXC1
1191	IT	S	1622	Monitor, Flat Panel			1 - New	Dell	1907FP	N/A
1192	IT	E,S	1614	Computer, Desktop	5/2/2007	\$1,136	1 - New	Dell	Optiplex 745	19PGXC1
1193	ME	E	1747	3HP Electric Motor	6/4/2007	\$798	1 - New		TC-FX / FB-3B	S7F001251
1194	ME	E	1746	Electric Hoist - 10ft, 1/2 Ton	5/22/2007	\$1,972	1 - New	Lodestar	F	L2201ST
1195	IT	E,S	1627	Computer, Desktop			1 - New	Dell	Latitude D820	DVMF2D1
1196	IT	S	1628	Monitor, Flat Panel			1 - New	Dell	1907FP	N/A
1197	IT	E,S	1626	Computer, Desktop			1 - New	Dell	Optiplex 745	FKJ7DC1
1198	IT	E,S	1625	Computer, Desktop	5/2/2007	\$1,136	1 - New	Dell	Optiplex 745	F8PGXC1
1199	IT	E,S	1624	Computer, Desktop	5/2/2007	\$1,136	1 - New	Dell	Optiplex 745	6BPGXC1
1200	IT	E,S	1631	Computer, Desktop			1 - New	Dell	Optiplex 745	4D723D1
1201	IT	E,S	1630	Computer, Desktop			1 - New	Dell	Optiplex 745	3D723D1
1202	IT	E,S	1629	Computer, Desktop			1 - New	Dell	Optiplex 745	6B7Z3D1
1203	ME	E	1638	Camera, Thermal Imaging	6/13/2007	\$6,750	1 - New	FLIR	Thermacam SD	278006901
1204	OE	E	1639	Pallet Mule, 10K Capacity	3/27/2007	\$2,213	1 - New		60-58-10M	5Y0706S
1205	OE	E	1649	Ear Microphone System	6/11/2007	\$615	1 - New		BDN-6646C	0652S0090
1206	OE	E	1648	Ear Microphone System	6/11/2007	\$615	1 - New		BDN-6646C	0652S0091
1207	OE	E	1647	Ear Microphone System	6/11/2007	\$615	1 - New		BDN-6646C	0652S0074
1208	OE	E	1646	Ear Microphone System	6/11/2007	\$615	1 - New		BDN-6646C	0652S0073
1209	OE	E	1645	2-way Radio	6/6/2007	\$517	1 - New	Motorola	AAH5ORDC9AA2AN	018THL4358
1210	OE	E	1644	2-way Radio	6/6/2007	\$517	1 - New	Motorola	AAH5ORDC9AA2AN	018THL4228
1211	OE	E	1643	2-way Radio	6/6/2007	\$517	1 - New	Motorola	AAH5ORDC9AA2AN	018THL4359
1212	OE	E	1642	2-way Radio	6/6/2007	\$517	1 - New	Motorola	AAH5ORDC9AA2AN	018THL4224
1213	OE	E	1641	2-way Radio	6/6/2007	\$517	1 - New	Motorola	AAH5ORDC9AA2AN	018THL4349
1214	OE	E	1640	2-way Radio	6/6/2007	\$517	1 - New	Motorola	AAH5ORDC9AA2AN	018THL4347
1215	IT	E,S	1635	Computer, Desktop			1 - New	Dell	Optiplex 745	GY7Z307
1216	IT	S	1547	Monitor, Flat Panel			1 - New	Dell	1907FP	N/A

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1217	IT	E,S	1634	Computer, Laptop			1 - New	Dell	Latitude D820		GUMF207
1218	IT	E,S	1636	Computer, Desktop			1 - New	Dell	Optiplex 745		7D7Z307
1219	IT	S	1547	Monitor, Flat Panel			1 - New	Dell	1907FP		N/A
1220	IT	E,S	1546	Computer, Desktop			1 - New	Dell	Optiplex 745		D47Z3D1
1221	IT	S	1548	Monitor, Flat Panel			1 - New	Dell	1908FP		N/A
1222	ME	E	1755	515 Temperature Gun	6/25/2007	\$2,139	1 - New		A0515PK		131062
1223	ME	E	1754	2 CH 2130 Machinery Analyzer	6/25/2007	\$17,898	1 - New		A2130A2-TU		131272000
1224	ME	E	1756	Speedvue Laser Speed Sensor	6/25/2007	\$1,649	1 - New		A0430L3		131168
1225	OE	E	1650	Spill Containment Pallet	1/18/2007	\$529	1 - New		K17-3103		N/A
1226	OE	E	1661	Spill Containment Pallet	6/18/2007	\$529	1 - New		K17-3103		N/A
1227	OE	E	1660	Spill Containment Pallet	6/18/2007	\$529	1 - New		K17-3103		N/A
1228	OE	E	1659	Spill Containment Pallet	6/18/2007	\$529	1 - New		K17-3103		N/A
1229	OE	E	1658	Spill Containment Pallet	6/18/2007	\$529	1 - New		K17-3103		N/A
1230	OE	E	1657	Spill Containment Pallet	6/18/2007	\$529	1 - New		K17-3103		N/A
1231	OE	E	1656	Spill Containment Pallet	6/18/2007	\$529	1 - New		K17-3103		N/A
1232	OE	E	1655	Spill Containment Pallet	6/18/2007	\$529	1 - New		K17-3103		N/A
1233	OE	E	1655	Spill Containment Pallet	6/18/2007	\$529	1 - New		K17-3103		N/A
1234	OE	E	1654	Spill Containment Pallet	6/18/2007	\$529	1 - New		K17-3103		N/A
1235	OE	E	1653	Spill Containment Pallet	6/18/2007	\$529	1 - New		K17-3103		N/A
1236	OE	E	1652	Spill Containment Pallet	6/18/2007	\$529	1 - New		K17-3103		N/A
1237	OE	E	1651	Spill Containment Pallet	6/18/2007	\$529	1 - New		K17-3103		N/A
1238	FN	E	2455	Desk, L-shape	6/28/2007	\$808	1 - New	Global Tribut			N/A
1239	RAD	E	1664	Electronic Dosimeter Rack	6/12/2007	\$795	1 - New		DSR-60		270002
1240	ME	E	1667	Electrician Tool Kit	7/2/2007	\$808	1 - New				N/A
1241	ME	E	1668	Electrician Tool Kit	7/2/2007	\$808	1 - New				N/A
1242	ME	E	1669	Electrician Tool Kit	7/2/2007	\$808	1 - New				N/A
1243	ME	E	1665	Electrician Tool Kit	7/2/2007	\$808	1 - New				N/A
1244	ME	E	1666	Electrician Tool Kit	7/2/2007	\$808	1 - New				N/A
1245	ME	E	1670	Electrician Tool Kit	7/2/2007	\$808	1 - New				N/A
1246	ME	E	1672	Mechanic's Tool Kit	7/2/2007	\$1,445	1 - New				N/A
1247	ME	E	1673	Mechanic's Tool Kit	7/2/2007	\$1,445	1 - New				N/A
1248	ME	E	1674	Mechanic's Tool Kit	7/2/2007	\$1,445	1 - New				N/A
1249	ME	E	1671	Mechanic's Tool Kit	7/2/2007	\$1,445	1 - New				N/A
1250	CONT	E	1677	20' sea land container	6/19/2007	\$1,700	4 - Usable				KSCF-101650
1251	CONT	E	1676	20' sea land container	6/19/2007	\$1,700	1 - New				KSCF-100506
1252	FN	E	1679	Electronic Whiteboard	7/24/2007	\$2,095	1 - New		M-11W Series		
1253	FN	E	1678	Electronic Whiteboard	7/24/2007	\$2,095	1 - New		M-11W Series		
1254	MET	E	1680	Fluke 700P31	7/9/2007	\$1,618	1 - New		700P31		94603113
1255	IT	E	1681	Polycom Soundstation 2	7/31/2007	\$520	1 - New		2200-16200-00		
1256	ME	E	1763	Confined Space Breathing Kit	7/26/2007	\$2,167	1 - New		54-01-30102 NC		30874
1257	ME	E	1762	Belt Hog Pulley Alignment Tool	6/7/2007	\$1,650	1 - New		TDBeltHog1-0694		60756
1258	RH	E	1760	RH 72-B Canister	7/26/2007	\$24,637	1 - New				70033
1259	RH	E	1761	RH 72-B Canister	7/26/2007	\$24,637	1 - New				70034
1260	IT	E	1759	Polycom Soundstation 2	8/6/2007	\$520	1 - New	Polycom	2200-16200-001		H80703021F59
1261	IT	E,S	1552	Computer, Desktop			1 - New	Dell	Optiplex 745		HDH47D1

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1262	IT	E,S	1553	Computer, Desktop			1 - New	Dell	Optiplex 745	7FH47D1
1263	IT	E,S	1554	Computer, Desktop			1 - New	Dell	Optiplex 745	FCH47D1
1264	IT	S	1555	Monitor, Flat Panel			1 - New	Dell	1907FP	N/A
1265	IT	S	1556	Monitor, Flat Panel			1 - New	Dell	1907FP	N/A
1266	IT	S	1557	Monitor, Flat Panel			1 - New	Dell	1907FP	N/A
1267	IT	S	1558	Monitor, Flat Panel			1 - New	Dell	1907FP	N/A
1268	IT	S	1533	Monitor, Flat Panel			1 - New	Dell	1907FP	N/A
1269	IT	S	1534	Monitor, Flat Panel			1 - New	Dell	1907FP	N/A
1270	IT	S	1535	Monitor, Flat Panel			1 - New	Dell	1907FP	N/A
1271	IT	S	1536	Monitor, Flat Panel			1 - New	Dell	1907FP	N/A
1272	IT	S	1537	Monitor, Flat Panel			1 - New	Dell	1907FP	N/A
1273	IT	S	1538	Monitor, Flat Panel			1 - New	Dell	1907FP	N/A
1274	IT	S	1539	Monitor, Flat Panel			1 - New	Dell	1907FP	N/A
1275	IT	S	1540	Monitor, Flat Panel			1 - New	Dell	1907FP	N/A
1276	IT	S	1541	Monitor, Flat Panel			1 - New	Dell	1907FP	N/A
1277	IT	S	1542	Monitor, Flat Panel			1 - New	Dell	1907FP	N/A
1278	IT	S	1543	Monitor, Flat Panel			1 - New	Dell	1907FP	N/A
1279	IT	E,S		Computer, Desktop			1 - New	Dell	Optiplex 745	6CH47D1
1280	IT	S	1796	Monitor, Flat Panel			1 - New	Dell	1907FP	N/A
1281	OE	E	1682	Spill Containment Pallet	8/2/2007	\$529	1 - New		4-drum	N/A
1282	OE	E	1683	Spill Containment Pallet	8/2/2007	\$529	1 - New		4-drum	N/A
1283	OE	E	1684	Spill Containment Pallet	8/2/2007	\$529	1 - New		4-drum	N/A
1284	OE	E	1685	Spill Containment Pallet	8/2/2007	\$529	1 - New		4-drum	N/A
1285	OE	E	1686	Spill Containment Pallet	8/2/2007	\$529	1 - New		4-drum	N/A
1286	OE	E	1687	Spill Containment Pallet	8/2/2007	\$529	1 - New		4-drum	N/A
1287	OE	E	1688	Spill Containment Pallet	8/2/2007	\$529	1 - New		4-drum	N/A
1288	OE	E	2471	Spill Containment Pallet	8/2/2007	\$529	1 - New		4-drum	N/A
1289	OE	E	2472	Spill Containment Pallet	8/2/2007	\$529	1 - New		4-drum	N/A
1290	OE	E	2473	Spill Containment Pallet	8/2/2007	\$529	1 - New		4-drum	N/A
1291	OE	E	2474	Spill Containment Pallet	8/2/2007	\$529	1 - New		4-drum	N/A
1292	OE	E	2475	Spill Containment Pallet	8/2/2007	\$529	1 - New		4-drum	N/A
1293	ME	E	2470	Heavy Duty Bench Grinder	8/22/2007	\$638	1 - New		8107W	X0703207039
1294	IT	E,S	2469	In-Focus SGA Projector	8/22/2007	\$1,400	1 - New	In-Focus	IN36	AVCV71600591
1295	ME	E	2476	Magnetic-Base Drill	8/23/2007	\$995	1 - New	Hougen	RotaBroach	3107105
1296	IT	E,S	1794	Computer, Desktop			1 - New	Dell	Optiplex 745	2CH47D1
1297	IT	E,S	1795	Computer, Desktop			1 - New	Dell	Optiplex 745	8CH47D2
1298	IT	E,S	1797	Computer, Desktop			1 - New	Dell	Optiplex 745	CCH47D1
1299	IT	S	1798	Monitor, Flat Panel			1 - New	Dell	1908FP	N/A
1300	IT	S	1799	Monitor, Flat Panel			1 - New	Dell	1908FP	N/A
1301	IT	S	1802	Monitor, Flat Panel			1 - New	Dell	1908FP	N/A
1302	IT	E,S	1800	Computer, Desktop			1 - New	Dell	Latitude D820	4VMF2D1
1303	IT	E,S	1801	Computer, Desktop			1 - New	Dell	Latitude D820	GRMF2D1
1304	ME	E	1764	Retractable Lifeline	8/13/2007	\$719	1 - New		RLS30BG	N/A
1305	OE	E	1765	Hydraulic Raise-n-Roll Dolly	8/6/2007	\$695	1 - New		RNR-6	177483
1306	OE	E	1766	Hydraulic Raise-n-Roll Dolly	8/6/2007	\$695	1 - New		RNR-6	177483

(Attachment 1)

**SECTION J – LIST OF DOCUMENTS, EXHIBITS
AND OTHER ATTACHMENTS**

ATTACHMENT C

BASELINE LIST OF REQUIRED COMPLIANCE DOCUMENTS

(See attached)

This Requirements Change Notice incorporates into Section J, Attachment C, Contract No. DE-EM0000323, the attached list of applicable documents, which have been assessed against the terms and conditions of the subject contract in accordance with Clause I-115 Laws, Regulations, and DOE Directives. This is a complete list of administrative and environment, safety, and health requirements.

BASELINE LIST OF REQUIRED COMPLIANCE DOCUMENTS

List B

Requirement	Description	Compliance Status & Notes
DOE M 140.1-B	Interface with the Defense Nuclear Facilities Safety Board	
DOE O 142.3A	Unclassified Foreign Visits and Assignments Program	
DOE O 151.1C	Comprehensive Emergency Management System	
DOE O 205.1A	Department of Energy Cyber Security Management	Revised Implementation Plan approved 08/28/2010
DOE M 205.1-5, Administrative Change 2	Cyber Security Process Requirements Manual	Revised Implementation Plan approved 08/28/2010
DOE M 205.1-6, Administrative Change 2	Media Sanitization Manual	Revised Implementation Plan approved 08/28/2010
DOE M 205.1-7, Administrative Change 2	Security Controls for Unclassified Information Systems Manual	Revised Implementation Plan approved 08/28/2010
DOE M 205.1-8, Administrative Change 2	Cyber Security Incident Management Manual	Revised Implementation Plan approved 08/28/2010
DOE O 206.1	Department of Energy Privacy Program	
DOE N 206.4	Personal Identity Verification	
DOE O 210.2	DOE Corporate Operating Experience Program	
DOE O 221.1A	Reporting Fraud, Waste, and Abuse To the Office of Inspector General	
DOE O 221.2A, Attachment 1	Cooperation with the Office of Inspector General	
DOE O 225.1B	Accident Investigations	
DOE P 226.1A	Department of Energy Oversight Policy	
DOE O 226.1A	Implementation of Department of Energy Oversight Policy	

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BASELINE LIST OF REQUIRED COMPLIANCE DOCUMENTS

List B

Requirement	Description	Compliance Status & Notes
DOE M 231.1-1A, Change 2	Environment, Safety, and Health Reporting Manual	
DOE M 231.1-2	Occurrence Reporting and Processing of Operation Information	
DOE N 234.1	Reporting of Radioactive Sealed Sources	
DOE O 243.1	Records Management Program	
DOE O 243.2	Vital Records	
DOE N 251.86	Extension of DOE N 234.1, Reporting of Radioactive Sealed Sources	
DOE O 252.1A	Technical Standards Program	
DOE O 350.1, Change 3, Attachment 1 for Chapters I-IX	Contractor Human Resource Management Programs	Revised Implementation Plan approved 06/03/2010
DOE O 413.1B	Internal Control Program	
DOE O 413.3B	Program and Project Management for Acquisition of Capital Assets	Revised Implementation Plan to be submitted on 06/15/2011
DOE O 414.1C	Quality Assurance	
DOE O 420.1B, Change 1 Attachment 2	Facility Safety	
DOE P 420.1	Department of Energy Nuclear Safety Policy	
DOE O 422.1	Conduct of Operations	Implementation Plan approved 12/07/2010
DOE O 425.1D	Verification of Readiness to Start Up or Restart Nuclear Facilities	Implementation Plan approved 12/01/2010
DOE O 426.2	Personnel Selection, Training Qualification, and Certification Requirements for DOE Nuclear Facilities	Revised Implementation Plan approved 01/28/2011
DOE O 430.1B, Change 1	Real Property Asset Management	
DOE O 433.1B	Maintenance Management Program for DOE Nuclear Facilities	

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BASELINE LIST OF REQUIRED COMPLIANCE DOCUMENTS

List B

Requirement	Description	Compliance Status & Notes
DOE O 435.1, Change 1	Radioactive Waste Management.	
DOE M 435.1-1, Change 1	Radioactive Waste Management Manual	
DOE O 442.1A	Department of Energy Employee Concerns Program	
DOE M 442.1-1	Differing Professional Opinions Manual for Technical Issues Involving Environment, Safety and Health	
DOE P 442.1	Differing Professional Opinions on Technical Issues Related to Environment, Safety and Health	
DOE P 450.4	Safety Management System Policy	
DOE M 450.4-1	Integrated Safety Management System Manual	
DOE O 450.1, Administrative Change 1	Environmental Protection Program	
DOE O 450.1A	Environmental Protection Program	
DOE O 451.1B, Change 1	National Environmental Policy Act Compliance Program	
DOE O 458.1, Administrative Change 1	Radiation Protection of the Public and the Environment	Implementation Plan to be submitted by 08/29/2011
DOE O 460.1C	Packaging and Transportation Safety	
DOE O 460.2A	Departmental Materials Transportation and Packaging Management	
DOE M 460.2-1A	Radioactive Material Transportation Practices Manual	
DOE P 470.1A	Safeguards and Security Program	
DOE O 470.2B	Independent Oversight and Performance Assurance Program	
DOE M 470.4-1, Change 1	Safeguards and Security Program Planning and Management	Implementation Plan approved 11/07/2008
DOE M 470.4-1, Change 2	Safeguards and Security Program Planning and Management	

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BASELINE LIST OF REQUIRED COMPLIANCE DOCUMENTS

List B

Requirement	Description	Compliance Status & Notes
DOE M 470.4-2A	Physical Protection	
DOE M 470.4-5	Personnel Security	
DOE M 470.4-6	Nuclear Material Control Accountability	
DOE O 471.3, Administrative Change 1	Identifying and Protecting Official Use Only Information	
DOE M 471.3-1, Administrative Change 1	Manual for Identifying and Protecting Official Use Only Information	
DOE O 534.1B	Accounting	
DOE O 551.1C	Official Foreign Travel	
DOE O 580.1, Change 1	DOE Personal Property Management Program	
DOE O 5400.5, Change 2	Radiation Protection of the Public and the Environment	(Except for Chapter III and Figure IV-1)
DOE-STD-1090-2007	Hoisting and Rigging	
DOE-STD-1186-2004	Specific Administrative Controls	
DOE-STD-1189-2008	Integration of Safety into the Design Process for Environmental Management Activities	Revised Implementation Plan approved 11/17/2010
ANSI/SIA A92.2	Vehicle-Mounted Elevating and Rotating Aerial Devices	
ANSI B30.5	Mobile and Locomotive Cranes	
ANSI B30.9	Slings	
ANSI B30.11	Monorails & Under-hung cranes	
ANSI B30.16	Overhead Hoists	
ANSI B30.20	Below the Hook Lifting Devices	
ANSI B30.21	Manually Operated Hoists	
ANSI Z358.1	Standard for Emergency Eyewash and Shower Equipment	
	International Building Code 2003	

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BASELINE LIST OF REQUIRED COMPLIANCE DOCUMENTS

List B

Requirement	Description	Compliance Status & Notes
NFPA 1	Fire Code	
NFPA 13	Standard on the Installation of Sprinkler Systems	
NFPA 30	Flammable and Combustible Liquids Code	
NFPA 45	Standard on Fire Protection for Laboratories using Chemicals	
NFPA 70E, 2009 Edition	Standard for Electrical Safety in the Workplace	
NFPA 72	National Fire Alarm and Signaling Code	
NFPA 101	Life Safety Code	
10 CFR 1926, Subpart CC	Cranes and Derricks in Construction	

neb

STATEMENT OF COSTS

SUPPORTING REPORT OF COST AND FEE

See attached example format for the preparation of the Supporting Report of Cost and Fee. This format may be modified to include further cost details as required by DOE.

Final required format including further breakdown of costs will be established.

- (1) The Contractor, making due allowances for the Contractor's cost accounting and project management systems, shall complete the Supporting Report(s) of Cost and Fee.
- (2) The Contractor shall complete the Report(s) of Cost and Fee for each assignment supporting the total invoiced cost.
- (3) Costs claimed must be only those recorded costs authorized for billing by the provisions of the contract and supported by the Contractor's cost accounting system.
- (4) A separate line item should be identified for claimed overtime cost by each assignment.
- (5) The funds expended for the current billing period as well as for the cumulative contract period will be shown.
- (6) The certification statement, signed by a responsible official of the Contractor, will be placed at the bottom of the report(s) of cost and fee and appear as follows:

CERTIFICATION: I certify that this invoice is correct, was prepared in accordance with the terms of the contract and is supported by the Contractor's cost accounting system. The costs included herein have been incurred; represent payments made by the contractor except as otherwise authorized in the payments provisions of the contract; and properly reflect the level of effort required by DOE.

Signature _____ Title _____

Name of Preparer _____ Telephone Number _____

Company _____ Address _____

- (7) Additional supporting data for claimed costs shall be provided in such form and reasonable detail as an authorized representative of the Contracting Officer may require.

**EXAMPLE
VOUCHER/INVOICE SUPPORTING REPORT OF COST AND FEE
FOR THE PERIOD MM/DD/YY THROUGH MM/DD/YY**

Firm Name: _____
Firm Street Address: _____ B&R #: _____ Contract No.: _____
Firm City, State, Zip Code: _____ Cost Center #:: _____ Voucher No.: _____
Taxpayer Identification # (TIN): _____ ADS #: _____ Through Modification: _____

COST ELEMENT	APPLIED RATE	CLAIMED AOUNT THIS BILL	CUMULATIVE COST/FEE TO DATE
Labor			
Fringe Benefits	0.00%		
Labor Overhead	0.00%		
Subcontracts			
Materials			
Material Overhead	0.00%		
Equipment			
Other Direct Costs (ODC)			
G&A Expenses	0.00%		
Total Cost		\$0.00	\$0.00
Fee		\$0.00	\$0.00
Total Invoice		\$0.00	\$0.00

AMOUNT AUTHORIZED FOR EXPENDUITURE (OBLIGATION):

Basic Contract	\$0.00
All Modifications	\$0.00
Contract To Date	\$0.00

CERTIFICATION: I certify that this invoice is correct, was prepared in accordance with the terms of the contract and is supported by the Contractor's cost accounting system. The costs included herein have been incurred; represent payments made by the contractor except as otherwise authorized in the payments provisions of the contract; and properly the level of effort required by DOE.

Signature	Title
Name of Preparer	Telephone Number
Company	Address

U.S. DEPARTMENT OF LABOR WAGE DETERMINATION

WD 05-2493 (Rev.-9) was first posted on www.wdol.gov on 12/02/2008

REGISTER OF WAGE DETERMINATIONS UNDER
THE SERVICE CONTRACT ACT
By direction of the Secretary of Labor

U.S. DEPARTMENT OF LABOR
EMPLOYMENT STANDARDS ADMINISTRATION
WAGE AND HOUR DIVISION
WASHINGTON D.C. 20210

Shirley F. Ebbesen Division of
Director Wage Determinations

Wage Determination No.: 2005-2493
Revision No.: 9
Date Of Revision: 11/21/2008

State: Tennessee

Area: Tennessee Counties of Anderson, Blount, Campbell, Claiborne, Cumberland, Fentress, Grainger, Hamblen, Jefferson, Knox, Loudon, Monroe, Morgan, Pickett, Roane, Scott, Sevier, Union

****Fringe Benefits Required Follow the Occupational Listing****

OCCUPATION CODE - TITLE	MINIMUM WAGE RATE
01000 - Administrative Support And Clerical Occupations	
01011 - Accounting Clerk I	12.00
01012 - Accounting Clerk II	13.35
01013 - Accounting Clerk III	14.93
01020 - Administrative Assistant	18.28
01040 - Court Reporter	14.96
01051 - Data Entry Operator I	10.83
01052 - Data Entry Operator II	13.19
01060 - Dispatcher, Motor Vehicle	16.25
01070 - Document Preparation Clerk	12.37
01090 - Duplicating Machine Operator	12.37
01111 - General Clerk I	9.96
01112 - General Clerk II	11.85
01113 - General Clerk III	13.29
01120 - Housing Referral Assistant	16.57
01141 - Messenger Courier	10.49
01191 - Order Clerk I	10.73
01192 - Order Clerk II	13.65
01261 - Personnel Assistant (Employment) I	12.58
01262 - Personnel Assistant (Employment) II	14.92
01263 - Personnel Assistant (Employment) III	16.64
01270 - Production Control Clerk	16.30
01280 - Receptionist	11.72
01290 - Rental Clerk	13.05
01300 - Scheduler, Maintenance	13.48
01311 - Secretary I	13.48
01312 - Secretary II	14.96
01313 - Secretary III	16.57
01320 - Service Order Dispatcher	16.06
01410 - Supply Technician	18.28
01420 - Survey Worker	16.50
01531 - Travel Clerk I	11.78
01532 - Travel Clerk II	12.56
01533 - Travel Clerk III	13.50
01611 - Word Processor I	12.27

01612 - Word Processor II	13.62
01613 - Word Processor III	15.39
05000 - Automotive Service Occupations	
05005 - Automobile Body Repairer, Fiberglass	18.68
05010 - Automotive Electrician	16.03
05040 - Automotive Glass Installer	15.26
05070 - Automotive Worker	15.26
05110 - Mobile Equipment Servicer	13.68
05130 - Motor Equipment Metal Mechanic	16.78
05160 - Motor Equipment Metal Worker	15.26
05190 - Motor Vehicle Mechanic	16.55
05220 - Motor Vehicle Mechanic Helper	13.06
05250 - Motor Vehicle Upholstery Worker	14.47
05280 - Motor Vehicle Wrecker	15.26
05310 - Painter, Automotive	18.18
05340 - Radiator Repair Specialist	15.26
05370 - Tire Repairer	11.03
05400 - Transmission Repair Specialist	16.55
07000 - Food Preparation And Service Occupations	
07010 - Baker	10.96
07041 - Cook I	9.91
07042 - Cook II	11.05
07070 - Dishwasher	8.36
07130 - Food Service Worker	9.18
07210 - Meat Cutter	12.42
07260 - Waiter/Waitress	7.79
09000 - Furniture Maintenance And Repair Occupations	
09010 - Electrostatic Spray Painter	15.48
09040 - Furniture Handler	10.90
09080 - Furniture Refinisher	15.48
09090 - Furniture Refinisher Helper	12.42
09110 - Furniture Repairer, Minor	13.93
09130 - Upholsterer	15.48
11000 - General Services And Support Occupations	
11030 - Cleaner, Vehicles	8.43
11060 - Elevator Operator	9.54
11090 - Gardener	13.05
11122 - Housekeeping Aide	9.54
11150 - Janitor	10.48
11210 - Laborer, Grounds Maintenance	10.75
11240 - Maid or Houseman	8.32
11260 - Pruner	10.69
11270 - Tractor Operator	13.81
11330 - Trail Maintenance Worker	10.75
11360 - Window Cleaner	10.94
12000 - Health Occupations	
12010 - Ambulance Driver	14.54
12011 - Breath Alcohol Technician	14.98
12012 - Certified Occupational Therapist Assistant	20.28
12015 - Certified Physical Therapist Assistant	19.04
12020 - Dental Assistant	13.78
12025 - Dental Hygienist	27.65
12030 - EKG Technician	16.42
12035 - Electroneurodiagnostic Technologist	16.42
12040 - Emergency Medical Technician	14.54
12071 - Licensed Practical Nurse I	13.37
12072 - Licensed Practical Nurse II	14.98
12073 - Licensed Practical Nurse III	16.78
12100 - Medical Assistant	12.04
12130 - Medical Laboratory Technician	13.20

12160 - Medical Record Clerk	10.65
12190 - Medical Record Technician	13.54
12195 - Medical Transcriptionist	13.34
12210 - Nuclear Medicine Technologist	20.70
12221 - Nursing Assistant I	8.67
12222 - Nursing Assistant II	9.63
12223 - Nursing Assistant III	10.61
12224 - Nursing Assistant IV	11.92
12235 - Optical Dispenser	14.65
12236 - Optical Technician	13.21
12250 - Pharmacy Technician	16.23
12280 - Phlebotomist	11.92
12305 - Radiologic Technologist	20.22
12311 - Registered Nurse I	19.16
12312 - Registered Nurse II	23.46
12313 - Registered Nurse II, Specialist	23.46
12314 - Registered Nurse III	26.04
12315 - Registered Nurse III, Anesthetist	26.04
12316 - Registered Nurse IV	30.91
12317 - Scheduler (Drug and Alcohol Testing)	18.51
13000 - Information And Arts Occupations	
13011 - Exhibits Specialist I	17.10
13012 - Exhibits Specialist II	21.18
13013 - Exhibits Specialist III	25.90
13041 - Illustrator I	16.64
13042 - Illustrator II	21.18
13043 - Illustrator III	25.90
13047 - Librarian	23.03
13050 - Library Aide/Clerk	11.41
13054 - Library Information Technology Systems Administrator	20.21
13058 - Library Technician	13.05
13061 - Media Specialist I	11.67
13062 - Media Specialist II	13.05
13063 - Media Specialist III	14.55
13071 - Photographer I	13.13
13072 - Photographer II	15.73
13073 - Photographer III	19.86
13074 - Photographer IV	25.55
13075 - Photographer V	30.07
13110 - Video Teleconference Technician	13.87
14000 - Information Technology Occupations	
14041 - Computer Operator I	14.94
14042 - Computer Operator II	16.70
14043 - Computer Operator III	18.79
14044 - Computer Operator IV	21.00
14045 - Computer Operator V	23.12
14071 - Computer Programmer I (1)	20.49
14072 - Computer Programmer II (1)	25.40
14073 - Computer Programmer III (1)	27.62
14074 - Computer Programmer IV (1)	27.62
14101 - Computer Systems Analyst I (1)	27.15
14102 - Computer Systems Analyst II (1)	27.62
14103 - Computer Systems Analyst III (1)	27.62
14150 - Peripheral Equipment Operator	14.86
14160 - Personal Computer Support Technician	21.00
15000 - Instructional Occupations	
15010 - Aircrew Training Devices Instructor (Non-Rated)	25.93
15020 - Aircrew Training Devices Instructor (Rated)	31.39
15030 - Air Crew Training Devices Instructor (Pilot)	34.52
15050 - Computer Based Training Specialist / Instructor	27.15

15060 - Educational Technologist	24.90
15070 - Flight Instructor (Pilot)	34.52
15080 - Graphic Artist	17.05
15090 - Technical Instructor	19.44
15095 - Technical Instructor/Course Developer	23.78
15110 - Test Proctor	15.69
15120 - Tutor	15.69
16000 - Laundry, Dry-Cleaning, Pressing And Related Occupations	
16010 - Assembler	8.48
16030 - Counter Attendant	8.48
16040 - Dry Cleaner	10.95
16070 - Finisher, Flatwork, Machine	8.48
16090 - Presser, Hand	8.48
16110 - Presser, Machine, Drycleaning	8.48
16130 - Presser, Machine, Shirts	8.48
16160 - Presser, Machine, Wearing Apparel, Laundry	8.48
16190 - Sewing Machine Operator	11.71
16220 - Tailor	12.47
16250 - Washer, Machine	9.38
19000 - Machine Tool Operation And Repair Occupations	
19010 - Machine-Tool Operator (Tool Room)	18.19
19040 - Tool And Die Maker	21.73
21000 - Materials Handling And Packing Occupations	
21020 - Forklift Operator	12.69
21030 - Material Coordinator	16.30
21040 - Material Expediter	16.30
21050 - Material Handling Laborer	11.47
21071 - Order Filler	10.28
21080 - Production Line Worker (Food Processing)	12.69
21110 - Shipping Packer	12.47
21130 - Shipping/Receiving Clerk	12.47
21140 - Store Worker I	10.91
21150 - Stock Clerk	14.75
21210 - Tools And Parts Attendant	12.69
21410 - Warehouse Specialist	12.69
23000 - Mechanics And Maintenance And Repair Occupations	
23010 - Aerospace Structural Welder	21.76
23021 - Aircraft Mechanic I	20.73
23022 - Aircraft Mechanic II	21.76
23023 - Aircraft Mechanic III	22.84
23040 - Aircraft Mechanic Helper	15.54
23050 - Aircraft, Painter	19.79
23060 - Aircraft Servicer	17.43
23080 - Aircraft Worker	18.43
23110 - Appliance Mechanic	17.46
23120 - Bicycle Repairer	12.77
23125 - Cable Splicer	21.06
23130 - Carpenter, Maintenance	15.48
23140 - Carpet Layer	16.60
23160 - Electrician, Maintenance	20.79
23181 - Electronics Technician Maintenance I	19.33
23182 - Electronics Technician Maintenance II	20.32
23183 - Electronics Technician Maintenance III	21.27
23260 - Fabric Worker	15.62
23290 - Fire Alarm System Mechanic	17.63
23310 - Fire Extinguisher Repairer	14.75
23311 - Fuel Distribution System Mechanic	21.26
23312 - Fuel Distribution System Operator	17.14
23370 - General Maintenance Worker	15.31
23380 - Ground Support Equipment Mechanic	20.73

23381 - Ground Support Equipment Servicer	17.43
23382 - Ground Support Equipment Worker	18.43
23391 - Gunsmith I	14.75
23392 - Gunsmith II	16.60
23393 - Gunsmith III	18.29
23410 - Heating, Ventilation And Air-Conditioning Mechanic	16.22
23411 - Heating, Ventilation And Air Contditiioning Mechanic (Research Facility)	16.97
23430 - Heavy Equipment Mechanic	16.35
23440 - Heavy Equipment Operator	14.97
23460 - Instrument Mechanic	22.57
23465 - Laboratory/Shelter Mechanic	17.46
23470 - Laborer	12.10
23510 - Locksmith	17.03
23530 - Machinery Maintenance Mechanic	19.19
23550 - Machinist, Maintenance	19.55
23580 - Maintenance Trades Helper	12.42
23591 - Metrology Technician I	22.57
23592 - Metrology Technician II	23.62
23593 - Metrology Technician III	24.64
23640 - Millwright	18.14
23710 - Office Appliance Repairer	17.03
23760 - Painter, Maintenance	17.03
23790 - Pipefitter, Maintenance	18.64
23810 - Plumber, Maintenance	17.78
23820 - Pneudraulic Systems Mechanic	18.29
23850 - Rigger	18.29
23870 - Scale Mechanic	16.60
23890 - Sheet-Metal Worker, Maintenance	17.52
23910 - Small Engine Mechanic	16.18
23931 - Telecommunications Mechanic I	21.41
23932 - Telecommunications Mechanic II	22.38
23950 - Telephone Lineman	18.19
23960 - Welder, Combination, Maintenance	17.74
23965 - Well Driller	16.22
23970 - Woodcraft Worker	18.29
23980 - Woodworker	14.31
24000 - Personal Needs Occupations	
24570 - Child Care Attendant	8.74
24580 - Child Care Center Clerk	10.88
24610 - Chore Aide	9.45
24620 - Family Readiness And Support Services Coordinator	11.27
24630 - Homemaker	13.52
25000 - Plant And System Operations Occupations	
25010 - Boiler Tender	23.32
25040 - Sewage Plant Operator	17.77
25070 - Stationary Engineer	23.32
25190 - Ventilation Equipment Tender	16.78
25210 - Water Treatment Plant Operator	19.10
27000 - Protective Service Occupations	
27004 - Alarm Monitor	12.36
27007 - Baggage Inspector	9.14
27008 - Corrections Officer	14.96
27010 - Court Security Officer	15.81
27030 - Detection Dog Handler	11.51
27040 - Detention Officer	14.96
27070 - Firefighter	14.62
27101 - Guard I	9.14
27102 - Guard II	11.51
27131 - Police Officer I	17.01

27132 - Police Officer II	18.55
28000 - Recreation Occupations	
28041 - Carnival Equipment Operator	10.86
28042 - Carnival Equipment Repairer	11.58
28043 - Carnival Equipment Worker	8.63
28210 - Gate Attendant/Gate Tender	12.73
28310 - Lifeguard	10.82
28350 - Park Attendant (Aide)	14.24
28510 - Recreation Aide/Health Facility Attendant	10.09
28515 - Recreation Specialist	13.70
28630 - Sports Official	11.34
28690 - Swimming Pool Operator	16.20
29000 - Stevedoring/Longshoremen Occupational Services	
29010 - Blocker And Bracer	15.01
29020 - Hatch Tender	15.01
29030 - Line Handler	15.01
29041 - Stevedore I	14.37
29042 - Stevedore II	15.93
30000 - Technical Occupations	
30010 - Air Traffic Control Specialist, Center (HFO) (2)	33.96
30011 - Air Traffic Control Specialist, Station (HFO) (2)	23.42
30012 - Air Traffic Control Specialist, Terminal (HFO) (2)	25.79
30021 - Archeological Technician I	15.60
30022 - Archeological Technician II	17.39
30023 - Archeological Technician III	21.62
30030 - Cartographic Technician	23.50
30040 - Civil Engineering Technician	20.21
30061 - Drafter/CAD Operator I	14.24
30062 - Drafter/CAD Operator II	15.98
30063 - Drafter/CAD Operator III	21.02
30064 - Drafter/CAD Operator IV	26.04
30081 - Engineering Technician I	15.84
30082 - Engineering Technician II	17.79
30083 - Engineering Technician III	20.11
30084 - Engineering Technician IV	24.92
30085 - Engineering Technician V	30.15
30086 - Engineering Technician VI	36.50
30090 - Environmental Technician	23.98
30210 - Laboratory Technician	17.40
30240 - Mathematical Technician	19.60
30361 - Paralegal/Legal Assistant I	16.72
30362 - Paralegal/Legal Assistant II	18.60
30363 - Paralegal/Legal Assistant III	22.70
30364 - Paralegal/Legal Assistant IV	27.52
30390 - Photo-Optics Technician	20.74
30461 - Technical Writer I	17.98
30462 - Technical Writer II	21.99
30463 - Technical Writer III	26.61
30491 - Unexploded Ordnance (UXO) Technician I	21.58
30492 - Unexploded Ordnance (UXO) Technician II	26.11
30493 - Unexploded Ordnance (UXO) Technician III	31.30
30494 - Unexploded (UXO) Safety Escort	21.58
30495 - Unexploded (UXO) Sweep Personnel	21.58
30620 - Weather Observer, Combined Upper Air Or Surface Programs (2)	18.04
30621 - Weather Observer, Senior (2)	20.04
31000 - Transportation/Mobile Equipment Operation Occupations	
31020 - Bus Aide	8.84
31030 - Bus Driver	12.73
31043 - Driver Courier	13.32
31260 - Parking and Lot Attendant	8.51

31290 - Shuttle Bus Driver	14.21
31310 - Taxi Driver	11.14
31361 - Truckdriver, Light	14.21
31362 - Truckdriver, Medium	15.01
31363 - Truckdriver, Heavy	16.24
31364 - Truckdriver, Tractor-Trailer	16.24
99000 - Miscellaneous Occupations	
99030 - Cashier	9.39
99050 - Desk Clerk	10.96
99095 - Embalmer	24.84
99251 - Laboratory Animal Caretaker I	11.14
99252 - Laboratory Animal Caretaker II	13.06
99310 - Mortician	25.37
99410 - Pest Controller	14.48
99510 - Photofinishing Worker	11.04
99710 - Recycling Laborer	14.64
99711 - Recycling Specialist	17.31
99730 - Refuse Collector	13.25
99810 - Sales Clerk	10.77
99820 - School Crossing Guard	10.79
99830 - Survey Party Chief	16.66
99831 - Surveying Aide	11.04
99832 - Surveying Technician	15.15
99840 - Vending Machine Attendant	12.29
99841 - Vending Machine Repairer	14.59
99842 - Vending Machine Repairer Helper	12.29

ALL OCCUPATIONS LISTED ABOVE RECEIVE THE FOLLOWING BENEFITS:

HEALTH & WELFARE: \$3.24 per hour or \$129.60 per week or \$561.60 per month

VACATION: 2 weeks paid vacation after 1 year of service with a contractor or successor; 3 weeks after 5 years, and 4 weeks after 15 years. Length of service includes the whole span of continuous service with the present contractor or successor, wherever employed, and with the predecessor contractors in the performance of similar work at the same Federal facility. (Reg. 29 CFR 4.173)

HOLIDAYS: A minimum of ten paid holidays per year, New Year's Day, Martin Luther King Jr's Birthday, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day, and Christmas Day. (A contractor may substitute for any of the named holidays another day off with pay in accordance with a plan communicated to the employees involved.) (See 29 CFR 4174)

THE OCCUPATIONS WHICH HAVE PARENTHESES AFTER THEM RECEIVE THE FOLLOWING BENEFITS (as numbered):

1) COMPUTER EMPLOYEES: Under the SCA at section 8(b), this wage determination does not apply to any employee who individually qualifies as a bona fide executive, administrative, or professional employee as defined in 29 C.F.R. Part 541. Because most Computer System Analysts and Computer Programmers who are compensated at a rate not less than \$27.63 (or on a salary or fee basis at a rate not less than \$455 per week) an hour would likely qualify as exempt computer professionals, (29 C.F.R. 541.400) wage rates may not be listed on this wage determination for all occupations within those job families. In addition, because this wage determination may not

list a wage rate for some or all occupations within those job families if the survey data indicates that the prevailing wage rate for the occupation equals or exceeds \$27.63 per hour. Conformance may be necessary for certain nonexempt employees. For example, if an individual employee is nonexempt but nevertheless performs duties within the scope of one of the Computer Systems Analyst or Computer Programmer occupations for which this wage determination does not specify an SCA wage rate, then the wage rate for that employee must be conformed in accordance with the conformance procedures described in the conformance note included on this wage determination.

Additionally, because job titles vary widely and change quickly in the computer industry, job titles are not determinative of the application of the computer professional exemption. Therefore, the exemption applies only to computer employees who satisfy the compensation requirements and whose primary duty consists of:

(1) The application of systems analysis techniques and procedures, including consulting with users, to determine hardware, software or system functional specifications;

(2) The design, development, documentation, analysis, creation, testing or modification of computer systems or programs, including prototypes, based on and related to user or system design specifications;

(3) The design, documentation, testing, creation or modification of computer programs related to machine operating systems; or

(4) A combination of the aforementioned duties, the performance of which requires the same level of skills. (29 C.F.R. 541.400).

2) AIR TRAFFIC CONTROLLERS AND WEATHER OBSERVERS - NIGHT PAY & SUNDAY PAY: If you work at night as part of a regular tour of duty, you will earn a night differential and receive an additional 10% of basic pay for any hours worked between 6pm and 6am. If you are a full-time employed (40 hours a week) and Sunday is part of your regularly scheduled workweek, you are paid at your rate of basic pay plus a Sunday premium of 25% of your basic rate for each hour of Sunday work which is not overtime (i.e. occasional work on Sunday outside the normal tour of duty is considered overtime work).

HAZARDOUS PAY DIFFERENTIAL: An 8 percent differential is applicable to employees employed in a position that represents a high degree of hazard when working with or in close proximity to ordnance, explosives, and incendiary materials. This includes work such as screening, blending, drying, mixing, and pressing of sensitive ordnance, explosives, and pyrotechnic compositions such as lead azide, black powder and photoflash powder. All dry-house activities involving propellants or explosives. Demilitarization, modification, renovation, demolition, and maintenance operations on sensitive ordnance, explosives and incendiary materials. All operations involving regrading and cleaning of artillery ranges.

A 4 percent differential is applicable to employees employed in a position that represents a low degree of hazard when working with, or in close proximity to ordnance, (or employees possibly adjacent to) explosives and incendiary materials which involves potential injury such as laceration of hands, face, or arms of the employee engaged in the operation, irritation of the skin, minor burns and the like; minimal damage to immediate or adjacent work area or equipment being used. All operations involving, unloading, storage, and hauling of ordnance, explosive, and incendiary ordnance material other than small arms ammunition. These differentials are only applicable to work that has been specifically designated by the agency for ordnance, explosives, and incendiary material differential pay.

**** UNIFORM ALLOWANCE ****

If employees are required to wear uniforms in the performance of this contract (either by the terms of the Government contract, by the employer, by the state or

local law, etc.), the cost of furnishing such uniforms and maintaining (by laundering or dry cleaning) such uniforms is an expense that may not be borne by an employee where such cost reduces the hourly rate below that required by the wage determination. The Department of Labor will accept payment in accordance with the following standards as compliance:

The contractor or subcontractor is required to furnish all employees with an adequate number of uniforms without cost or to reimburse employees for the actual cost of the uniforms. In addition, where uniform cleaning and maintenance is made the responsibility of the employee, all contractors and subcontractors subject to this wage determination shall (in the absence of a bona fide collective bargaining agreement providing for a different amount, or the furnishing of contrary affirmative proof as to the actual cost), reimburse all employees for such cleaning and maintenance at a rate of \$3.35 per week (or \$.67 cents per day). However, in those instances where the uniforms furnished are made of "wash and wear" materials, may be routinely washed and dried with other personal garments, and do not require any special treatment such as dry cleaning, daily washing, or commercial laundering in order to meet the cleanliness or appearance standards set by the terms of the Government contract, by the contractor, by law, or by the nature of the work, there is no requirement that employees be reimbursed for uniform maintenance costs.

The duties of employees under job titles listed are those described in the "Service Contract Act Directory of Occupations", Fifth Edition, April 2006, unless otherwise indicated. Copies of the Directory are available on the Internet. A links to the Directory may be found on the WHD home page at <http://www.dol.gov/esa/whd/> or through the Wage Determinations On-Line (WDOL) Web site at <http://wdol.gov/>.

REQUEST FOR AUTHORIZATION OF ADDITIONAL CLASSIFICATION AND WAGE RATE {Standard Form 1444 (SF 1444)}

Conformance Process:

The contracting officer shall require that any class of service employee which is not listed herein and which is to be employed under the contract (i.e., the work to be performed is not performed by any classification listed in the wage determination), be classified by the contractor so as to provide a reasonable relationship (i.e., appropriate level of skill comparison) between such unlisted classifications and the classifications listed in the wage determination. Such conformed classes of employees shall be paid the monetary wages and furnished the fringe benefits as are determined. Such conforming process shall be initiated by the contractor prior to the performance of contract work by such unlisted class(es) of employees. The conformed classification, wage rate, and/or fringe benefits shall be retroactive to the commencement date of the contract. {See Section 4.6 (C) (vi)} When multiple wage determinations are included in a contract, a separate SF 1444 should be prepared for each wage determination to which a class(es) is to be conformed.

The process for preparing a conformance request is as follows:

1) When preparing the bid, the contractor identifies the need for a conformed (occupation) and computes a proposed rate).

2) After contract award, the contractor prepares a written report listing in order (proposed classification title), a Federal grade equivalency (FGE) for each (proposed classification), job description), and rationale for proposed wage rate), including information regarding the agreement or disagreement of the authorized representative of the employees involved, or where there is no authorized representative, the employees themselves. This report should be submitted to the contracting officer no later than 30 days after such unlisted class(es) of employees

performs any contract work.

3) The contracting officer reviews the proposed action and promptly submits a report of the action, together with the agency's recommendations and pertinent information including the position of the contractor and the employees, to the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, for review. (See section 4.6(b)(2) of Regulations 29 CFR Part 4).

4) Within 30 days of receipt, the Wage and Hour Division approves, modifies, or disapproves the action via transmittal to the agency contracting officer, or notifies the contracting officer that additional time will be required to process the request.

5) The contracting officer transmits the Wage and Hour decision to the contractor.

6) The contractor informs the affected employees.

Information required by the Regulations must be submitted on SF 1444 or bond paper.

When preparing a conformance request, the "Service Contract Act Directory of Occupations" (the Directory) should be used to compare job definitions to insure that duties requested are not performed by a classification already listed in the wage determination. Remember, it is not the job title, but the required tasks that determine whether a class is included in an established wage determination. Conformances may not be used to artificially split, combine, or subdivide classifications listed in the wage determination.

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U.S. Department of Energy Davis Bacon Wage Determination

General Decision Number: TN080012 05/01/2009 TN12

Superseded General Decision Number: TN20070019

State: Tennessee

Construction Type: Building

Counties: Anderson, Blount, Carter, Hamilton, Hawkins, Knox, Loudon, Sevier, Sullivan, Unicoi, Union and Washington Counties in Tennessee.

BUILDING CONSTRUCTION PROJECTS (does not include residential construction consisting of single family homes and apartments up to and including 4 stories)

Modification Number	Publication Date
0	02/08/2008
1	05/02/2008
2	06/20/2008
3	09/19/2008
4	04/24/2009
5	05/01/2009

CARP0654-001 05/01/2005

HAMILTON COUNTY

	Rates	Fringes
MILLWRIGHT.....	\$ 19.45	5.35

ELEC0175-003 06/01/2007

HAMILTON COUNTY

	Rates	Fringes
ELECTRICIAN.....	\$ 26.24	1.6%+5.54

ELEC0270-001 06/01/2008

OAK RIDGE RESERVATION/TOWNSITE

	Rates	Fringes
ELECTRICIAN.....	\$ 25.50	7.31

ELEC0760-002 06/04/2006

ANDERSON (EXCLUDING OAKRIDGE CITY), BLOUNT, KNOX, LOUDON, SEVIER AND UNION COUNTY

	Rates	Fringes
ELECTRICIAN.....	\$ 20.39	1.25%+7.71

ELEC0934-001 06/01/2006

CARTER, HAWKINS, SULLIVAN, UNICOI AND WASHINGTON COUNTIES

	Rates	Fringes
Electricians:		
Electrical contracts		
\$1,000,000 and over.....	\$ 18.15	3.90+19%
Electrical contracts less		
than \$1,000,000.....	\$ 15.77	3.90+13%

ENGI0917-009 05/01/2008

	Rates	Fringes
Power Equipment Operator		
Crane Operator and Dump		
Truck Operator.....	\$ 21.48	9.30
Forklift Operator.....	\$ 19.65	9.30
Hydraulic Crane Operator....	\$ 23.45	9.30

IRON0384-001 05/01/2008

EXCEPT HAMILTON COUNTY

	Rates	Fringes
IRONWORKER, STRUCTURAL.....	\$ 21.18	9.35

* IRON0704-003 05/01/2009

HAMILTON COUNTY

	Rates	Fringes
IRONWORKER, STRUCTURAL.....	\$ 21.57	10.54

ROOF0176-006 05/01/2007

	Rates	Fringes
ROOFER.....	\$ 20.00	5.57

SHEE0005-002 05/01/2007

	Rates	Fringes
Sheet metal worker (HVAC Duct		
work).....	\$ 23.27	3%+7.82

SUTN2003-012 09/10/2003

	Rates	Fringes
CARPENTER (Including Drywall		
Hanging, Batt Insulation and		
Form Work).....	\$ 13.03	
DRYWALL FINISHER/TAPER.....	\$ 12.00	

GLAZIER.....	\$ 10.00	
Laborer, Unskilled.....	\$ 7.80	
PAINTER (Brush and Roller) (Excluding Drywall Finishers)....	\$ 11.30	1.96
PLUMBER.....	\$ 12.00	
Power Equipment Operator Backhoe.....	\$ 9.00	
TRUCK DRIVER.....	\$ 13.50	.68

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

In the listing above, the "SU" designation means that rates listed under the identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division

U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

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DE-EM0000323

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List of Intellectual Property

Doc. #	Rev. #	Revision Date	Title
CM--P-IS-019	2	11/7/2005	Lock-out/Tag-Out
GB--R-EG-001	0	10/11/2005	Glovebox Pressure Test Report
CM--P-RP-314	3	11/23/2005	Personnel Decontamination and Skin Dose Calculation
CM--I-OP-011	0	10/24/2006	Jib Crane Installation Instruction
HC--I-OP-001	0	5/23/2007	Hot Cell Interim Supply Air Ventilation Start Up Instructions
CM--P-OP-407	1	11/9/2005	Temporary Modifications
CM--A-AD-011	1	11/8/2005	Configuration Management Program
CM--X-AD-026	0	7/20/2006	Records Inventory & Disposition Schedule (RIDS)
CM--X-OP-004	4	11/4/2005	Conduct of Operations Matrix
CH--P-AD-016	3	12/8/2005	Statistical Sampling & Analysis
CM--X-HS-002	3	12/1/2004	Radiological Worker Training Classroom Lesson Plan
CH--R-OP-002	1	10/20/2005	Determination of Training Requirement for NDE, NDA and HSG
CM--P-MT-506	5	10/17/2005	Main Building Ventilation Systems Preventive Maintenance
CM--A-AD-001	7	10/17/2005	Safety Management System Description
CM--A-FP-001	0	10/17/2005	Justification for not Conducting Hydrostatic Pressure Test After Water Mist Pressure Gauge Replacement
CM--A-EG-009	0	2/27/2006	Crosswalk of DOE-STD-1073 to Project Implementing Procedures
CM--P-IS-018	3	11/7/2005	Fire Prevention
BB--R-EG-001	0	12/28/2005	BBA & CHSA Door Airflow Direction Test Report
SN--X-OP-019	0	11/1/2002	WFP Supernate (SN) System (Plant Wide) Check List Task # Surrogate Demonstration Number 3
CM--X-RP-007	2	1/20/2006	TBD on Air Sampling and Analysis
CH--L-OP-019	0	1/30/2006	WIPP Waste Information System Practical Training
CH--L-OP-018	0	1/4/2006	WIPP Waste Information System Indoctrination

This list may not be all inclusive

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Source Selection Information -- See FAR 2.101 and 3.104

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Doc. #	Rev. #	Revision Date	Title
CM--P-RP-305	1	1/13/2006	Sealed Radioactive Source Control
CM--I-OP-013	0	1/21/2006	F-231 HEPA Filter Change Out
CM--X-AA-001	0	12/12/2005	Authorization Agreement for TRU Bldg. 7880 Complex, ORNL (November 2005)
CM--P-IS-024	1	12/28/2005	Fall Protection
CM--R-EG-002	0	10/18/2005	Instrument Calibration Self-Assessment
CM--P-AD-042	5	12/28/2005	Corrective Action
CM--P-AD-041	8	12/28/2005	Nonconformance Control
CH--L-OP-016	0	12/21/2005	NDE/RTR Comprehensive Examination Student Reference Guide
CM--P-OP-010	7	12/15/2005	Waste Processing Facility Conduct of Operations
CM--X-RP-003	1	12/12/2005	Technical Basis Document on Environmental Monitoring
CM--L-AD-001	0	12/13/2005	Senior Supervisory Watch Training
CM--P-AD-046	2	1/4/2006	Lessons Learned
SN--X-OP-027	0	6/11/2004	SN Final Form Requirements Memorandum Dated 6/11/04
CM--A-EN-004	4	10/17/2005	Air Permit Compliance Matrix
UT--R-EE-002	0	5/12/2003	Boiler Control Panel Incidents at the Foster Wheeler TRU/Alpha LLW Treatment Project in March and April 2003
UT--R-EE-001	1	4/1/2003	Investigative Report TRU Alpha Project Boiler Electrical Short Circuit
UT--P-OP-506	8	9/16/2005	Main Building Ventilation and HEPA Systems
SN--X-TT-003	0	8/1/2003	Surrogate Demo 1C
SN--X-TT-002	0	8/1/2003	Surrogate Demo 1B
UT--R-EE-004	0	5/22/2003	Fault Tree and Causal Factor Chart for the Investigation of the Boiler Control Panel Incidents at the Foster Wheeler TRU/Alpha LLW Treatment Project in March and April of 2003
SN--X-OP-028	0	12/6/2004	SN Alastro Summary
UT--R-EE-005	0	8/18/2003	Surrogate Waste Spill from F-202
SN--X-OP-026	0	6/9/2004	SN Final Form Requirements Memorandum with CD's

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Doc. #	Rev. #	Revision Date	Title
SN--X-OP-024	0	5/14/2003	SN System Testing May 2003 Checklist
SN--X-OP-023	0	12/23/2002	CCTV (TO-603)
SN--X-OP-022	0	12/23/2002	Test of Audible Annunciator GAI-Tronics System
SN--X-OP-021	0	11/20/2002	UPS Checklist (TO-107)
CM--A-00-002	1	2/28/2001	Project Decontamination and Decommissioning (D&D) Plan
SN--X-TT-001	0	8/1/2003	Surrogate Demo 1A
CM--I-OP-004	0	9/28/2005	Required Reading
CM--I-OP-010	0	10/7/2005	Emergency Radios
CH--P-OP-010	2	10/7/2005	Water Mist Fire Protection System
CM--P-AD-036	1	10/8/2005	Change Management
CH--P-OP-015	0	10/7/2005	Temperature Data Logger Operation
CH--R-OP-001	2	10/7/2005	Determination of Training Requirements for Contact Handled Solid Waste Operations
CM--I-OP-001	0	9/28/2005	Timely Orders to Operators
UT--R-EE-003	0	5/19/2003	Investigative Report: Boiler Control Cabinet Faults at the TRU/Alpha LLW Treatment Project in March and April of 2003
CM--I-OP-003	0	9/28/2005	Operator Aids
CM--X-RP-002	4	2/3/2006	Technical Basis Document on Contamination Monitoring
CM--I-OP-005	0	9/28/2005	Communications
CM--I-OP-006	0	9/28/2005	Turnover
CM--I-OP-007	0	9/28/2005	Log Keeping
CM--I-OP-008	0	9/28/2005	Shift Operations and Practices
CH--I-OP-001	0	9/28/2005	BBA Material Handling Recipes
UT--X-OP-001	0	12/6/2004	MBV Minimum Speed Setting Test Summary
CM--I-OP-002	0	9/28/2005	Independent Verification
CM--P-PC-408	0	1/17/2001	PD-402-1, Cost & Price Analysis
SN--I-OP-102	0	1/12/2005	Barrier Plan for Nitrogen Layup (T-SN-FW-I-OP-102004.1600, Rev. R0)

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Source Selection Information -- See FAR 2.101 and 3.104

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Doc. #	Rev. #	Revision Date	Title
CM--X-PP-001	0	10/3/2005	Timesheet Approval and Submittal
CM--P-AD-035	3	3/23/2006	Subcontractor Document Control
CM--P-RP-302	2	3/22/2006	Internal Dosimetry Program
CM--A-00-001	2	3/21/2006	Small Business Subcontracting Plan
CM--X-AD-002	2	3/22/2006	Subcontract Exhibit B-2, Time and Materials Policy, Rev. 2
CM--X-PP-003	1	3/13/2006	Overtime Requirements for Exempt and Non-Exempt Personnel
CH--P-AD-015	3	3/16/2006	Use of Acceptable Knowledge
CH--L-OP-017	1	3/28/2006	WIPP Awareness Training
CM--P-PC-407	0	8/4/2000	PD-401-4, Use of Contract Types
CM--P-PC-406	0	10/24/2000	PD-400-4, Unauthorized Commitments & Ratifications
CM--P-PC-405	0	8/4/2000	PD-400-1, Standards of Conduct, Procurement Integrity & Anti-Kickback
CM--P-PC-400	0	1/4/2001	PD-400, Procurement Overview
CM--P-PC-300	0	10/7/1998	PD-300, Commercial Procurement
CM--P-AD-043	5	1/23/2006	Work Suspension and Restart
CM--X-RP-006	1	3/16/2006	Technical Basis Document for Internal Dosimetry
CM--P-EM-100	0	6/29/2006	Emergency Events
CM--L-IS-009	0	5/18/2006	Designated Lift Supervisor
CM--L-IS-008	0	5/9/2006	Floor-Operated Cranes Performance Evaluation
CM--L-IS-007	0	5/9/2006	Crane & Rigging Training
CH--P-OP-021	4	4/27/2006	Visual Examination to Confirm Radiography
CM--I-PC-003	0	6/1/2006	Material Receiving
CH--P-AD-009	5	4/19/2006	Project Level Verification & Validation
CM--X-PP-002	0	11/22/2005	Filling Permanent Project Positions
CM--P-EM-102	0	6/30/2006	Conduct of Drills
CM--L-AD-010	0	6/21/2007	Unreviewed Safety Question Evaluator Training
CM--M-EM-100	0	6/29/2006	Local Emergency Manual
CM--L-IS-006	0	4/11/2006	Electrical Worker Qualification

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Source Selection Information -- See FAR 2.101 and 3.104

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CM--P-IS-008	3	4/10/2006	Electrical Safety
CH--P-AD-010	3	4/3/2006	Reconciliation of Data Quality Objectives
CM--L-RP-002	1	4/3/2006	RCT Continuing Training 2005-01, Alpha/Beta Instrumentation
CM--R-IS-001	0	4/5/2006	Electricially Safety Awareness Investigation Report
CM--P-AD-059	5	4/19/2006	Controlled Document Distribution
CM--R-AD-004	0	2/9/2006	Management Assessment Package to Verify Implementation of DSA Rev. 11 and TSR Rev 10 (Implementation Matrix)
CM--P-IS-009	8	3/9/2006	Inspections
CM--P-QA-016	3	2/21/2006	Control of Measuring & Test Equipment
CM--P-AD-060	6	2/21/2006	Management Assessment
CM--P-QA-018	4	2/21/2006	Assessment Planning
CM--P-QA-005	6	2/21/2006	Surveillances
CM--L-AD-007	0	2/21/2006	OJT Instructor Qualification
CM--P-EG-002	0	3/13/1998	ENG-2, Engineering Interface
LL--A-OP-005	3	2/14/2006	Low Level Waste Profile
CM--P-EG-003	0	9/2/1999	ENG-3, Developing & Issuing Engineering Documents
CM--P-OP-003	2	2/7/2006	Control of Process Bldg. Doors
CM--P-IS-021	3	2/7/2006	Hot Work
CH--P-AD-006	4	2/7/2006	WIPP Graded Approach
CM--P-RP-327	4	2/3/2006	Low Background Counter Operation
CM--X-RP-001	3	2/3/2006	Technical Basic Document on Personnel Monitoring
CM--P-RP-332	2	2/3/2006	Operation of the Ludlum Model 3030E Alpha-Beta Sample Counter
CM--L-AD-005	0	2/21/2006	Instructor Qualification
CM--P-PC-402	0	10/2/2000	PD-402, Solicitation Evaluation
CH--I-OP-002	0	3/10/2006	Drum Filter Replacement or Refitting, Drum Lid or Ring Replacement
CM--L-AD-008	0	3/7/2006	DOT Security Awareness Training
CM--L-QP-001	0	3/3/2006	Suspect/Counterfiet Items Awareness Training - March 2004

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CM--L-AD-004	1	3/2/2006	SME Instructor Training
CM--P-PP-001	0	9/28/2000	PP-14, Substance Abuse Program
CM--P-AD-001	0	10/2/2000	PO-1, Project Management Planning
CM--P-EG-001	0	3/13/1998	ENG-1, General Procedure for Professional Activities
CM--P-PC-403	0	12/13/2000	PD-403, Procurement Administration - Project Execution
SN--X-OP-018	0	11/1/2002	WPF Supernate (SN) System (Plant Wide) Check List Task # Surrogate Demonstration Number 2
CM--P-PC-401	0	12/4/2000	PD-401, Acquisition Planning
CM--P-EG-009	0	9/2/1999	ENG-10, Training in Engineering Procedures
CM--P-EG-008	0	3/13/1998	ENG-8, Record Drawings
CM--P-EG-007	0	9/2/1999	ENG-7, Design Verification
CM--P-EG-006	0	9/2/1999	ENG-6, Preparation of Calculations
CM--P-EG-005	0	9/2/1999	ENG-5, Design Classification Levels & Project Engineering Reviews
CM--P-PC-404	0	12/11/2001	PD-404, Procurement Closeout
CM--P-IS-027	1	4/29/2003	Respiratory Protection
CM--P-IS-014	0	9/23/2002	Posting and Labeling
CM--P-RP-301	4	6/10/2005	External Dosimetry Program
CM--P-OP-406	0	6/27/2003	Verification and Validation Guidance for Operations Procedures
CM--P-OP-110	0	5/18/2005	Waste Container Handling
CM--P-MT-012	5	4/22/2004	Emergency Equipment Preventive Maintenance
CM--P-MT-007	0	6/9/2003	Post Maintenance/Extended Downtime Insulation Resistance Testing
CM--P-RP-312	2	5/11/2005	Instrument Use, Calibration, and Daily Checks
CM--P-IS-039	0	9/23/2002	Hand and Portable Power Tools
CM--P-RP-313	1	1/15/2004	Radiological Work Permits
CM--P-IS-026	0	10/7/2002	Hearing Conservation
CM--P-IS-023	0	9/23/2002	Scaffolding
CM--P-IS-022	2	11/11/2003	Confined Space Entry

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CM--P-IS-017	0	10/3/2002	Personal Protective Equipment
CM--P-IS-016	0	9/20/2002	Materials Handling
CM--R-SC-001	0	1/14/2004	Qualitative Evaluation of Selected Cracks in the Process Building
CM--P-MT-001	1	3/21/2005	Preventive Maintenance of Idle Equipment
CM--P-RP-329	1	12/18/2003	Electronic Dosimetry System Operation
SN--X-OP-020	0	11/18/2002	WPF SN System Stand By Diesel Generator Checklist (TO-103)
CM--R-MT-001	0	8/17/2004	Main Building Ventilation Blower Grout Report
CM--R-AD-003	1	7/28/2003	RAM
CM--P-WD-004	0	12/30/2001	Shielded Metal Arc Welding (SMAW) General Welding Procedure
CM--P-WD-003	2	12/20/2002	Welding Procedure Specifications and Procedure Qualification Records
CM--P-WD-002	0	10/31/2001	Gas Tungsten Arc Welding (GTAW) General Welding Procedure
CM--P-RP-306	2	1/20/2004	Radiation/Contamination Surveys
CM--P-RP-331	2	9/11/2003	RadNet Operation
CM--P-IS-013	1	7/25/2005	Medical Services and Bloodborne Pathogens Program
CM--P-RP-328	0	3/3/2003	Operation of the Alpha/Beta Smear Counter
CM--P-RP-326	1	9/11/2003	Area Radiation Monitor Operation
CM--P-RP-324	3	9/11/2003	Operation of the Personnel Contamination Monitor
CM--P-RP-321	1	10/6/2003	Radiological Protection Records
CM--P-RP-320	1	9/12/2003	Dose Reporting and Records
CM--P-RP-319	1	9/27/2002	Radiological Posting and Labeling
CM--P-WD-001	0	10/31/2001	Filler Metal Control
CM--A-EG-005	0	12/10/2003	Justification for not providing automatic sprinklers within certain areas of the Process Building
CM--P-IS-015	1	6/4/2004	Incident Reporting and Investigation
CM--A-TT-001	2	1/22/2003	Treatability Testing
CM--A-RP-004	7	11/13/2004	Implementation of Radiation Protection Practices
CM--A-RP-002	6	3/28/2003	Radiation Protection Program Implementation Plan

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CM--A-RP-001	7	9/12/2003	Radiation Protection Program Confirmation Matrix
CM--A-QP-002	0	8/20/2001	Construction Quality Plan
CM--I-MT-002	4	1/17/2005	Rotating Equipment Preventive Maintenance Work Instruction
CM--A-HS-003	0	1/13/2001	FWENC Project Rules Handbook
CM--I-MT-003	1	9/9/2003	Gear Drive & Mixer Preventive Maintenance Work Instruction
CM--A-EG-001	0	11/30/2000	Design Criteria Package
CM--A-CS-001	0	12/8/2000	Construction Work Plan
CM--A-AD-012	0	9/16/2005	TRU/Alpha LLW Treatment Project Documented Safety Analysis Implementation Validation Review (IVR) Plan
CM--A-AD-010	0	11/25/2003	Implementation of the Quality Categorization Process
CM--A-AD-009	2	1/27/2003	Communication Plan
CM--A-AD-002	0	11/3/2000	Site Occupancy Plan
CM--A-HS-020	0	11/20/2001	General Employee Radiological Training Lesson Plan
CM--P-AD-034	1	10/15/2004	Project Personnel Exit Interviews
CM--P-IS-011	0	9/23/2002	EHS Recordkeeping
CM--P-IS-010	0	11/4/2002	Industrial Hygiene Monitoring
CM--P-IS-006	1	11/4/2002	Safety/Committee Meetings
CM--P-IS-004	1	6/30/2004	Hazard Communication
CM--P-IS-001	1	10/31/2003	Light Vehicle Operation
CM--P-AD-047	3	12/30/2004	Evaluation and Reporting of Potential Price-Anderson Amendments Act Noncompliances (PAAA)
CM--I-MT-001	0	2/14/2003	Dryer Gland(s) Work Instruction
CM--P-AD-038	2	2/22/2004	Occurrence Reporting
CH--A-OP-009	0	7/25/2005	Contact Handled Waste Initial Radioactive Operations Plan
CM--L-RP-001	0	8/24/2005	Neutron Dosimetry Lesson Plan
CM--L-IS-003	0	4/5/2006	Powered Air Purified Respirator Lesson Plan
CM--L-IS-002	0	5/18/2005	Airline Respirator Lesson Plan

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CM--L-IS-001	0	4/30/2003	Respiratory Protection Lesson Plan
CM--I-MT-005	0	9/2/2003	Tank Level Element Repair/Replacement Work Instruction
CM--I-MT-004	2	10/29/2003	Tank Bottom Valve Work Instruction
CM--P-AD-039	3	12/28/2004	Graded Approach
CH--R-AD-001	0	6/16/2005	Glove Box Design Basis Fire Impacts Analysis on Main Building Ventilation HEPA Trains
SN--A-AD-002	1	6/11/2003	Contractor ORR Implementation Plan
SN--R-TT-003	0	11/26/2003	Dryer Discharge Soak Demonstration Report
SN--R-RP-001	0	3/2/2004	Supernate Shield Survey Report
SN--R-OP-001	0	5/27/2003	Determination of Training Requirement for SN Operations
SN--R-AD-001	0	10/23/2003	CORR Final Report for Supernate Process
SN--I-RP-001	2	1/20/2004	Radiation Survey during Initial FW Operation
SN--X-OP-001	0	11/1/2002	Plant and Instrument Air Checklist Task # TO-101
CH--R-OP-003	0	9/20/2005	Inventory Control Spreadsheet (ICS) Functional Design, Verification, and Validations Document
SN--X-OP-002	0	11/1/2002	Boiler, Steam and Condensate Checklist Task # TO-106
BB--R-IC-001	0	6/20/2005	Breathing Air System Evaluation of CO Monitor High Pressure Protection
CM--X-QP-001	0	6/1/2001	Standard Checklist Form - Grounding
CM--X-RP-010	0	10/31/2005	Technical Basis Document on Alpha CAM Alarm Set Points
CM--X-RP-009	0	10/3/2002	Radiological Control Technician Training Site Academic Training Self Study Guide
CM--X-RP-004	1	10/22/2003	Technical Basis Document on Continuous Air Monitor Selection
CM--R-OP-001	0	7/25/2005	Procedure Grading Matrix
CH--X-RP-001	0	5/10/2005	CH Waste Dose Evaluation
SN--X-OP-009	0	11/1/2002	Subsystem Test Check List Task-30 Ton Crane
SN--X-OP-017	0	11/1/2002	WPF Supernate (SN) System (Plant Wide) Check List Task # Surrogate Demonstration Number 1

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SN--X-OP-016	0	11/1/2002	WPF Supernate (SN) System (Plant Wide) Check List Task # System Integrated Operation (SIO)
SN--X-OP-015	0	11/1/2002	Vertical Reciprocating Conveyor Check List Task # TO-605
SN--X-OP-014	0	11/1/2002	1st Floor Isolock Sampler Check List Task # TO-208
SN--X-OP-013	0	11/1/2002	Supernate Evaporation System Checklist Task # TO-400, 401, 402, 403
SN--X-OP-012	0	11/1/2002	Chemical Addition System Check List Task TO-111
SN--X-MT-001	0	11/13/2003	SN Campaign Purchased Spare Parts
SN--X-OP-010	0	11/1/2002	Supernate Drying Subsystem Test Check List Task # TO-300
SN--A-AD-001	1	9/9/2002	Contractor ORR Plan of Action for Supernate....
SN--X-OP-008	0	11/1/2002	Process Chiller and Chill Water (SN Only) Check List Task # TO-104
SN--X-OP-007	0	11/1/2002	Supernate Tank Farm Check List Task # TO-201
SN--X-OP-006	0	11/1/2002	Supernate Tank Farm Check List Task # TO-202
SN--X-OP-005	0	11/1/2002	Supernate Tank Farm Check List Task # TO-203
SN--X-OP-004	0	11/1/2002	Environmental Chiller Check List Task TO-501
SN--X-OP-003	0	10/31/2002	SN Pump Seal Water Check List
SN--X-OP-011	0	11/1/2002	Supernate Bogies Handling System Check List Task # TO-301
CH--P-MT-410	0	1/6/2005	Glovebox Station 1 Drum Crusher Preventive Maintenance
SN--A-AD-003	2	6/25/2003	Management Self-Assessment Review Criteria & Required Evidence for the Supernate Process
CM--X-AD-010	4	3/22/2001	FAR/DEAR Flowdown Clauses (cost reimbursable/time-and-material)
CM--X-AD-009	4	3/22/2001	FAR/DEAR Flowdown Clauses (fixed price)
CM--X-AD-008	0	1/7/1999	Subcontract Exhibit H, Waste Management Qualifications and Data Questionnaire
CM--X-AD-006	0	1/7/1999	Subcontract Exhibit F, Representations and Certifications
CM--X-AD-004	0	7/1/1996	Subcontract Exhibit D, Subcontract Release Form
CM--X-AD-012	0	1/4/2001	Exhibit A-15, Subcontractor Profile - Environmental Health and Safety Program Areas

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CH--P-MT-411	0	1/6/2005	Glovebox Station 5 Waste Compactor Preventive Maintenance
CM--X-AD-013	4	7/30/2004	Exhibit A-16, Construction Labor Agreement
CH--P-MT-404	1	7/6/2005	Contact Handled Waste Scales Preventive Maintenance
CH--P-MT-403	0	12/17/2004	Box Breakdown Area Enclosure Preventive Maintenance
CH--P-MT-401	0	1/17/2005	Hot Cell BBA Supply and Exhaust Blowers Preventive Maintenance
CH--L-OP-013	0	9/12/2005	Drum Handling (pressurized and explosive gas) Instructor Guide & Student Text
CH--L-OP-006	0	7/25/2005	Evolution Saw Lesson Plan
CH--A-OP-010	0	12/23/2004	Contact Handled Waste Operational Test Plan
CM--X-AD-001	4	3/14/2005	Subcontract Exhibit A-2, Prime Contract Statement of Work
CM--X-AD-021	1	10/31/2001	Exhibit A-29, Project Location and Directions
SL--A-CE-001	0	3/18/2002	Shielding Eval. Sludge Processing Area
CM--X-OP-005	3	7/6/2005	WPF Turnover Checklist
CM--X-OP-003	6	4/16/2004	WPF Standby Round Sheet
CM--X-OP-002	10	4/22/2004	WPF Round Sheets
CM--X-OP-001	10	5/26/2004	WPF Log Sheets
CM--X-HS-005	0	6/30/2003	Critique Report - EMPP Drill (March 21, 2003)
CM--X-AD-011	0	1/4/2001	Exhibit A-14, Special Provisions - Environmental Health and Safety
CM--X-HS-001	0	2/4/2002	General Employee Radiological Training Lesson Plan
CM--L-AD-011	0	5/16/2006	Intergrated Safety Management System Orientation
CM--X-AD-020	0	9/17/2001	Exhibit A-28, Certification of Seller Understanding/Preparedness
CM--X-AD-019	0	9/14/2001	Exhibit A-25, Safety Incentive Program
CM--X-AD-018	0	1/10/2001	Exhibit I, Credit References
CM--X-AD-017	1	9/26/2001	Exhibit A-22, Certificate of Compliance
CM--X-AD-016	0	1/4/2001	Exhibit A-19, Anti-Kickback Letter
CM--X-AD-014	0	1/4/2001	Exhibit A-17, Letter of Assent
CM--X-HS-003	0	2/4/2002	RWT Practical Factors Lesson Plan

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CM--L-EN-003	2	4/24/2007	General Hazardous Waste Management (RCRA) Training **SUSPENDED**
CM--L-EN-006	0	5/1/2007	RCRA Annual Training Summary
CH--P-OP-001	13	4/30/2007	Receipt of CH Solid Waste to Contact Handled Staging Area
CH--P-OP-002	10	4/30/2007	Contact Handled Staging Area Operations
CM--P-AD-064	1	4/30/2007	Obtaining Exceptions to TWPC Training Requirements
CM--Y-BO-001	1	4/27/2007	Reimbursing Travel and Living Expenses to Personnel on Long-Term Travel Status
CH--P-OP-013	6	4/30/2007	Contact Handled Waste Repackaging
CM--L-AD-009	1	5/3/2007	DOT Emergency Response for Access Control Personnel--SUSPENDED--
CM--L-RP-006	0	5/17/2007	RCT Core Academics
CM--P-PA-002	0	5/10/2007	Managing TWPC Performance for Continuous Improvement
LL--L-WP-001	0	5/1/2007	NDA Performance Demonstration. Program
CM--L-OP-003	1	4/12/2007	Operations Continuing Training 2006-03, Conduct of Operations Refresher Training **SUSPENDED**
CM--L-EM-001	3	4/12/2007	General Employee Emergency Management **SUSPENDED**
CH--L-OP-030	0	5/16/2007	Ops Cont Trg 2007-2 Operate Inventory Bar Code Scanner
CM--P-IS-003	1	4/4/2007	General Employee and Visitor Training
CH--P-MT-406	1	5/21/2007	Water Mist System Preventive Maintenance
CM--L-RP-007	0	5/17/2007	RCT Site-Specific Academics
CM--P-RP-318	4	5/7/2007	As Low As Reasonably Achievable (ALARA) Program
CH--P-OP-019	4	5/3/2006	Non-Destructive Assay, Non-Destructive Examination, & Head Space Gas Operations, And Summa Sampling Training Program Description
CH--A-AD-011	3	5/17/2007	WIPP Related Training Program Description
CM--L-EN-005	1	5/16/2007	RCRA Inspector Training
CM--X-AD-031	1	5/14/2007	TWPC Training Implementation Matrix for DOE O 5480.20A
UT--P-OP-505	6	5/14/2007	Diesel Generator System
UT--P-OP-512	6	5/14/2007	Fire Suppression System

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CH--P-OP-036	3	5/1/2007	Foam Receipt, Storage, & Transfer
CM--P-AD-048	8	5/10/2007	Issues Management
CH--L-OP-012	3	4/2/2007	Documented Safety Analysis (DSA) & Technical Safety Requirements (TSRs)
CM--A-FP-002	1	5/9/2007	Fire Prevention Program
CM--I-OP-009	1	5/8/2007	Pre and Post Job Brief
CH--P-OP-033	1	5/8/2007	Continuous Flow Breathing Air Purifier
CM--L-EN-001	4	5/7/2007	Resource Conservation and Recovery Act Training (RCRA)
CM--L-EN-007	0	5/9/2007	RCRA Permit Update Continuing Training 2007-001
CM--A-QP-001	8	4/30/2007	Quality Assurance Program Description
CM--P-RP-316	5	5/14/2007	Radiological Worker Training
CM--A-AD-018	0	4/17/2007	Start-up and Restart of Nuclear Activities
LL--A-OP-006	1	4/4/2007	Mixed Low Level Waste /Low Level Waste Verification and Certification
CM--P-IS-002	3	3/5/2007	Equipment Operation
CM--L-RP-005	0	4/25/2007	Radiological. Worker II Training
CM--L-RP-004	0	4/25/2004	Radiological. Worker I Training
CM--I-PC-001	1	3/5/2007	Using Approved Blanket Purchase Orders
CM--P-OP-404	10	2/26/2007	Waste Transportation
CM--X-AD-028	2	3/12/2007	Project File Index
CM--Y-HR-001	0	2/27/2007	Employee Concerns Policy
CM--X-AD-029	2	3/12/2007	Waste Records Filing Matrix
CM--Y-GM-001	0	4/10/2007	Reporting Fraud, Waste and Abuse
CH--I-OP-011	0	3/19/2007	Waste Container Labeling
CM--L-WP-001	0	3/15/2007	Skolnik Waste Comtainer Equivalent Packaging Certification Notification
CH--P-PC-001	2	2/21/2007	Procurement of Waste Items and Services
LL--A-OP-008	3	2/20/2007	NTSWAC, Rev. 6, Mixed Low Level Waste/Low Level Waste Implementation Crosswalk (NIC)
CM--P-IS-007	4	2/20/2007	Activity Hazards Analysis

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CM--P-AD-049	6	2/28/2007	Records Management
LL--A-OP-010	1	3/27/2007	NTS WAC Rev 6, Mixed Low Level Waste Profile
CM--R-AD-007	0	3/29/2007	Contractor Readiness Assessment Final Report for Macro-Encapsulation
CM--L-IS-004	1	4/2/2007	General Employee Training
CH--L-OP-020	1	3/28/2007	Operations Continuing Training 2006-02, Visual Examination in Lieu of Radiography- -(SUSPEND)
CH--L-OP-023	1	3/28/2007	Operations Continuing Training 2006-07, Change Summary of DSA, (12), & TSR, (11) SUSPEND
CH--L-OP-022	1	3/28/2007	Operations Continuing Training 2006-05, Fork Truck Lessons Learned Student Text (SUSPEND)
CM--P-QA-020	3	3/28/2007	Independent Assessment
CM--P-IS-012	3	3/7/2007	Powered Industrial Trucks
CM--X-IS-001	0	3/29/2007	TWPC Source Documents for Existing Hazard Assessment Information
CM--Y-HR-002	0	8/30/2007	Workplace Substance Abuse Policy
LL--P-OP-001	3	3/22/2007	Mixed Low Level Waste/Low Level Waste Tracking
CH--P-AD-044	4	3/22/2007	Waste Corrective Action & Non-Conformances
UT--P-MT-503	0	5/8/2007	Water Supply System Preventive Maintenance
CM--R-AD-001	13	3/1/2007	Documented Safety Analysis (DSA)
CM--X-AD-022	13	3/8/2007	Technical Safety Requirements (TSR)
CH--P-OP-035	1	3/12/2007	Container Fill
BB--I-OP-003	0	5/21/2007	Filter Housing F-213B, Train B1 & B2 Differential Pressure Comparison/Adjustment Instructions
CH--P-OP-009	4	8/2/2007	Breathing Air Compressor System
CM--L-RP-008	0	7/18/2007	Radiological Containment Basics
CH--P-OP-004	9	8/7/2007	Glove Box Operations
CH--P-OP-003	8	8/7/2007	Box Breakdown Area Operations
LL--R-AD-001	0	8/7/2007	Nevada Test Site Characterization Event Technical Status Report

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CM--L-EN-009	0	8/7/2007	RCRA Continuing Training 2007-03 (Inspection for Liquid Treatment)
CH--R-AD-004	3	8/2/2007	Technical Safety Requirements/Procedure Matrix, Rev. 13
CM--P-RP-330	5	8/8/2007	Alpha Continuous Air Monitor Operation
CM--P-IS-025	4	8/2/2007	Hoisting and Rigging
CH--A-OP-011	6	8/8/2007	Contact Handled Waste Container Selection Process
CM--X-AD-015	1	8/2/2007	Exhibit A-18, Service Contract Wage Determination--" TERMINATED"
CM--X-AD-007	1	8/2/2007	Subcontract Exhibit G, Y2K Compliance" TERMINATED"
CM--X-AD-005	1	8/2/2007	Subcontract Exhibit E, Security Agreement" TERMINATED"
CM--X-AD-003	1	8/2/2007	Subcontract Exhibit C, Insurance Requirements-" TERMINATED"
CH--R-AD-002	2	7/19/2007	Crosswalk - Documented Safety Analysis, Rev. 10 **SUSPENDED**
CM--A-HR-001	0	8/30/2007	Workplace Substance Abuse Program (WSAP) Plan
BB--I-OP-002	1	8/2/2007	Room 226 BBA Inner Airlock Ventilation Adjustment/Acceptance Instructions
CM--I-PA-001	0	8/23/2007	Risk Assessment Form
LL--R-AD-002	1	8/28/2007	Nevada Test Site Characterization Event Corrective Action Plan
CM--A-AD-004	11	8/24/2007	TWPC Project Management Plan
CM--R-PA-001	0	8/24/2007	Risk Register Report
CM--A-AD-021	0	8/1/2407	Risk Management Plan
CM--Y-EN-001	0	8/20/2007	Environmental Management System Policy
CM--A-EN-006	0	8/28/2007	Regulatory Management Plan (Reg MP)
CM--P-RP-309	12	8/8/2007	Environmental Permits - Inspections/Monitoring and Reporting
CM--L-AD-020	0	8/21/2007	Hazardous Material General Awareness Training
CM--A-EG-008	3	7/17/2009	System Engineer Program Description
CM--R-AD-002	9	8/20/2007	Fire Hazards Analysis (FHA)
GB--I-OP-003	0	8/22/2007	Adjust Damper Positions and Air Flow thru the Glovebox (Stations 1, 2 & 3)
CM--L-IS-005	5	8/13/2007	Hazard Waste Training Requirements to Meet 29 CFR 1910.120(p)
CH--P-OP-014	9	8/13/2007	CH Waste and Activity Inventory Control
CM--A-GM-001	0	8/22/2007	TRU Waste Management Transition Assessment Plan

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GB--I-OP-002	1	8/9/2007	Instructions to Establish Damper Positions and Air Flow thru the Glovebox (Stations 1, 2 & 3)
CM--A-EN-005	0	8/28/2007	Sustainable Environmental Stewardship Plan
LL--L-OP-001	2	6/7/2007	General NTS Orientation Training
CM--P-AD-037	6	7/16/2007	Unreviewed Safety Question Process
CM--P-QA-004	3	6/12/2007	Material Receipt Inspection
CM--L-HS-002	0	6/21/2007	Hazard Recognition Training
CM--L-HS-001	0	6/21/2007	Peer Safety Observer Communication
CM--P-AD-061	5	6/12/2007	Document Preparation, Review & Approval
CM--X-OP-006	4	6/4/2007	WPF CH Round Sheets
CM--I-BO-001	0	8/13/2007	FileMaker Development Guidelines
CH--P-OP-020	6	6/7/2007	Operations Training Program Description
CM--L-EN-008	0	6/20/2007	RCRA Permit Update Continuing Training 2007-02, (Treatment of Liquids & Mercury)
CM--X-AD-024	3	6/6/2007	Safety Basis Document List and Safety Basis Change Tracking System
CH--R-OP-005	3	5/3/2007	Inventory Control Spreadsheet (ICS) Ver. 6.0 Verification & Validation Document
CM--X-RP-008	6	6/5/2007	RCT Training Qualification Standard
CM--P-RP-317	5	6/5/2007	Radiological Control Technician Training
CM--L-EN-002	5	6/5/2007	RCRA Permit Position Training Requirements
CM--A-IS-001	7	5/17/2007	Worker Health and Safety Program
CM--P-RP-333	0	6/25/2007	Internal Audit of Radiological Protection Program
CH--P-OP-034	5	6/28/2007	Macro-Encapsulation
CH--P-OP-011	11	7/17/2007	Drum Bag In/Bag Out & Glove Ports
CH--L-OP-032	0	7/25/2007	Size Reduce CH Waste with Powered Tools
CM--L-AD-003	3	7/16/2007	On-The-Job Instructor Training
CM--L-AD-019	0	7/17/2007	TWPC General Employee Training Supplement

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CM--I-EN-004	0	8/28/2007	Environmental Checklist
CM--R-AD-008	0	7/9/2007	TWPC Baseline Document
CM--A-OP-001	1	6/13/2007	Hazardous Materials Transportation Security Plan
CH--L-OP-031	0	7/3/2007	Create / Revise Waste Containers in WICS
LL--A-OP-004	5	2/15/2007	Mixed Low Level/Low Level Waste Analysis Plan
CH--I-QA-007	2	6/28/2007	Receipt Inspection Checklists for Designated Waste Related Items
CM--M-BO-003	0	7/12/2007	Finance and Accounting Manual
CM--M-BO-002	0	8/13/2007	Waste Inventory Control System User Manual
CM--P-RP-310	4	6/25/2007	DOT Shipment Surveys
CM--P-RP-322	4	6/25/2007	Contamination Control
CM--L-AD-018	0	7/12/2007	Unreviewed Safety Question Evaluator Qualification
CH--P-OP-005	6	7/3/2007	F-213 Filter Replacement
CM--L-QP-002	0	8/21/2006	Non-WIPP Auditor Qualification
CM--R-EG-003	0	8/17/2006	TRU Waste Process Building Room Volumes
CM--R-AD-005	0	9/20/2006	Intellectual Property Documents
CH--P-OP-006	4	8/30/2006	Return Transfer to DOE
CH--R-OP-004	0	8/31/2006	Inventory Control Spreadsheet (ICS) Ver. 2 Verification & Valifidation Document
CM--P-EM-101	1	8/15/2006	Atypical Events
CM--P-MT-512	6	8/23/2006	Fire Detection and Suppression System Preventive Maintenance
CM--L-IS-010	1	9/20/2006	Lockout/Tagout Training
CM--L-QP-003	0	8/21/2006	Non-WIPP Lead Auditor Qualification
CM--R-EG-004	0	12/6/2006	DNFSB Recommendation 2004-2 Process Building Ventilation System Evaluation (DOE's Implementation Plan)
UT--P-OP-516	3	8/16/2006	Main Building Ventilation HEPA Filter Changeout
CM--L-RP-003	1	8/14/2006	RCT Continuing Training 2006-01 Internal Dosimetry II
CH--P-MT-402	1	8/10/2006	Glovebox Preventive Maintenance

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CM--P-MT-005	6	8/10/2006	Hoists, Cranes, and Rigging Preventive Maintenance
CH--L-OP-021	1	9/6/1989	Operations Continuing Training 2006-04, Software Quality Management Lessons Learned
RH--R-AD-001	2	2/20/2007	RH Debris and Sludge Operability Review
UT--P-MT-505	8	8/21/2006	Diesel Generator Preventive Maintenance
UT--P-OP-511	2	10/16/2006	Motor Control Center Operations and Electrical Distribution
CM--A-AD-015	0	10/25/2006	TWPC Contract Conversion Transition Plan
SN--P-OP-113	2	10/24/2006	F-202 Evaporator Filter Replacement
CH--P-MT-405	3	10/23/2006	Breathing Air Compressor System Preventive Maintenance
CH--L-OP-007	1	10/19/2006	Portable Power Tools
CM--L-AD-015	0	10/18/2006	Advanced Mixed Waste Shipper Certification
CH--L-OP-011	1	10/16/2006	Safety Conscious Work Environment
SN--I-OP-110	0	1/10/2005	Nitrogen Sweep and Padding of Supernate and Auxiliary Support Systems
CM--P-OP-011	5	10/16/2006	Programmable Logic Controller and Human Machine Interface Operations
CM--L-EM-002	0	8/2/2006	Building Warden Orientation
CM--P-IS-005	2	10/11/2006	Compressed Gases
CM--P-EN-002	1	10/11/2006	Environmental Assessments
CH--X-AD-001	5	10/11/2006	Contact Handled Waste Acceptance Criteria
CM--L-OP-007	0	10/16/2006	Conduct of Operations
CM--L-AD-014	1	9/27/2006	Light Vehicle Operator
CM--R-ME-001	1	9/26/2006	HVAC Supply & Exhaust Damper Position Verification
CH--L-OP-010	1	10/16/2006	Fire Emergency Response and Facility Evacuation
CM--A-MT-001	4	5/23/2006	Reliability Assurance Program Description
HC--X-ME-001	0	8/10/2006	Hot Cell Air Balance Evaluation
CM--L-OP-002	0	6/8/2006	Acceptable Knowledge General Training
CH--A-QP-005	6	5/22/2006	Contact Handled TRU Waste Characterization Program Quality Assurance Project Plan

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Doc. #	Rev. #	Revision Date	Title
CH--M-AD-001	3	5/22/2006	Transuranic Waste Management Manual
CM--I-PC-004	0	5/25/2006	Allocation of Costs to Fixed Price & Cost Reimbursable Contract Work Instructions
BB--I-OP-001	0	5/23/2006	BAS Vortex Cooler Test Instructions (Ref:T-BB-FW-WI-OP-051706-1017, R0)
CH--I-OP-003	0	6/22/2006	Opening & Sampling CH Waste Container Boxes
CH--P-AD-013	3	5/23/2006	WIPP Software Quality Assurance
CM--I-EN-001	0	7/18/2006	Work Instruction for Pump and Haul Escort
CM--A-MT-002	4	5/23/2006	Preventive Maintenance
CH--A-AD-002	0	6/15/2006	Software Quality Assurance Plan Transuranic Data Management System
CM--L-OP-001	1	5/17/2006	Operations Continuing Training 2006-03, Electrical Safety Lessons Learned -- TERMINATED
CM--X-AD-030	0	10/5/2006	Safety Basis Implementation and Maintenance
CH--P-AD-011	3	5/10/2006	CH-TRU Waste Certification Procedure
CM--R-GM-001	2	8/31/2007	Monthly Progress Report--July 2007
CH--P-AD-014	3	5/23/2006	WIPP Waste Information System (WWIS) Data Entry
UT--P-OP-507	3	6/29/2006	Uninterruptible Power Supply
CM--P-RP-307	7	7/27/2006	Radiological Air Monitoring
UT--P-OP-508	4	7/13/2006	HVAC Duct Heaters
UT--P-OP-509	3	7/11/2006	Vertical Reciprocating Conveyor Operation
SN--P-MT-100	6	6/29/2006	Supernate Transfer Pipe Secondary Containment Pressure Indicating Transmitter Preventive Maintenance
UT--P-OP-503	5	6/29/2006	Water Supply System
CM--P-OP-013	9	6/29/2006	Emergency/Atypical Events
CM--A-ME-001	0	6/29/2006	Main Building Ventilation System Description
UT--P-OP-500	4	6/29/2006	Environmental Chilled Water System and Air Handling Units
UT--P-MT-507	3	10/25/2006	Uninterruptible Power Supply Preventive Maintenance

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CM--X-FP-001	0	11/30/2006	Fire Protection Program Cross-Walk To key Requirement of DOE Order O 420.1A Facility Safety
CM--L-PC-002	0	7/31/2006	P-Card User Training
CM--L-PC-001	0	7/12/2006	Requisitioner Training
CM--R-OP-002	0	6/14/2006	Critique for Waste Processing in the BBA
CM--I-QA-001	0	6/13/2006	Lessons Learned Work Instruction
UT--P-OP-501	4	6/12/2006	Process Chill Water System
CM--A-HS-001	8	6/29/2006	Emergency Management Project Plan
CM--X-AD-023	7	5/30/2007	Inventory and Container Management
CM--A-AD-003	5	10/24/2006	Training Program
CM--Y-HS-001	0	8/28/2007	Safety Policy Statement
CH--I-OP-014	0	8/1/2000	ME of Surrogate Waste Box for Off-site DOT 7A Cert. Testing
CH--X-WP-001	0	8/7/2007	DOE ORO Strategy for Contact Handled Transuranic Waste Disposition
CH--L-OP-005	2	7/30/2007	Visual Examination Process **SUSPENDED**
CH--I-OP-013	0	8/8/2007	Absorbing Liquids
CH--I-OP-010	1	4/11/2007	Macro Encapsulation Unit Functional Test Instruction
CH--L-OP-033	0	7/26/2007	Size Reduce CH Waste w/Powered Tools, OJT Guide (Ops Continuing Training 2007-03)
CH--I-OP-009	1	4/11/2007	Macro Encapsulation Unit Demonstrate Test Instruction
HC--I-OP-003	0	6/27/2007	Hot Cell Interim Exhaust Air Ventilation Start Up Instructions
CM--P-MT-003	6	5/24/2007	Waste Processing Facility Building and Structure Preventive Maintenance
CH--I-OP-012	0	7/3/2007	Drum Out Station Glove Change Out
CM--M-EN-001	2	3/20/2007	Miscellaneous Waste Management Manual
CM--A-EG-004	8	3/15/2007	Safety Significant Structures, Systems and Components
LL--A-OP-007	3	3/14/2007	Mixed Low Level Waste/Low Level Waste Process Control Program
CM--P-AD-068	1	7/25/2007	Foreign Travel Authorization
CM--P-AD-067	0	4/24/2007	Requirements Management

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CH--P-OP-030	2	5/4/2006	Visual Examination in Lieu of Radiography
CH--P-OP-022	5	2/14/2007	Non-Compliant Containers
LL--A-OP-009	2	2/14/2007	Mixed Low Level Waste/Low Level Waste Characterization Plan
CH--L-OP-009	1	1/11/2007	Water Mist System Operability, Surveillance, and Maintenance
CH--I-OP-007	0	4/9/2007	BBA Glove Box Processing Flowchart
CH--L-OP-008	1	1/11/2007	Contact Handled Waste Glovebox Fire Control
CM--P-PA-001	0	5/10/2007	Performance Measures
CM--P-AD-069	0	3/7/2007	Personal Property Management and Control Program
CM--A-AD-019	0	5/15/2007	Performance Assurance Program Plan
CM--P-AD-066	0	3/28/2007	Site Access and Identity Verification
CM--P-AD-065	0	5/1/2007	TWPC Software Quality Assurance
GB--R-EG-002	0	1/23/2007	GB/BBA Pass Through Adjustment / Acceptance Report
CH--L-OP-029	1	4/11/2007	DSA/TSR Change Summary - Operations Continuing Training 2006-10-- SUSPENDED--
CM--L-AD-017	2	4/11/2007	General Employee Training Addendum # 1---(TWPC Substance Abuse, Employee Assistance, and Reporting Fraud, Waste and Abuse Policy)--SUSPENDED--
CM--L-OP-006	1	4/11/2007	Operations Continuing Training, 2006-06, Surface Contamination Only (SCO) Transportation Requirements--SUSPENDED
CM--P-AD-070	0	3/13/2007	Material Stores
CH--P-OP-008	3	11/15/2006	BBA and GB DP Requirements/Ventilation
CH--L-OP-024	0	2/12/2007	Control of Waste Drum Movement (MoveControl Training)
CM--L-IS-012	0	12/2/2006	Hyster H360-HD Fork Truck Training
CH--P-AD-045	0	2/19/2007	Waste Program Data Validation
UT--P-OP-502	7	11/30/2006	Plant and Instrument Air System
CM--P-EN-003	0	7/3/2007	Chemical Management
CM--P-PC-002	1	11/28/2006	Procurement of Items and Services

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CM--L-IS-013	1	3/15/2007	Utility Vehicle Safety
CM--P-MT-900	0	11/21/2006	EarthWork and Excavation
GB--I-OP-001	0	1/3/2007	GB/BBA Pass through Adjustment/ Acceptance Instructions Approval
CM--I-PC-002	1	11/8/2006	Using P-Cards
CH--I-OP-006	0	11/16/2006	Foam Fill Test Work Instruction
CM--A-MT-003	7	11/6/2006	Corrective Maintenance Plan
CM--P-OP-012	2	11/1/2006	Employee Notification System
CM--L-AD-016	0	11/14/2006	Maintaining a Safe & Drug Free Workplace for Management
LL--L-OP-002	0	2/19/2007	Waste Package Certifier Training
CM--L-IS-011	0	12/5/2006	Bloodborne PathogenS Training
CM--I-IH-101	0	5/21/2007	Air Sampling for Beryllium
CM--P-AD-027	8	10/24/2006	Personnel Qualification and Training
LL--A-QP-001	4	2/13/2007	Quality Assurance Plan (QAP) for Certification & Acceptance of Mixed Low Level Waste/Low Level Waste at the Nevada Test Site
CM--I-AD-003	1	2/8/2007	Document Numbering System
CM--L-EN-004	0	2/6/2007	RCRA Macroencapsulation Treatment & General Permit Conditions Training. (Operations Continuing Training 2007-01
CM--I-OP-014	1	1/31/2007	Surface Contaminated Objects Work Instructions
CH--I-OP-008	0	2/19/2007	Tramex Column Cutting & Sizing
CH--L-OP-025	0	2/12/2007	Waste Inventory Tracking System
CM--I-IH-201	0	5/21/2007	Surface Wipe Sampling for Beryllium
CM--A-AD-008	6	12/5/2006	Site Access Plan
CH--R-OP-008	0	1/29/2007	Foam Test Report, (Test Date: November 17, 2006)
CH--L-OP-027	1	1/3/2007	Macroencapsulation OJT Instructor Guide
CH--R-OP-007	0	3/6/2007	Surface Contaminated Object (SCO) - Low Level Waste (LLW), Worksheets, Verification and Validation Document
CM--L-OP-008	0	12/13/2006	Occurrence Reporting Training

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CH--L-OP-028	0	1/11/2007	Macroencapsulation OJT Guide - Operations Continuing Training 2006-09
CH--L-OP-026	0	12/20/2006	Macroencapsulation Orientation Training - Operations Continuing Training 2006-08
CH--P-OP-037	2	3/15/2007	Diesel Fuel Receipt
CM--A-AD-017	0	8/30/2007	Nuclear Criticality Safety Program

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CCP/TRU Waste Processing Center
Oak Ridge National Laboratory
Interface Document

CCP-PO-027

Revision 0

CCP/TRU Waste Processing Center/Oakridge National Laboratory Interface Document

EFFECTIVE DATE: 10/02/2007

D.K. Ploetz

PRINTED NAME

APPROVED FOR USE

RECORD OF REVISION

Revision Number	Date Approved	Description of Revision
0	10/02/2007	Initial issue.

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1.0 PURPOSE

The Central Characterization Project (CCP) is a mobile program designed to characterize, certify, and transport Transuranic (TRU) waste from various U.S. Department of Energy (DOE) sites to the Waste Isolation Pilot Plant (WIPP) in New Mexico. The CCP is operated by Washington TRU Solutions (WTS), at the direction of the DOE Carlsbad Field Office (CBFO).

CBFO has deployed the CCP to the TRU Waste Processing Center (TWPC), located on the Oakridge National Laboratory (ORNL). CCP has been deployed to this site to process both the legacy contact handled (CH) and remote-handled (RH) TRU waste. The Oak Ridge Operations Office (ORO) manages all activities at the ORNL, including waste management, for the DOE.

This document defines the interfaces between the CCP and the Host facility organization(s) necessary to perform this work. This document is intended to clarify and expand on details contained in the Inter-Entity Work Order (IEWO) with its associated upper tier Statement of Work (SOW) and program documents. It is not intended to be used in lieu of a task-specific subcontract.

CCP has primary responsibility for TRU waste characterization activities. CCP services include compilation, reporting, and confirmation of Acceptable Knowledge (AK), Nondestructive Examination (NDE), Nondestructive Assay (NDA), Radiological Characterization (RC), Headspace Gas (HSG) sampling and analysis, Visual Examination (VE), HSG for transportation, data validation and verification, waste certification, WIPP Waste Information System (WWIS) data entry, and transportation activities.

In providing these services, CCP may opt to use other CBFO-certified TRU programs. An example is the Idaho National Laboratory (INL) Environmental Chemistry Laboratory (ECL) for HSG analysis. CCP will accept batch data reports (BDRs) validated through the data generation level (DGL) from these other certified programs, and perform all project office activities in accordance with the CCP program.

These services will be performed with CCP and/or Host facility equipment with appropriate DOE/CBFO-certified procedures. All services provided by CCP will comply with DOE/WIPP-02-3122, *Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant (WAC)*, DOE/WIPP-02-3214, *Remote Handled TRU Waste Characterization Program Implementation Plan (RHPIP)*, *Contact Handled and Remote Handled Transuranic Waste Authorized Methods for Payload Control* and NM 4890139088-TSDF, *Waste Isolation Pilot Plant Hazardous Waste Facility Permit (HWFP)*, requirements, including those pertaining to waste disposal and transportation. This work will be performed under a DOE/CBFO-certified quality assurance (QA) program that meets the requirements defined in DOE/CBFO 94-1012, *U.S. Department of Energy Carlsbad Field Office Quality Assurance Program Document (QAPD)*.

CCP will also support TWPC in their mission to dispose of Low Level and Low Level Mixed waste (LLW/LLMW). This support will be primarily in providing NDE and NDA data for LLW/LLMW waste containers. CCP will work with the TWPC to ensure that the data meets the requirements for TWPC to ship the LLW/LLMW to the Nevada Test Site (NTS).

The Host facility may augment CCP characterization efforts as requested by CCP. Where required, all augmented services provided by the Host facility shall comply with CCP-certified procedures.

The Host facility has primary responsibility for assuring that requirements for safety, (including Radiological Control, Emergency Management, Industrial Safety, and Industrial Hygiene [IS&H]) security, safety basis, environmental permits, and other areas are met for CCP activities, and that CCP activities support the scheduled objectives.

Throughout this document the Host facility Management and Operating (M&O) Contractors' responsibilities are limited to the specific CCP activities being conducted within their facilities.

The CCP will certify DOE TRU waste at the ORNL for disposal in accordance with the certification authority that has been granted by the DOE/CBFO.

This document addresses specific requirements for the following areas:

- Training and qualification
- Container management
- Deficiencies and nonconformances
- VE
- Thermal conditioning unit (TCU)
- NDA
- RC (including sampling and analysis, if required)
- NDE
- HSG sampling and SUMMA[®] analysis
- HSG on-line analysis for transportation requirements
- Performance Demonstration Program (PDP)

- Source control
- AK
- Data validation and reconciliation
- Measuring and Test Equipment (M&TE)
- Work standards
- QA
- Project Control
- Procedures
- Document Transmittals
- Procurements
- Records
- TRU Waste Certification and WWIS data entry
- Transportation
- Configuration Management

The Host facility will report conditions or concerns that have or may have safety, health, QA, security, and operational or environmental implications to the DOE Oakridge Operations Office (ORO). CCP shall report their similar issues to the Host facility and to DOE/CBFO.

2.0 REQUIREMENTS

This document implements the applicable requirements of the following:

- CCP-PO-001, *CCP Transuranic Waste Characterization Quality Assurance Project Plan*
- CCP-PO-002, *CCP Transuranic Waste Certification Plan*
- CCP-PO-003, *CCP Transuranic Authorized Methods for Payload Control (CCP CH-TRAMPAC)*
- CCP-PO-505, *CCP Remote-Handled Transuranic Waste Authorized Methods for Payload Control (CCP RH-TRAMPAC)*

3.0 RESPONSIBILITIES

3.1 Initial Setup

3.1.1 CCP is responsible for the following during initial setup:

- [A] Providing information and procedures to the Host facility Site Technical Representative (STR)/Designee, who will coordinate facility, QA, and Environmental Safety & Health (ES&H) reviews to determine satisfactory compliance with Host facility safety basis requirements, RC requirements, and other safety and operational requirements.
- [B] Completing readiness activities as needed to support authorization of CCP activities at the Host facility.
- [C] Providing project support to complete administrative reviews and approvals of technical and administrative procedures or processes.
- [D] Mobilization of project staff.

3.2 Operations

3.2.1 CCP is responsible for the following activities to support start-up operations:

- [A] Performing system start-up and calibration of characterization equipment at the Host facility.
- [B] Participating successfully in the PDP, as needed.
- [C] Performing safety walk-downs, management, and laboratory assessments prior to operation.
- [D] Responding to and resolving assessment and surveillance findings for CCP start-up activities.
- [E] Ensuring CCP and Host facility personnel are trained and qualified in accordance with the requirements specified in Section 4.1.
- [F] Successful completion of DOE/CBFO Certification Audit.

- [G] Provides container tracking support for the containers introduced into characterization activities to ensure characterization completion using the CCP container management system.

3.2.2 The Host facility provides the following support for CCP activities:

- [A] Radiological controls as needed to support characterization activities, including:
 - Radiological postings.
 - Radiation protection surveys, both initial and routine, on characterization equipment and provide approved survey reports to the CCP Site Project Manager (SPM) as required.
 - Personnel dosimetry.
 - Dose assessments and dosimetry reports.
 - Calibrated and source checked survey instrumentation, as required.
 - Radiological Work Permits (RWP) to support CCP activities, as required.
 - Bioassay sample collection, evaluation, and reports. The CCP ORNL Project Manager or CCP Vendor Project Manager (VPM) will be notified of any positive bioassay results as soon as is reasonably possible.
 - Radiological source controls.
- [B] Provides adequate heated storage space to be used as a TCU as needed for HSG sampling.
- [C] Provides adequate facilities for the safe performance of Visual Examination (VE) and HSG Sampling.
- [D] Provides site-specific training, as needed, to ensure safe operations within the Host facility.
- [E] Provides IS&H support, as needed.
- [F] Provides Fire Protection and Emergency Management support, as needed.

- [G] Provides Authorization Basis (AB) oversight, including Unreviewed Safety Question (USQ) evaluations.
- [H] Provides environmental impact oversight and support, as needed.
- [I] Provides on-site container transportation.
- [J] Provides container handling, inventory control, and storage location tracking using the TWPC Container Tracking system.
- [K] Provides personnel to be trained and qualified under the CCP program as needed to support CCP activities such as VE, HSG sampling, and records management.
- [L] Performs document classification reviews as required to allow the public release of documents such as the AK Summary Report.
- [M] Provides calibrated M&TE for use in characterization or obtains calibration service for CCP provided M&TE.
- [N] Provides waste packaging materials and other equipment/materials purchased and inspected in accordance with the Qualified Supplier List (QSL) approved program.
- [O] Provides hazardous waste manifesting, bill of lading, and notifications for transportation.

3.3 CCP Site Project Manager (SPM)

- 3.3.1 Functions as CCP's primary interface and point-of-contact between CCP and the Host facility for all waste characterization and certification activities.
- 3.3.2 Ensures CCP and Host facility personnel are trained and qualified to perform WIPP-compliant TRU waste characterization activities at the Host facility prior to commencement of work activities.
- 3.3.3 Confirms sufficient characterization equipment is available to perform the required characterization activities at the Host facility.
- 3.3.4 Provides the AK Summary Report for DOE waste characterized by the CCP to the Host facility STR/Designee.

- 3.3.5 Works in conjunction with Host facility operations to establish and maintain reasonable and appropriate throughput of waste containers.
- 3.3.6 Ensures that project level verification and validation of BDRs are completed.
- 3.3.7 Provides evidence to the Host facility STR/Designee of PDP participation and successful completion.
- 3.3.8 Provides status on CCP characterization operations to the Host facility STR/Designee.
- 3.4 CCP Quality Assurance (QA) Engineer
 - 3.4.1 Functions as CCP's primary interface and point-of-contact for QA matters between CCP, Host facility, DOE/ORNL, and DOE/CBFO.
 - 3.4.2 Validates the Nonconformance Reports (NCRs) generated by CCP personnel performing characterization activities at the Host facility.
 - 3.4.3 Provides copies of NCRs for information to the Host facility STR/Designee as requested.
 - 3.4.4 Ensures that NCRs are dispositioned in a timely manner in accordance with CCP-QP-005, *CCP TRU Nonconforming Item Reporting, and Control*.
 - 3.4.5 Ensures receipt inspection in accordance with CCP-QP-026, *CCP Inspection Control*, of items and services procured by CCP is performed.
 - 3.4.6 Provides the Host facility STR/Designee with a copy of the semi-annual trending summary reports in accordance with CCP-QP-014, *CCP Data Analysis and Trending*.
- 3.5 Host Facility Subcontract Technical Representative (STR)/Designee (Host Facility Management Position)
 - 3.5.1 Functions as the Host facility primary interface and point-of-contact between the Host facility and CCP.
 - 3.5.2 Ensures any USQs that may be needed for proposed modifications to CCP hardware, software, or procedures are prepared and approved by the appropriately qualified Host facility personnel prior to CCP implementing the proposed modification.

- 3.5.3 Ensures needed site infrastructure support (e.g., Radiological, IS&H) is available for waste characterization.
 - 3.5.4 Ensures documentation of completed Host facility-specific training is delivered to the CCP SPM.
 - 3.5.5 Coordinates review, provides comments, and approves comment resolutions on procedures listed in Section 4.18.3 for the purpose of ensuring facility safety requirements are met.
 - 3.5.6 Provides local personnel to support characterization operations such as VE, HSG sampling, flammable gas analysis, and characterization records management. Also provides personnel to support the CCP AK Experts (AKE) in the collection of required documents and procedures as needed.
 - 3.5.7 Ensures that periodic QA surveillances of CCP operations by the Host facility are conducted and reported to CCP.
 - 3.5.8 Distributes the CCP documents listed in Section 4.18.3 to Host facility reviewers as required by the Host facility administrative controls.
 - 3.5.9 Reviews and concurs on documents in Section 4.18.3 in accordance with CCP-QP-010, *CCP Document Preparation, Approval and Control*.
 - 3.5.10 Provides facilities, construction services, utilities, phone services, office services, and supplies as defined by the respective CCP and TWPC contracts with DOE.
- 3.6 CCP Vendor Project Manager (VPM)
- 3.6.1 Monitors the List of Qualified Individuals (LOQI) daily to confirm that only qualified personnel perform waste characterization activities.
 - 3.6.2 Functions as CCP's primary interface and point-of-contact between CCP and the Host facility STR/Designee for characterization field operations.
 - 3.6.3 Provides daily pre-operations briefing. The daily pre-operations briefing may be combined with the Host facility's pre-operations briefing as agreed between the CCP TWPC Project Manager and Host facility operations management.

- 3.6.4 Ensures that in-process documents and the documents listed in Section 4.19.2 are transmitted to the CCP Project Office as soon as practicable in accordance with CCP-QP-008, *CCP Records Management*.
- 3.6.5 Ensures applicable manufacturers MSDSs are provided, maintained, and available to support operations and meet the requirements of the TWPC chemicals management program.
- 3.6.6 Provides oversight of field operations to ensure safe, efficient operations.
- 3.6.7 Supervises day-to-day waste characterization activities.
- 3.6.8 Notifies the CCP Manager and the Host facility Facility Manager/Operations Manager of any abnormal events associated with safe operation of CCP characterization activities for reporting purposes.

4.0 INTERFACE

4.1 Training and Qualification

- 4.1.1 CCP personnel or Host facility personnel who perform work under CCP procedures will be trained and qualified to WIPP requirements in accordance with CCP-QP-002, *CCP Training and Qualification Plan*.
- 4.1.2 Administrative work, such as BDR reviews that require no access to characterization activities or processes, may be completed by personnel who have not completed the Host facility required site-specific training. Personnel who have not completed Host facility required site-specific training will not be allowed unescorted access to the characterization activities.
- 4.1.3 CCP and Host facility personnel assigned to field operations must complete the Host facility required site-specific training. The STR will provide the CCP SPM, in writing, a listing of the Host facility required site-specific training for each CCP position.
- 4.1.4 Both the CCP training and Host facility required site-specific training must be completed prior to the individual being assigned to perform independent work at the Host facility.
- 4.1.5 A LOQI will be monitored by the CCP VPM to confirm CCP and Host facility personnel assigned to CCP to perform work are in compliance.

4.2 Container Management

- 4.2.1 The Host facility is responsible for container movement, storage, and DSA compliance.
- 4.2.2 The Host facility provides the dose rate and surface contamination information necessary to certify TRU waste containers for disposal.
- 4.2.3 CCP is responsible for container management throughout the CCP characterization process. CCP will perform container management in accordance with CCP-TP-068, *CCP Container Management at the Idaho National Laboratory (INL) and TRU Waste Processing Center (TWPC)* or CCP-TP-509, *CCP RH Transuranic Container Management*.

- 4.2.4 CCP AK personnel will maintain a list of characterization-eligible containers from each waste stream identified. When repackaging or VE of a waste container is required, the following container ID scheme will be followed as applicable.
- [A] When the waste from one TRU input container results in one TRU output container, the container ID from the input container is to be used with the addition of an "A" suffix as the ID number on the output container (e.g., input container is X10C0057, the output container will be labeled as X10C0057A). This scheme is also to be applied to re-label waste containers that do not require repackaging or VE.
 - [B] When the waste from one TRU input container results in the creation of two or more TRU output containers, a standard convention of adding a sequential single or, if required, double letter suffix to the input container's ID number is used to label the TRU output containers produced (e.g., input container is X10C0057, the first output container is X10C0057A, and the second output container is X10C0057B).
 - [C] When the waste from two or more TRU input containers from the same waste stream are combined into one output container, the container ID number from the first input container is used with the addition of an "A" suffix as the ID number on the TRU output container (e.g., X10C0057 and X10C0059 are combined into one output container. X10C0059 was the first drum repackaged. The output container is X10C0059A).
 - [D] When prohibited items are segregated and placed into a separate output container from the bulk of the waste, a new container ID is applied to the segregated waste container. Prohibited items from more than one input waste container may be placed into the segregated waste container provided the input containers are from the same waste stream.
 - [E] CCP AK personnel are to be notified as soon as is practical of waste container ID number changes resulting from the actions in steps 4.2.4[A] through [D].

4.3 Deficiencies and Nonconformances

4.3.1 CCP-Identified Deficiencies and Nonconformances

NOTE

The CCP QA Engineer will confirm appropriate closure of the deficiencies that are resolved by CCP.

- [A] If CCP personnel identify a nonconformance condition associated with a waste container during the CCP characterization or certification process, CCP personnel will initiate an NCR in accordance with CCP-QP-005.
- [B] If the deficiency or nonconformance is an issue that will be resolved by CCP, CCP will provide notification (e.g., verbal, or e-mail as required by the Host facility) to the Host facility STR/Designee. The Host facility STR/Designee may request any supporting documentation needed by the Host facility. CCP will ensure appropriate closure of the deficiency. A copy of any CCP NCR related to DOE TRU waste at the TWPC will be provided to the Host facility STR/Designee upon request.
- [C] If the deficiency or nonconformance cannot be resolved by the CCP (e.g., does not meet TRU waste acceptance criteria), then the specific container will be returned with all required documentation to the Host facility for disposition. Once the specific container(s) have been returned to the Host facility, the NCR will remain open if the container will be remediated and returned to CCP or will be closed if the condition is such that the container will not be returned to CCP (e.g., NDA indicates the container is less than 100 nanocuries per gram [nCi/g] TRU alpha activity concentration). CCP shall return nonconforming waste containers to the Host facility with the CCP HOLD TAG applied. The Host facility may remove CCP HOLD TAGS from those containers which are returned as permanent rejects from CCP.
- [D] CCP personnel will immediately notify the CCP VPM of any abnormal event associated with the safe operation of CCP characterization activities. The CCP VPM will notify the CCP Manager and the Host facility Facility Manager/Operations Manager of the abnormal event.

4.3.2 Host Facility-Identified Deficiencies and Nonconformances

- [A] Deficiencies or nonconformances identified by the Host facility during this project which affect waste characterization or certification activities shall be promptly identified to the CCP VPM, who will initiate an NCR in accordance with the existing CCP deficiency reporting process in accordance with CCP-QP-005.

4.4 Visual Examination (VE)

- 4.4.1 CCP will conduct VE Operations in accordance with CCP-TP-113, *CCP Standard Waste Visual Examination (CH)* or CCP-TP-500, *CCP Remote-Handled Visual Examination Technique* using a facility provided by the Host facility.
- 4.4.2 The Host facility will be responsible for all maintenance and repairs to the VE facility.
- 4.4.3 The host facility will provide personnel to qualify and perform VE in accordance with CCP-TP-113 or CCP-TP-500.

4.5 Nondestructive Examination (NDE)

- 4.5.1 CCP will perform NDE using a CCP-provided unit. Containers rejected by NDE will be dispositioned consistent with the requirements of Section 4.3.
- 4.5.2 CCP may perform screening services using a CCP provided unit. Screening services performed prior to the implementation of CCP procedures will be in accordance with T-CH-252-P-OP-201, *Radiography Screening for Prohibited Items*. CCP will provide a screening data package containing the data necessary to support the TWPC mission to dispose of LLW/MLLW. Prohibited items identified during screening operations will be clearly documented on the screening report. A copy of the screening report will be provided to the CHSA Waste Operator for each drum screened. In addition, the RTR Operator will provide a still picture of a prohibited item, if identified, with the screening report if possible. Following the implementation of CCP procedures, CCP-TP-066, *CCP Radiography Screening Procedure for Prohibited Items*, will be used for any screening operations. NDE data packages prepared under T-CH-252-P-OP-201 will be submitted to TWPC Records Management for verification and validation.
- 4.5.3 The Host facility is to support the CCP VPM with the construction of NDE capability demonstration drums as required.

4.6 Nondestructive Assay (NDA)

- 4.6.1 The Host facility will provide support for CCP participation in the PDP. This support includes preparation of the test drums, delivery and pick-up of the drums to/from the CCP NDA equipment, and responsibility for PDP source control.
- 4.6.2 CCP will perform NDA using a CCP-provided unit or multiple units as required. Containers rejected by NDA will be dispositioned consistent with the requirements of Section 4.3.
- 4.6.3 CCP will provide NDA screening services and data packages containing the data necessary to support the TWPC mission to dispose of the LLW/MLLW. This service may be in the form of a drum assay or review of generator data where available. NDA data packages prepared under T-CH-252-P-OP-100, *DWAS IPAN Operation and Data Validation*, will be submitted to TWPC Records Management for verification and validation.
- 4.6.4 CCP may provide validated BDRs to the TWPC for disposal of LLW/MLLW from the certified program.

4.7 Radiological Characterization (RC)

- 4.7.1 The Host Facility will provide technical support for RC efforts based on the use of AK for stored RH TRU waste or sampling and analysis.
- 4.7.2 CCP will provide qualified personnel, including Host facility personnel, to perform RC activities.
- 4.7.3 The Host facility will provide support to the CCP for performing calibration of RC instrumentation. This support includes delivery of surrogate drums and source control as needed.

4.8 Headspace Gas (HSG) Sampling and Analysis

- 4.8.1 CCP will perform HSG sampling and analysis using SUMMA[®] canister HSG sampling with analysis of the samples performed in an off-site certified laboratory. In addition, CCP performs HSG and Analysis using a GC/MS with Thermal Conductivity Detector (TCD) for flammable gas analysis to meet transportation requirements.

- 4.8.2 The Host facility may supply personnel to qualify and perform HSG sampling in accordance with CCP-TP-093. The Host facility will provide personnel and support to ship SUMMA sample canisters to a CBFO-certified TRU waste program for analysis.
 - 4.8.3 The Host facility will provide a temperature-controlled environment (i.e., TCU) 18°C (65°F) or greater to equilibrate waste containers for a minimum of 72 hours prior to HSG sampling. The temperature must be maintained until the container is sampled.
 - 4.8.4 Either the Host facility or CCP may provide the calibrated instrumentation needed to monitor the temperature requirements with documentation provided.
 - 4.8.5 CCP will be responsible to replace the filter vent as needed to support HSG sampling or transportation
 - 4.8.6 CCP may use a separate CBFO-certified TRU Waste Program to perform HSG analysis. This separate program will provide documentation required to meet the requirements of CCP-PO-002, *CCP Transuranic Waste Certification Plan*.
 - 4.8.7 CCP will vent waste containers using a CCP-provided drum venting system. The primary purpose of this activity is to vent 55-gallon drums containing 30-gallon unvented drums. Other waste containers may be vented in this system as agreed upon between the Host facility and CCP.
 - 4.8.8 The Host facility will provide filters from the CBFO-approved transportation filter list for use in the drum venting system.
 - 4.8.9 The Host facility will provide radiological control support for the operation of this system.
- 4.9 Source Control
- 4.9.1 CCP will provide a list of Special Nuclear Materials (SNM) reference sources required for calibration of CCP-furnished systems.
 - 4.9.2 The Host facility will be responsible for all non-SNM reference sources. Responsibilities consist of inventory control, storage, shipment and usage. The Host facility will provide CCP the number of sources, location, isotopic distribution with activity levels, and the names of the custodian and authorized users, as required.

- 4.9.3 The Host facility will be responsible for providing radiological control support associated with the non-SNM reference sources. This support consists of maintaining the radioactive materials area (RMA) postings, periodic surveys and performing a semi-annual leak check on the sources as requested by CCP.
- 4.9.4 The Host facility will be responsible for all SNM reference sources. Responsibilities consist of: inventory control, storage, inspection and handling. The Host facility, as custodian of SNM sources, will provide to CCP the necessary sources. Host facility personnel will load the sources into the matrix drums as requested by CCP. CCP personnel will be trained as users of the sources to the Host facility procedures.
- 4.9.5 The Host facility will provide support for the CCP participation in the PDP. This support includes maintaining trained PDP coordinators, preparation of the test drums, delivery and pick-up of the drums to/from the CCP NDA equipment, and responsibility for PDP source control. Host facility support will be coordinated by the Host facility STR/Designee.
- 4.10 Acceptable Knowledge (AK)
- 4.10.1 CCP records personnel will maintain the auditable AK record necessary to support the AK Summary Report in accordance with the HWFP, Attachment B, *Waste Acceptance Plan (WAP)*, RHPIP, and the QAPD.
- 4.10.2 CCP AK personnel will perform and document the AK collection, reporting, and confirmation in accordance with CCP-TP-005, *CCP Acceptable Knowledge Documentation* and/or the RHPIP. CCP shall submit the AK Summary Report for Host facility review and concurrence. As warranted, the Host facility STR/Designee will provide written comments. Upon satisfactory disposition of comments, the Host facility STR/Designee will provide written concurrence of the AK Summary Report.
- 4.10.3 Host facility personnel will assist CCP AK personnel in support of AK compilation, confirmation, discrepancy resolution, or AK reassessment of source documents.
- 4.11 Data Validation and Reconciliation
- 4.11.1 Wherever CCP has obtained the services of another CBFO-certified TRU Waste Program, that program will provide BDRs completed through DGL reviews to CCP in accordance with their own programmatic documents.

4.11.2 CCP will provide project level validated data packages for NDE, NDA, VE, RC, and HSG sampling and analysis.

4.11.3 The CCP SPM, and AKE will perform data reconciliation with applicable data quality objectives (QAOs) using CCP-TP-002, *CCP Reconciliation of DQOs and Reporting Characterization Data*, and CCP-TP-506, *CCP Preparation of the Remote-Handled Transuranic Waste Acceptable Knowledge Characterization Reconciliation Report*.

4.12 Measuring and Test Equipment (M&TE)

4.12.1 The Host facility will make available National Institute for Standards and Technology (NIST)-traceable calibration services for M&TE to the CCP. The Host facility will maintain records on M&TE calibration in accordance with the Records Inventory and Disposition Schedule (RIDS). Copies of the Certificates of Calibration will be provided to the CCP VPM and CCP M&TE Custodian.

4.12.2 The Host facility STR/Designee will make calibration documentation and processes accessible as needed for internal and external audits.

4.12.3 The CCP VPM notifies the Host facility STR anytime a new piece of M&TE equipment is purchased by CCP that requires calibration. This notification is made by email.

4.13 Work Standards

NOTE

The focus of Section 4.13 is to adequately protect the workers on the equipment at the various facilities.

4.13.1 CCP operations personnel will work under the Host facility Lockout/Tagout procedure.

4.13.2 CCP and Host facility-provided personnel will perform quality-affecting work under CCP procedures for TRU waste characterization and certification activities. Host facility procedures and work packages will be used for non-waste characterization activities (e.g., equipment repairs).

4.13.3 CCP operations personnel will operate in accordance with CCP-PO-005, *CCP Conduct of Operations*.

- 4.13.4 CCP operations personnel will comply with Host facility procedures as they apply to the retrieval area and other established characterization areas.
- 4.13.5 CCP personnel will work under the Host facility safety basis and work control standards (e.g., General Employee Radiological Training [GERT]). Maintenance work control activities on Host facility-supplied equipment will be controlled using Host facility work authorization procedures.
- 4.13.6 As outlined in CCP-PO-005, it is the responsibility of the CCP VPM to maintain equipment configuration and authorize equipment changes to ensure that Mobile Characterization Equipment (MCE) systems are operated and maintained in accordance with the Host facility safety basis. The VPM will not authorize a change to any MCE until steps 4.13.6 [A] and [B] have occurred:
- [A] The CCP ORNL Project Manager has completed, signed, and dated Section E of CCP-CM-001, *CCP Equipment Change Authorization and Documentation*, Attachment 1, CCP Characterization Equipment Change Authorization.
 - [B] The Host facility STR/Designee must concur with the proposed change in writing (CCP-CM-001, Attachment 1) and provide a copy of the approved USQ, if required. The Host facility STR/Designee will coordinate the review of the proposed change to ensure AB and Permitting requirements are met.
 - [C] Once the existing waste characterization equipment has been turned over to CCP for operation, no change to the configuration will be approved by the Host facility without CCP's concurrence in writing from the CCP VPM. This may be accomplished by e-mail.
- 4.13.7 CCP personnel will participate in the Host facility bioassay program. CCP personnel involved in VE of waste will provide routine samples at a frequency agreed upon between the Host facility and WTS Radiological Safety organization. All other CCP personnel will provide samples as requested under the routine/random program established by the Host facility. All CCP personnel will submit the bioassay samples required to establish a baseline for activities at the Host facility.

- 4.13.8 The CCP Manager or VPM will notify the Host facility STR when new CCP personnel, WTS and subcontractors are assigned to work at the TWPC. The CCP Manager or CCP VPM will notify the Host facility STR when CCP personnel, WTS and subcontractors leave the TWPC as a result of reassignment or resignation. This notification will occur as soon as is practical. The Host facility STR will notify affected organizations to support the arrival or departure of CCP personnel.
- 4.13.9 The CCP Manager or CCP VPM will be notified if any bioassay sample provided by CCP personnel indicates that an uptake of any radioactive isotopes may have occurred as soon as is reasonably possible.
- 4.13.10 Host facility Radiological Controls personnel will perform routine surveys for contamination and radiation as specified in Host facility policies or procedures. The CCP Manager or CCP VPM and appropriate Host facility management personnel will be notified immediately upon the discovery of any loose surface contamination in any CCP-occupied buildings or any of the CCP characterization equipment contained in these buildings. Access to and copies of routine survey results will be made available to CCP upon request.
- 4.13.11 The Host facility will immediately notify the CCP TWPC Project Manager or CCP VPM and appropriate Host facility management personnel of any abnormal continuous or fixed air sample filter analysis results from any area routinely occupied by CCP personnel.
- 4.13.12 CCP will provide historical information on the operation of any CCP equipment deployed at the Host facility for the purpose of lessons learned and the implementation of any mitigating actions from these lessons learned.
- 4.13.13 For Host facility-supplied equipment and facilities, the Host facility is responsible for ensuring the safety basis is adequate to cover the equipment and facilities that are provided. For these instances the Host facility is the Design Authority. It is expected that CCP will participate in review of hazards analysis for this equipment and facilities being provided.

- 4.13.14 For non-Host facility-provided equipment, CCP will provide safety basis input for the Host facility's safety basis. CCP will be the Design Authority for the equipment. In addition, prior to any modification of equipment, these changes will be provided to the Host facility for review and incorporation into their safety basis documents and are subject to the CCP Configuration Management Program. The programmatic limits for the operation of the characterization equipment are the responsibility of CCP as part of their Design Authority responsibilities.
- 4.13.15 CCP will control the procurement, development, maintenance, configuration management and use of software used on all Host facility and non-Host facility-provided equipment used to develop quality-affecting data for waste characterization in accordance with CCP-QP-022.
- 4.13.16 The Host facility and WTS Radiological Safety organizations shall meet on a quarterly basis to discuss the status of radiological conditions and work practices in areas routinely occupied by CCP personnel. This requirement may be met by WTS Radiological Safety personnel visiting the Host facility or by teleconference as agreed to by these organizations. The WTS Radiological Safety organization will provide the CCP Manager and CCP ORNL Project Manager with a summary of the meeting including any issues that require resolution. This summary may be provided by e-mail.
- 4.14 TRU Waste Certification and WIPP Waste Information System (WWIS) Data Entry
- 4.14.1 CCP will prepare Waste Stream Profile Forms (WSPFs) for the subject Host facility waste in accordance with CCP-TP-002.
- 4.14.2 CCP will transmit characterization and certification data using the WWIS and CCP procedures CCP-TP-030, *CCP TRU Waste Certification and WWIS Data Entry (CH)* or CCP-TP-530, *CCP RH TRU Waste Certification and WWIS Data Entry (RH)*.
- 4.14.3 CCP shall submit WSPFs to the Host facility for information before submittal to CBFO. The Host facility will provide written concurrence on the basis of continued compliance with procedures and programs, and CBFO-certification of the CCP program.
- 4.14.4 The CCP Waste Certification Officials (WCO) will document and certify that all TRU waste payload containers meet the requirements of the WAC, and submit the data to the WWIS for approval.

4.15 Transportation

- 4.15.1 CCP Transportation is responsible for meeting all requirements for loading and shipping TRU waste certified by the CCP as approved in the WWIS.
- 4.15.2 CCP transportation will direct TWCP loading of containers into overpacks according to CCP WCO listings and will provide the CCP WCO with the necessary data to complete the process, if required.
- 4.15.3 The TWPC provides and signs on behalf of DOE the Uniform Hazardous Waste Manifest, bill of lading, notifications, and required markings, labels and placards for each TRU waste shipment.

4.16 Quality Assurance (QA)

- 4.16.1 All work performed in the completion of this waste characterization and certification scope will be in compliance with applicable DOE/CBFO-certified CCP procedures.
- 4.16.2 CCP will conduct periodic QA surveillances to assess compliance with applicable WIPP requirements.
- 4.16.3 The Host facility will conduct surveillances to assess compliance with applicable procedures.

4.17 Project Control

- 4.17.1 CCP and the Host facility will provide weekly status for their respective scheduled activities.
- 4.17.2 CCP will provide the Host facility with an up-to-date accrual schedule and estimates of completion at the end of each month, or as requested.
- 4.17.3 CCP will maintain and provide the Host facility with an up-to-date organization chart listing CCP personnel, along with associated roles and responsibilities.
- 4.17.4 CCP will provide the Host facility with invoices reflecting labor, material and supplies, subcontractor and travel cost.

4.17.5 CCP will provide timely cost estimates to the Host facility STR/Designee for any new CCP activities planned.

4.17.6 CCP will provide the Host facility STR/Designee actual cost data for each scheduled CCP Level 3 activity on a monthly basis.

4.18 Procedures

4.18.1 As defined in CCP-QP-010, editorial or minor changes may be made to all CCP documents except CCP-PO-001, CCP-PO-002 and CCP-PO-003, *CCP Transuranic Authorized Methods for Payload Control (CCP CH-TRAMPAC)* and CCP-QP-001, *CCP Graded Approach* without the same level of review and approval as the original document. CCP will process any required changes in accordance with CCP-QP-010.

4.18.2 New technical operating procedures (procedures that operate equipment) developed by the CCP and scheduled to be used at the host site, shall be evaluated by the Host facility STR/Designee to determine if the procedure shall be added to the Host facility review list provided in Section 4.18.3.

4.18.3 The following documents, and all revisions to these documents, will be provided to the Host facility STR/Designee for review:

- CCP AK Summary Reports
- CCP WSPFs
- CCP-HSP-011, *CCP Headspace Gas Drum Sampling Health and Safety Plan*
- CCP-PO-005, *CCP Conduct of Operations*
- CCP-PO-027, *CCP/ORNL Interface Document*
- CCP-CM-001, *CCP Equipment Change Authorization and Documentation*
- CCP-CM-026, *CCP Configuration Management Plan*
- CCP-TP-043, *CCP Chain of Custody for SUMMA Canister Sampling*
- CCP-TP-053, *CCP Standard Real-Time Radiography (RTR) Inspection Procedure*

- *CCP-TP-066, CCP Radiography Screening Procedure for Prohibited Items*
- *CCP-TP-068, CCP Container Management at the Idaho National Laboratory (INL) and TRU Waste Processing Center (TWPC)*
- *CCP-TP-082, CCP Preparing and Handling Waste Containers for Headspace Gas Sampling*
- *CCP-TP-093, CCP Sampling of TRU Waste Containers*
- *CCP-TP-113, CCP Standard Waste Visual Examination*
- *CCP-TP-165, CCP Real-Time Radiography #6 Operating Procedure*
- *CCP-TP-166, CCP Drum Waste Assay System Imaging Passive/Active Neutron Operations*
- *CCP-TP-167, CCP Drum Waste Assay Imaging Passive/Active Neutron Calibration*
- *CCP-TP-168, CCP Drum Waste Assay Imaging Passive/Active Neutron/Segmented Gamma Scanner Data Generation Level Validation*
- *CCP-TP-169, CCP Operating the Mobile Segmented Gamma Scanner*
- *CCP-TP-172, CCP Calibrating the Mobile Segmented Gamma Scanner*
- *CCP-TP-500, CCP Remote-Handled Waste Visual Examination*
- *CCP-TP-504, CCP Dose-to-Curie Survey Procedure for Remote-Handled Transuranic Waste*
- *CCP-TP-509, CCP RH Transuranic Container Management*

4.18.4 Other controlled documents used by CCP are available to the Host facility STR/Designee for information purposes at <ftp://q.wipp.ws/Controlled-Documents>.

4.18.5 The Host facility STR/Designee will review or designate the appropriate reviews of the CCP procedures listed in Section 4.18.3, and forward written comments to CCP Document Control in accordance with CCP-QP-010 for resolution.

4.18.6 The CCP SPM will confirm that the Host facility STR/Designee written comments are resolved with the Host facility STR/Designee concurrence prior to proceeding with CCP operations.

4.19 Document Transmittals

4.19.1 Documents listed in this section, which are provided from one organization to the other as information copies, may be transmitted via memo, fax, e-mail, or formal correspondence. Documents identified as QA records will be transmitted in accordance with CCP-QP-008.

4.19.2 Documents to be provided to the Host facility by CCP include:

- [A] Copies of NCRs and Corrective Action Requests (CARs), as applicable.
- [B] Copies of AK Summary Reports.
- [C] Copies of AK source documents and source document summaries, as requested.
- [D] Copies of semi-annual trending summary reports.
- [E] Copies of QA surveillance reports.
- [F] Copies of WSPFs.
- [G] Copies of VE, NDE, NDA and HSG data, as requested.
- [H] Copies of CCP Source/Receipt Inspection Verification Sheets and associated objective evidence for each shipment.
- [I] Information on chemical usage and copies of applicable MSDSs as requested for inventory or reporting reasons.
- [J] Copies of training requirements and associated training records for Host facility personnel supporting CCP.
- [K] A copy of the RIDS developed by CCP.

- [L] Results of all DOE/CBFO/New Mexico Environment Department (NMED)/U.S. Environmental Protection Agency (EPA) or other regulatory audit or compliance/enforcement actions that may impact its ability to characterize and transport TRU waste.
- [M] Copy of final data package to WIPP via WWIS, as requested.
- [N] Documented evidence of participating in and passing the CBFO PDP.
- [O] NMED and EPA approval of the CBFO Certification Audit Report.

4.19.3 Documents to be provided to CCP by Host facility include:

- [A] Documentation of required training.
- [B] Documentation of training completion for CCP and Host facility personnel for training received from the Host facility.
- [C] Copies of AK source documentation requested by CCP.
- [D] Radiological dose rate and surface contamination results on waste drums as needed to support WWIS data entry.
- [E] Radiological information as described in Section 3.2.2[A].
- [F] Copies of NCRs, deficiency reports, or other nonconformance documentation per Section 4.3.
- [G] Copies of the results of Host facility assessments pertaining to CCP.
- [H] Copies of calibration certifications.
- [I] Copies of QA surveillance reports.
- [J] Copies of the Uniform Hazardous Waste Manifest, bill of lading and Shipment Notifications.

4.20 Authorization Basis (AB) and Configuration Management

- 4.20.1 The Host site has primary responsibility to ensure that CCP equipment and processes have been appropriately considered within the DOE-approved, Host site documented safety analysis.

- 4.20.2 The Host site shall provide to CCP Host site generated AB documentation concerning CCP related activities and equipment, including USQ's, for CCP's review.
- 4.20.3 CCP has primary responsibility to control operations and equipment configurations to ensure compliance with Host site procedures that protect the personnel, public, and environment.
- 4.20.4 For CCP provided equipment, CCP will provide the documentation necessary for Host site to perform the evaluation against its safety analysis. This documentation may include health and safety plans, hazard assessments, system descriptions, equipment drawings, or other information deemed necessary through mutual agreement between CCP and the Host site.
- 4.20.5 For Host site provided equipment, CCP will review operational and AB documentation, including USQs, to ensure the safety of CCP personnel while operating the equipment.
- 4.20.6 All changes to Host site equipment operated by CCP will be controlled by the Host site Configuration Management and Work Control Program to ensure appropriate AB evaluations are conducted and associated controls are established
- 4.20.7 The Host site will submit all changes to AB requirements that affect CCP operations for review and concurrence by CCP prior to implementation.
- 4.21 Notification
- 4.21.1 The Host site has primary responsibility to notify CCP when there are changes in the Host site facilities used by CCP for characterization activities or changes that may impact operations
- 4.21.2 The Host site has primary responsibility to notify CCP when there are changes to the policies, processes, or procedures that may affect CCP characterization activities or operations.
- 4.21.3 CCP has primary responsibility to ensure changes to equipment are in accordance with CCP-CM-001, *CCP Equipment Change Authorization and Documentation*.

4.21.4 CCP has primary responsibility to notify the Host site when there are configuration changes to CCP or CCP vendor-owned equipment.

4.21.5 The Host site has primary responsibility to notify WTS/Retrieval, Characterization, and Transportation department (RCT) when repairs or modifications are made to transportation trailers or packaging equipment (TRUPACT-II, HalfPACTs, etc.). WTS/RCT will then notify the appropriate Cognizant Engineer at the WIPP site. The Cognizant Engineer will verify the modification. The Host site may be requested to make the repair or modification by WTS or CBFO if certified services are available. Otherwise, an off-site vendor will normally make needed repairs or modifications to the transportation trailers or packaging equipment.

4.22 Procurement

4.22.1 TWPC is shown as a supplier of procurement services on the WTS Qualified Suppliers List (QSL). TWPC may procure, inspect, and perform receipt inspection of whatever items are listed in the most current WTS QSL for the CCP scope of work. TWPC will perform these activities in accordance with its QSL-accepted program.

4.23 Occurrence Reporting and Processing System (ORPS) and Price-Anderson Amendments Act (PAAA)

4.23.1 Both TWPC and CCP maintain the responsibility for reporting potential PAAA issues resulting from waste certification or safe operation of characterization activities (e.g., Technical Safety Requirements, Radiation Safety, Industrial Safety, Industrial Hygiene, Maintenance, Lockout/Tagout, Conduct of Operations) of TRU waste by CCP at TWPC. This includes filing any Occurrence Reporting and Processing System (ORPS) reports resulting from the characterization activities of TRU waste by CCP.

4.23.2 Both TWPC and CCP shall invite the other to participate in the investigation of any waste characterization event that results in an ORPS or PAAA report.

4.23.3 Both TWPC and CCP shall support and participate in investigations when CCP characterization activities result in an ORPS or PAAA report.

5.0 RECORDS

- 5.1 Records generated during the performance of the waste characterization and certification scope are controlled by CCP.
- 5.2 QA records generated by CCP documents referenced in this interface document are maintained in accordance with CCP-QP-008.
- 5.3 All electronic and/or hard copy QA records generated by CCP documents referenced in this interface document shall be maintained by CCP at a TWPC location provided by the Host facility.
- 5.4 All QA records generated by CCP will be maintained and dispositioned in accordance with CCP-QP-008 and CCP-QP-028, *CCP Records Filing, Inventorying, Scheduling, and Dispositioning*.
- 5.5 The Host facility will maintain the following records in accordance with Host facility requirements. The list includes, but is not limited to, the following:
 - 5.5.1 MSDS
 - 5.5.2 Calibration Certifications

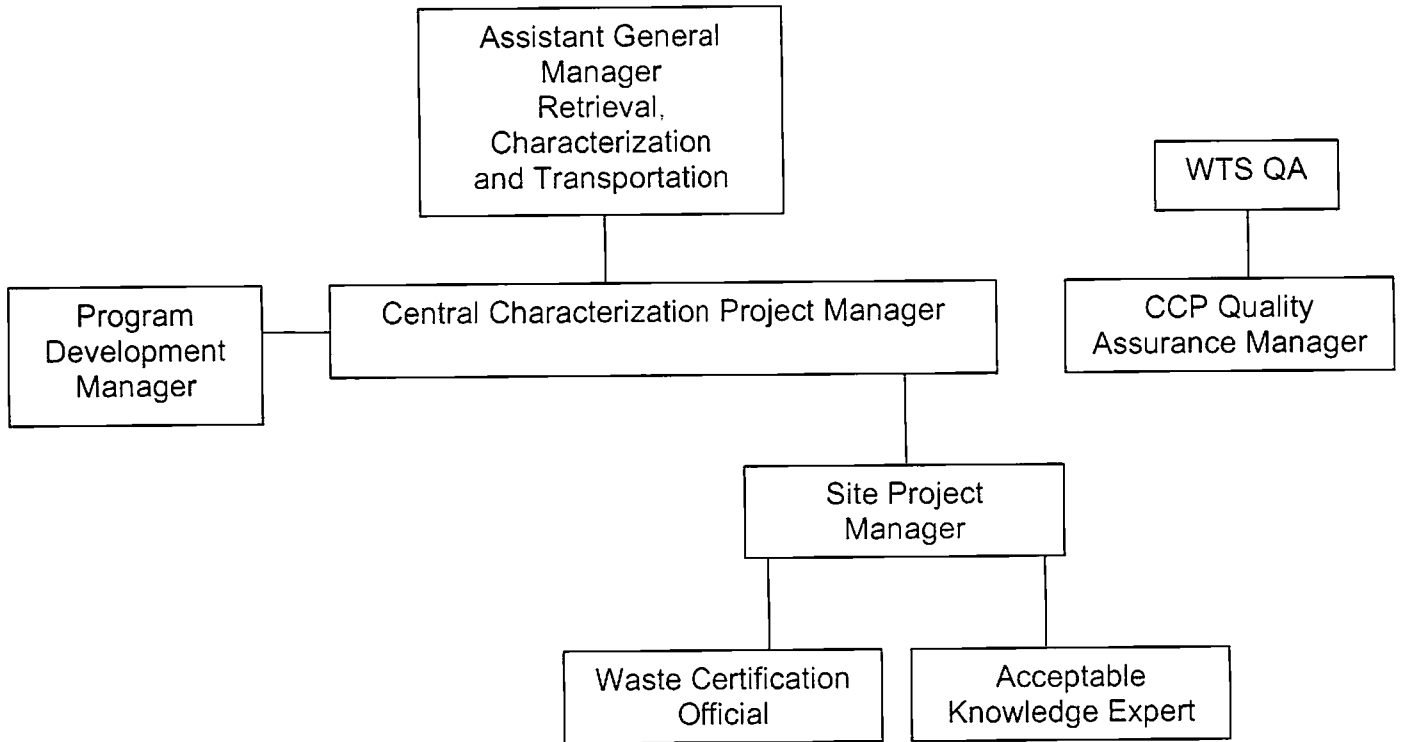
6.0 OVERSIGHT

NOTE

Through the IEWO contract between ORO and WTS, and the associated SOW, the ORO has delegated the authority to characterize and certify TRU waste to be shipped to the WIPP. Nonetheless, the Host facility retains the responsibility for proper disposal as the waste generator on behalf of DOE. Accordingly, the following actions will define the level of oversight of the CCP by Host facility personnel.

- 6.1 The Host facility will accept successful completion of the CBFO certification audit as adequate evidence that the CCP implementation at the Host facility is fully compliant with waste disposal requirements as set forth in the CH and RH WAC and WAP. However, the Host facility may conduct, at their discretion, periodic surveillances of CCP operations.
- 6.2 Following successful completion of the CBFO certification audit, the Host facility QA will conduct periodic surveillances to ensure CCP work is conducted in accordance with CCP procedures. These surveillances will be conducted in accordance with Host facility QA procedures.
- 6.3 The Host facility QA will provide copies of its surveillance reports to the CCP SPM. The CCP SPM and CCP QA will take the following actions:
 - 6.3.1 Review the Host facility surveillance reports for any finding or other deficiencies against the CCP scope of work.
 - 6.3.2 If required, prepare and process CARS in accordance with CCP-QP-006, *CCP Corrective Action Reporting and Control*, for deficiencies identified during the review.
 - 6.3.3 Provide Host facility QA with CCP actions to correct the identified deficiencies, as documented in the CAR.
 - 6.3.4 CCP QA will maintain an information file of the Host facility surveillance reports conducted on the CCP scope of work.

Figure 1 – CCP Organization



Section J, Attachment I

Determining Transuranic Alpha Activity Concentration
for Compliance with the
Nevada Test Site Waste Acceptance Criteria

**Determining Transuranic Alpha Activity Concentration
for Compliance with the
Nevada Test Site Waste Acceptance Criteria**

Revision 0

May 10, 2006

**Approved By:
U.S. Department of Energy
National Nuclear Security Administration
Nevada Site Office (NNSA/NSO)**

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Date

Determining Transuranic Alpha Activity Concentration for Compliance with the Nevada Test Site Waste Acceptance Criteria

The purpose of this paper is to provide clarification on determining the transuranic (TRU) alpha concentration of low-level radioactive waste (LLW) for compliance with Section 3.1.1, Transuranics, of the Nevada Test Site Waste Acceptance Criteria (NTSWAC), DOE/NV--325-Rev. 6, and to ensure correlation with DOE/WIPP-02-3122, "Contact-Handled Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant" (CH-WAC), Revision 4, Effective Date: December 29, 2005.

The U.S. Department of Energy (DOE), National Nuclear Security Administration Nevada Site Office (NNSA/NSO) uses a graded approach in its acceptance of waste characterization methods as described in Appendix E, "Radiological Waste Characterization and Reporting Requirements," of the NTSWAC. For example, measurement of the TRU activity with a confidence level has been accepted as demonstrating compliance with Section 3.1.1, Transuranics, of the NTSWAC (i.e., TRU waste criteria). However, the CH-WAC does not require a statistical confidence level in determining the TRU alpha concentration if the assay process is certified by the Carlsbad Field Office (CBFO). This difference has created a radioactive waste group without a disposal path. DOE radioactive waste management policy (DOE Order 435.1) and the CH-WAC were reviewed to clarify the NTSWAC for determining the TRU alpha concentration of LLW.

LLW is defined by what it is not. The DOE policy for managing radioactive waste is found in DOE Order 435.1, Change 1, "Radioactive Waste Management." DOE G 435.1-1, "Implementation Guide for use with DOE M 435.1-1, Chapter IV, Low-Level Waste Requirements," defines LLW as follows:

"Low-level radioactive waste is radioactive waste that is not high-level radioactive waste, spent nuclear fuel, transuranic waste, byproduct material (as defined in section 11e.(2) of the *Atomic Energy Act of 1954*, as amended) or naturally occurring radioactive material."

Section J, Attachment J

Nevada Test Site

Waste Acceptance Criteria



Nevada Test Site Waste Acceptance Criteria

Prepared by the

U. S. Department of Energy
National Nuclear Security Administration
Nevada Site Office
Waste Management Project



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Photograph on front cover: Desert National Wildlife Range landscape located southeast of Mercury, Nevada.

Nevada Test Site Waste Acceptance Criteria

**NTSWAC (Rev. 6-02)
October 2006**

Prepared by the

**U. S. Department of Energy
National Nuclear Security Administration
Nevada Site Office
Waste Management Project**

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Nevada Test Site Waste Acceptance Criteria

Approval Signatures

To the best of our knowledge, this document is correct and the process and criteria stated within meet the U.S. Department of Energy and appropriate federal regulation requirements.

Approved and

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Nevada Test Site Waste Acceptance Criteria

NTSWAC Revision History

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08/1997	All	Rev. 1
05/1999	All	Rev. 2
02/2000	i, vi, 3-5. Ref-1	Rev. 2. DCN DOE/NV-325-03-01
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01/2002	All	Rev. 4
10/2003	All	Rev. 5
07/2005	3-8, 3-10, Appendix G	Rev. 5-01. DOE/NV-325-Rev 5-DCN-05-01
10/2005	All	Rev. 6
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10/2006	i, ii-viii, 1-1, 1-2, 1-3, 2-1, 2-3, 3-1, 3-4, 3-6, 3-7, 3-8, 3-9, 3-11, 3-12, 3-16, 6-1, 6-2, 6-3, 6-4, 6-5, 6-6, 6-7, B-1, C-1, C-2, C-4, D-1, D-2, D-4, F-2, E-9, G-3, H-1, Ref-3, Ref-4	Rev. 6-02, DOE/NV-325-Rev 6-DCN-06-02

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Acronyms

ACM	Asbestos-Containing material
ALARA	As Low as Reasonably Achievable
ALLW	Asbestiform Low-Level Waste
AMEM	Assistant Manager for Environmental Management
Bq	Becquerels
CAR	Corrective Action Request
CFR	Code of Federal Regulations
Ci	Curie
CSE	Criticality Safety Evaluation
DET	Determination of Equivalent Technology
DOE	U.S. Department of Energy
DOT	U.S. Department of Transportation
DQO	Data Quality Objectives
EPA	U.S. Environmental Protection Agency
ETA	Estimated Time of Arrival
FGE	Fissile Gram Equivalence
HEPA	High-Efficiency Particulate Arresting
HRI	Human Readable Interpretation
LDR	Land Disposal Restrictions
LLD	Lower Limit of Detection
LLW	Low-Level Waste
MC&A	Materials Control and Accountability
M&TE	Measuring and Test Equipment
MW	Mixed Waste
MWP	Mixed Waste Profile
NDEP	Nevada Department of Conservation and Natural Resources. Division of Environmental Protection
NIC	NTSWAC Implementation Crosswalk
NNSA/NSO	National Nuclear Security Administration Nevada Site Office
NRC	U.S. Nuclear Regulatory Commission
NSTec	National Security Technologies, LLC
NTS	Nevada Test Site
NTSWAC	Nevada Test Site Waste Acceptance Criteria

Acronyms (continued)

PCB	Polychlorinated Biphenyls
PCL	Package Certification Label
PE-g	Plutonium Equivalent Gram
PK	Process Knowledge
PSDR	Package Storage and Disposal Request
QA	Quality Assurance
QAP	Quality Assurance Plan
RCRA	Resource Conservation and Recovery Act
RTR	Real-Time-Radiography
RWAP	Radioactive Waste Acceptance Program
RWMC	Radioactive Waste Management Complex
SSC	Structures, Systems, and Components
SW-846	EPA Document SW-846, "Test Methods for Evaluation Solid Waste, Physical/Chemical Methods"
TCLP	Toxicity Characteristic Leaching Procedure
TRU	Transuranic
WAC	Waste Acceptance Criteria
WAP	Waste Analysis Plan
WARP	Waste Acceptance Review Panel
WATS	Waste Generator Assistance and Technical Support
WCO	Waste Certification Official
WCPP	Waste Certification Program Plan
WMP	Waste Management Project
WP	Waste Profile

1.0

**Radioactive Waste Management at
the Nevada Test Site**



Gate 1 – Mercury, Nevada

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1.0 Radioactive Waste Management at the Nevada Test Site

1.1 Purpose and Scope

This document establishes the U.S. Department of Energy (DOE), National Nuclear Security Administration Nevada Site Office (NNSA/NSO) waste acceptance criteria (WAC). The WAC provides the requirements, terms, and conditions under which the Nevada Test Site (NTS) will accept low-level radioactive (LLW) and mixed waste (MW) for disposal. It includes requirements for the generator waste certification program, characterization, traceability, waste form, packaging, and transfer. The criteria apply to radioactive waste received at the NTS Area 3 and Area 5 Radioactive Waste Management Complex (RWMC) for storage or disposal. "Storage" in this document refers to the Area 5 RWMC classified units. The glossary defines the terms "storage" and "classified waste" as they are used in this document.

The NNSA/NSO and support contractors are available to assist you in understanding or interpreting this document. For assistance, please call NNSA/NSO Waste Management Project (WMP): phone (702) 295-0844, fax (702) 295-1153.

1.2 Policy

1.2.1 NNSA/NSO Policies

- ensure safe and compliant storage and disposal of radioactive waste; be consistent with the current revision of all applicable federal, state, and local regulations;
- protect the environment, personnel, and public from chemical and radiological hazards in accordance with Title 40 Code of Federal Regulations (CFR), the Resource Conservation and Recovery Act (RCRA); Title 10 CFR 835, "Occupational Radiation Protection"; DOE Order 435.1, "Radioactive Waste Management"; and state of Nevada and applicable U.S. Department of Transportation (DOT) regulations;
- ensure that present and future radiation exposures are kept as low as reasonably achievable (ALARA) and do not exceed the radiation protection standards established in Title 10 CFR 835. "Occupational Radiation Protection"; and.
- ensure that Quality Assurance (QA) programs are established and implemented to fulfill the requirements of DOE Order 435.1, "Radioactive Waste Management"; Title 10 CFR 830.122, "Quality Assurance"; and DOE Order 414.1C, "Quality Assurance."

1.2.2 Process

Waste will be accepted from generators approved by NNSA/NSO. The approval process is described in Section 2.0.

1.2.3 Waste Type

LLW and MW will be accepted for disposal at the NTS. However, to verify the current acceptance status of waste types, please contact NNSA/NSO WMP.

1.2.4 Regulators and Stakeholders

NNSA/NSO will facilitate appropriate oversight by state agencies and support the involvement of the stakeholders. Where appropriate, to the extent possible, and in accordance with applicable NNSA/NSO authority, NNSA/NSO will provide regulatory agencies and stakeholders access to information related to Nevada Test Site Waste Acceptance Criteria (NTSWAC) activities, including waste characterization data, from all generators. Upon request by such parties, arrangements may be made to observe NTSWAC-related facility evaluations and participate in other activities such as NTSWAC revisions.

1.3 Requirements

Requirements are identified by “*shall*” or “*must*.” The source of the requirement is identified by a superscript number which corresponds to the reference list. Statements not identified in this manner are provided as guidance. Section 2.0 requirements do not have corresponding references because the approval process is NNSA/NSO policy. Section 5.0 requirements are written in accordance with DOE Order 414.1, “Quality Assurance”; Title 10 CFR 830.122, “Quality Assurance”; and NNSA/NSO Policy unless otherwise noted by superscript.

1.4 Responsibilities

The following offices and personnel have responsibilities for management and acceptance of radioactive waste at the NTS. The offices identified are within the NNSA/NSO, unless otherwise stated.

1.4.1 Manager

Responsibilities and authorities as assigned in DOE Order 435.1.

1.4.2 Assistant Manager for Environmental Management (AMEM)

Responsibilities and authorities as assigned in DOE Order 435.1. Responsible for the NNSA/NSO Radioactive Waste Management Program (RWAP) according to DOE Manual NV M 435.1-1, "Radioactive Waste Management Manual." Provides approval to waste generators to dispose or store radioactive waste at the NTS and grants any deviations from the requirements of this document. Responsible for suspension of any generator. May delegate his/her responsibilities except for approval and suspension.

1.4.3 Director, Waste Management Project

Responsible for radioactive waste management operation of the Areas 3 and 5 RWMC in compliance with applicable DOE Orders and federal and state regulations. Develop, implement, and maintain the NTSWAC.

1.4.4 Low-Level Waste and Mixed Low-Level Waste Federal Sub-Project Director

Responsible for management of radioactive waste disposal operations at NNSA/NSO, and implementation of the RWAP program to ensure compliance with the NTSWAC, DOE Orders, and federal regulations. Responsible for the management of MW disposal operations at NNSA/NSO.

1.4.5 Radioactive Waste Acceptance Program Task Manager

Responsible for interfacing with waste generators regarding RWAP program criteria and activities, scheduling facility evaluations of waste generator programs, initiating recommendations to the AMEM regarding the status of waste generator programs, and maintaining RWAP quality records as defined by RWAP instructions.

1.4.6 RWAP Manager

Responsible for coordinating and managing daily activities of the RWAP program and RWAP personnel.

1.4.7 RWAP Personnel

Responsible for development, implementation, and maintenance of RWAP program documents (i.e., NTSWAC, instructions, checklists, etc.), and for providing guidance to generators shipping radioactive waste to the NTS.

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2.0

Approval Process



Bristlecone Pine, Rainier Mesa, and Stockade Wash, Nevada Test Site

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2.0 Approval Process

All waste/material offered for disposal/storage *shall* be evaluated pursuant to DOE Order 435.1, Change 1. The following describes the approval process and generator document requirements used by NNSA/NSO to verify that waste generators have a program in place to ensure that compliant waste is shipped to the NTS.

Official interactions between the generator and NNSA/NSO are initiated through the generator's DOE oversight office or designated points of contact.

Corrective Action Requests (CARs) are issued to generator sites when conditions adverse to quality are identified.

A flow diagram of the approval process is provided in Appendix A.

2.1 Generator Document Requirements

Generators should contact NNSA/NSO WMP and verify that the proposed waste type can be accepted at the NTS. The generator *shall* develop, implement, and maintain the documents listed below.⁷⁵

2.1.1 Waste Profiles

A Waste Profile (WP) *shall* be prepared and submitted to NNSA/NSO for each waste stream proposed for disposal. The WP summarizes the waste form and characterization data, and *shall* include a list of referenced procedures, citing the number and title. The WP instructions, numbering, and format that *must* be used are available from NNSA/NSO or on the NNSA/NSO website at <http://www.nv.doe.gov/emprograms/environment/wastemanagement/rwap.aspx>⁷⁵

2.1.2 Waste Certification Plan

A Quality Assurance Plan (QAP) *shall* be documented in accordance with Section 5.0 and submitted to NNSA/NSO.⁷⁵

2.1.3 NTSWAC Implementation Crosswalk

An NTSWAC Implementation Crosswalk (NIC) *shall* be prepared and submitted to NNSA/NSO in accordance with Section 5.0.⁷⁵ An electronic copy of the NIC is available from NNSA/NSO or on the NNSA/NSO website at <http://www.nv.doe.gov/emprograms/environment/wastemanagement/rwap.aspx>

2.1.4 Certification Personnel List

A current list identifying the Waste Certification Official(s) (WCOs), alternate WCOs, and Package Certifier(s) *shall* be developed and submitted to NNSA/NSO in writing. The list *shall* include the name and telephone number of each individual authorized to certify waste packages and shipments. This information is used by RWMC personnel to verify signatures on the Package Certification Labels (PCLs) and to assure that shipments are from authorized personnel. Any packages or shipments certified by unauthorized personnel *shall not* be accepted by the RWMC.

2.1.5 Document and Personnel Changes

Generators *shall* notify NNSA/NSO in writing of any changes to the above documents and/or key personnel. Prior to implementation, the WCO *shall* immediately notify NNSA/NSO in writing of any critical process and/or procedure changes to the approved certification program. Examples of critical processes and/or procedures include, but are not limited to, the following:

- Changes in inspection frequency;
- Changes in characterization methodology; and
- Changes in training requirements.

Assistance in determining critical processes and/or procedures requiring written notification can be obtained from the RWAP Task Manager.

2.2 RWAP Review

NNSA/NSO's approval process for a generator's waste certification program and waste streams includes document reviews and on-site evaluations to verify program implementation. During these evaluations, CARs may be issued when conditions adverse to quality are identified by NNSA/NSO. CARs require the generator to document a root cause, corrective action, and action to preclude recurrence. Failure to respond to CARs could lead to delays in approval or result in suspension in accordance with Section 2.4.

2.2.1 Facility Evaluations

Facility evaluations (audits, surveillances) are scheduled and conducted by RWAP.

2.2.1.1 *Audit*

New generators *shall* submit the documents described in Section 2.1 to NNSA/NSO prior to scheduling their initial audit.⁷³ Discretionary programmatic audits of approved generators may be conducted as directed by NNSA/NSO.

The purpose of the audit is to examine and evaluate objective evidence to verify that the documents contain the necessary elements and are adequately implemented. The audit scope will include an on-site evaluation of the characterization, QA, and waste traceability program elements. Audits are both performance- and program-based.

2.2.1.2 *Surveillance*

Scheduled or unscheduled surveillances may be performed to evaluate specific program elements, new waste streams, and verify implementation of corrective actions.

2.2.2 **Waste Profiles**

Waste profiles *shall* be submitted for review through the Waste Acceptance Review Panel (WARP) process.⁷⁵ The WARP may require additional information from the generator, may recommend surveillance, or may recommend NNSA/NSO approval or suspension of the waste stream.

New generators *shall* complete and submit at least one profile to NNSA/NSO for review prior to the initial audit.⁷⁵

WPs for new waste streams or changes to approved waste streams may be submitted to NNSA/NSO for review by the WARP at any time.

The WCO *shall* perform a documented annual review of NTS-approved LLW WPs, based on the current revision date of each profile, to ensure the characterization data, waste stream information, and referenced procedures are current.⁷⁵ For the recertification of Mixed Waste Profiles (MWP), see Section 3.3.3.

Changes to approved WPs *shall* be submitted to NNSA/NSO for review by the WARP.⁷⁵ Depending on the significance of the changes, the approval to ship may be temporarily suspended until the changes are reviewed and accepted.

Generators *shall* notify NNSA/NSO in writing when terminating an approved WP (project is complete, one-time-only waste stream has been shipped, etc.).⁷⁵

2.2.3 Split Sampling

The purpose of the split sampling program is to verify the results of waste analysis. NNSA/NSO may select a waste stream for split sampling based on its annual volume, the potential for finding hazardous components, or the scope and complexity of the sampling process to be performed. NNSA/NSO may require split sampling prior to the waste stream being approved.

Samples will be collected by the generator's sampling team under the observation of an RWAP representative. NNSA/NSO may split a representative waste sample with the generator for independent analysis. Samples will be sent to the generator laboratory and to an independent laboratory chosen by NNSA/NSO. The samples will be analyzed by the same analytical methods. Results of the analyses from both laboratories will be compared by RWAP after data validation. Differences between the two sets of data may require further investigation.

2.3 Approval

RWAP personnel recommend to NNSA/NSO AMEM that approval be granted after the generator has demonstrated satisfactory implementation of the NTSWAC. The NNSA/NSO AMEM will provide written notice of approval, identifying the last facility evaluation number, current Waste Certification Program Plan (WCPP) or QAP and revision, and approved waste stream(s). Conditions affecting waste stream approval will be identified.

Approved waste generators *shall* ensure that the following documents are maintained current within the NNSA/NSO RWAP while their approval to ship waste is in effect:⁷⁶

- List of Authorized Certification Personnel
- Latest approved WP (Active WPs Only)
- Controlled copy of the QAP
- NIC

2.4 Suspending Approval

NNSA/NSO may suspend approval if generator's waste or documents do not meet the NTSWAC requirements. Individual waste streams or the generator's entire program may be suspended. Suspension may be issued verbally by NNSA/NSO

representatives, followed by official written notification. Reasons for suspension may include, but are not limited to:

- Improper manifesting (e.g., incorrect nuclide inventory or activity level reported).
- Repetitive programmatic deficiencies.
- Incorrect waste characterization.
- Waste container integrity deficiencies.
- Inadequate nuclear criticality safety limits, and
- Facility evaluation results.

2.5 Technical Support

NNSA/NSO provides qualified technical assistance on NTSWAC issues at no cost to the generator. Generators wanting an independent review and one-on-one consulting on issues regarding their low-level waste management program are encouraged to contact NNSA/NSO. NNSA/NSO assistance to waste generators includes:

- Gap-Analysis site visits
- Policy and regulatory interpretations
- Waste packaging and transportation issue assistance

For additional information on requesting technical support, contact the NNSA/NSO RWAP Task Manager at (702) 295-2969.

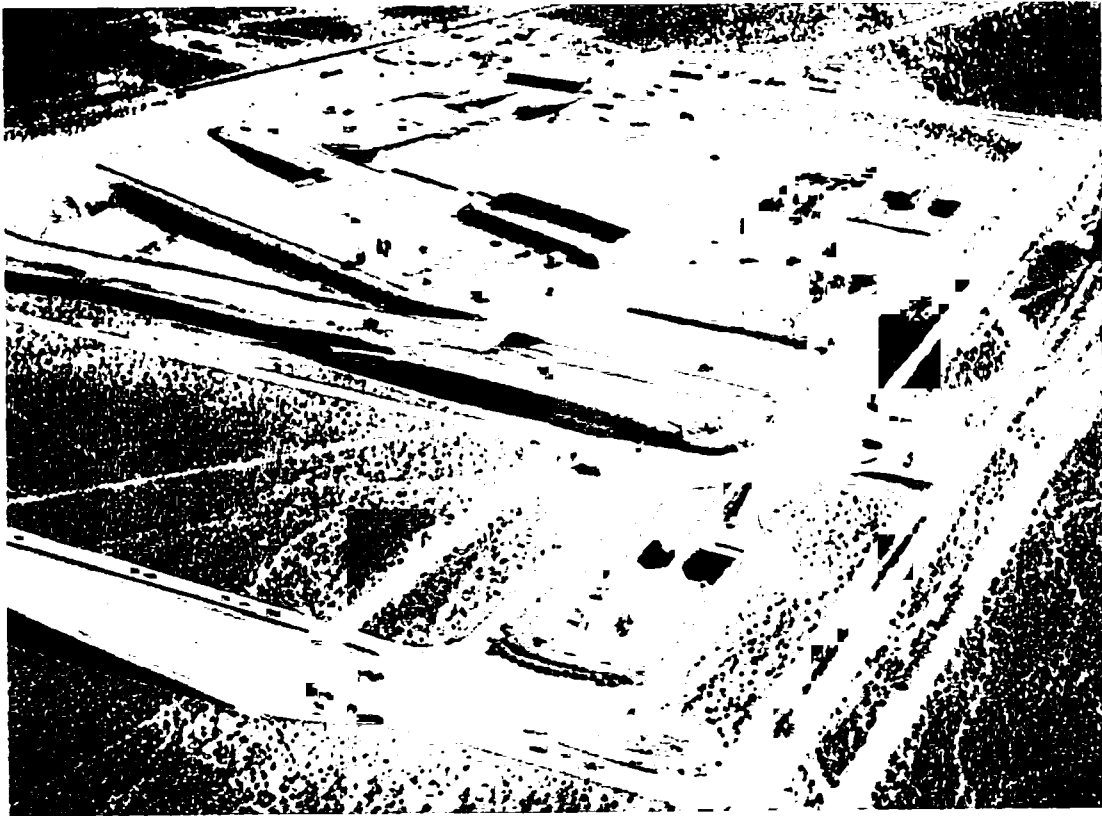
2.6 NNSA/NSO Policy

Because of changes in regulatory requirements, NTS policies, and changes instituted as a result of lessons learned, any aspect of the waste certification process may be subject to a full review to ensure its compliance with any changed requirements and effectiveness. This review may entail imposing additional requirements or reversing previous decisions. Unannounced facility evaluations may be performed at the discretion of NNSA/NSO.

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3.0

Waste Criteria



Area 5 Radioactive Waste Management Complex, Nevada Test Site

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3.0 Waste Criteria

Waste accepted at the NTS *must* be radioactive and *shall* meet the waste form criteria outlined below.⁶ Generators *must* ensure that waste is handled, stored, and shipped in accordance with applicable DOE, DOT, U.S. Environmental Protection Agency (EPA), state, and local regulations and requirements. Waste streams deviating from these requirements will be evaluated in accordance with Section 3.4, WAC Deviations.^{7,8,15}

3.1 General Waste Form Criteria

These waste form criteria are based on DOE radioactive waste management policies and practices.

3.1.1 Transuranics

The concentration of alpha-emitting transuranic nuclides with half-lives greater than 20 years *must not* exceed 100 nCi/g.⁴⁵ The net weight of the waste (excluding the weight of the container and shielding) *must* be used to calculate the specific activity of the waste in each container.¹¹

The following isotopes *shall* be considered when making the transuranic waste determination: ²³⁷Np, ²³⁸Pu, ²³⁹Pu, ²⁴⁰Pu, ²⁴²Pu, ²⁴⁴Pu, ²⁴¹Am, ^{242m}Am, ²⁴³Am, ²⁴³Cm, ²⁴⁵Cm, ²⁴⁶Cm, ²⁴⁷Cm, ²⁴⁸Cm, ²⁵⁰Cm, ²⁴⁷Bk, ²⁴⁹Cf, ²⁵¹Cf. Additional information on determining the transuranic alpha concentration can be found in the document "Determining Transuranic Alpha Activity Concentration for Compliance with NTSWAC" located at the web address

<http://www.nv.doe.gov/emprograms/environment/wastemanagement/rw/ap.aspx>.¹⁴

3.1.2 Radionuclide Content or Concentration

Radionuclide concentration *must* be reported in accordance with Appendix E, "Radionuclide Characterization and Reporting Requirements."^{6,7,16,18} Radionuclide limits for disposal are listed in Table E-1, "Radionuclide Action Levels for Waste Characterization and Reporting." Waste having radionuclide concentrations above these limits may be acceptable for disposal upon review by NNSA/NSO, provided the content does not exceed the package activity limits identified in Section 3.2.2.

3.1.3 Commercial Greater-Than-Class-C Waste

Greater-Than-Class-C waste, as defined by Title 10 CFR 61.55, generated by U.S. Nuclear Regulatory Commission (NRC) licensees *shall not* be accepted for disposal at the NTS.

3.1.4 Hazardous Waste

Waste regulated solely under Title 40 CFR 261-268 and state of Nevada hazardous waste regulations *shall not* be accepted for disposal.^{13,54} State of Nevada regulations require that waste regulated as hazardous in the state of generation *must* be regulated as hazardous when brought into the state of Nevada; therefore, such waste *shall not* be accepted for disposal.⁵³ For MW, see Section 3.3.

Environmental media from cleanup activities may be acceptable for disposal if:

The state of origin makes a “Contained-In Determination” for LLW environmental media that was in contact with “listed” wastes. The generator *must* submit this determination to NNSA/NSO for evaluation, and provide and demonstrate:⁷³

- Documentation that the waste is primarily environmental media (not debris). For the purpose of this determination, environmental media is defined as materials found in the natural environment such as soil, groundwater, surface water, and sediments; or a mixture of such with liquids, sludges, or solids which is inseparable by simple mechanical removal processes;
- Documentation that the media was representatively sampled and evaluated for total contaminant concentrations (mg/kg) and Toxicity Characteristic Leaching Procedure (TCLP) concentrations (mg/L) where applicable;
- If the treatment standard is provided in “mg/kg” (totals), the “listed” constituents *must* be less than one-tenth of the concentration of the RCRA Land Disposal Restriction (LDR) (Title 40 CFR 268.40). If the treatment standard is provided in “mg/l TCLP,” the TCLP concentration *must* be less than the Safe Drinking Water Act Standard (MCL);
- Laboratory data including QA/Quality Control data;

The Nevada Department of Conservation and Natural Resources, Division of Environmental Protection (NDEP) will evaluate the state of origin “Contained-In Determination” on a case-by-case basis for concurrence and will issue written correspondence through the WARP process once the generator has provided and demonstrated the above-stated items.

Debris contaminated with “listed” constituents will be evaluated, independent of the criteria established above for environmental media.

3.1.5 Free Liquids

Liquid waste and waste containing free liquids *must* be converted into a form that contains as little free-standing and noncorrosive liquid as is reasonably achievable.⁷¹ Liquid waste and waste containing free liquids should be processed to a solid form or packaged in sufficient sorbent for twice the volume of the liquid. The free liquid *must* not exceed 1 percent of the volume of the waste when the waste is in a disposal container; or 0.5 percent of the volume of the waste processed to a solidified form.⁷² Provisions for additional sorbent should be made when significant temperature and atmospheric differences exist between the generating site and the disposal site.

Waste *must* be evaluated to determine its potential to release liquid during handling, storage, and transportation.⁷³ High moisture content waste is defined as waste that has the potential to release moisture from its final waste form in excess of the NTSWAC requirement. Generators *must* document the decisions made when characterizing and determining sorbents for high moisture content waste (see the Nevada Test Site Generator Work Group "Position Paper for High Moisture Content Waste," Revision 0, dated 11/3/1998, for use as guidance located at <http://www.nv.doc.gov/emprograms/environment/wastemanagement/rw/ap.aspx>).

3.1.6 Particulates

Fine particulate wastes *shall* be immobilized so that the waste package contains no more than 1 weight percent of less-than-10-micrometer-diameter particles, or 15 weight percent of less-than-200-micrometer-diameter particles.⁷⁴ Waste that is known to be in a fine particulate form or in a form that could mechanically or chemically be transformed to a particulate during handling and interim storage *must* be immobilized.⁷⁵

Secure packaging may be used in place of immobilization. The following are examples of acceptable packaging: overpacking (i.e., 55-gallon drum inside 85-gallon drum); steel boxes; drums with a sealed, 6 mil minimum (or equivalent) liner; and wooden boxes with a sealed, 6 mil minimum (or equivalent) liner. Disposal containers with contents individually wrapped and sealed in plastic are also acceptable.

3.1.7 Gases

LLW gases *must* be packaged at a pressure that does not exceed 1.5 atmospheres absolute at 20°C.^{76,77} Compressed gases as defined by Title 49 CFR *shall not* be accepted.⁷⁸ Examples of compliance methods include puncturing aerosol cans and removing the valve mechanism from expended gas cylinders.

3.1.8 Stabilization

Where practical, waste *must* be treated to reduce volume and provide a more stable waste form.⁶² Wastes *must not* react with other wastes or the packaging during storage, shipping, handling, and disposal.⁶³

Structural stability can be accomplished by crushing, shredding, or placing a smaller piece inside an opening of a larger piece, such as nesting pipes

Chemical stability and compatibility *must* be demonstrated to ensure that no reactions occur and significant quantities of harmful gases, vapors, or liquids are not generated⁶³ (specifically when different waste forms are combined in a single waste container).

3.1.9 Etiologic Agents

LLW containing pathogens, infectious wastes, or other etiologic agents as defined in Title 49 CFR *shall not* be accepted.⁷⁶

3.1.10 Chelating Agents

LLW packages containing chelating or complexing agents in amounts greater than 1 percent of the waste *shall not* be accepted unless stabilized or solidified.^{83,98}

3.1.11 Polychlorinated Biphenyls (PCBs)

LLW containing PCBs that meet the requirements for disposal in a solid waste or permitted hazardous waste landfill as specified in 40 CFR Part 761 and NAC 444.9452 will be accepted. PCB-contaminated LLW *must* be packaged, marked, and labeled in accordance with the requirements of Title 40 and Title 49 CFR.^{122,17} Packages containing PCB-contaminated LLW *must* meet the applicable shipping requirements for the radioactive content of the package.

Generators *must* provide written notice a minimum of 15 days in advance of the first shipment of each waste stream containing PCB bulk product waste.¹²¹ The notice *shall* be faxed to the NTS at (702) 295-6852 and *shall* state the following: (1) This waste may include components containing PCBs at greater than or equal to 50 ppm (based on analysis or process knowledge), and (2) This waste is known or presumed to leach less than 10 micrograms of PCBs per liter of water.¹²¹ [Note: Waste presumed to leach less than 10 micrograms of PCB per liter of water are those in which PCBs are tightly bound within

a matrix. EPA lists the following as included in such waste: Plastics; preformed or molded rubber; applied dried paints, varnishes, waxes, or other coating or sealants; caulking; nonliquid building demolition debris; and shredder fluff.]

3.1.12 Explosives

Waste *must not* be readily capable of detonation or of explosive decomposition or reaction at normal pressures and temperatures, or of explosive reaction with water.^{6,12}

3.1.13 Pyrophorics

Waste *must not* be pyrophoric.^{6,12} Pyrophoric materials contained in the waste *shall be* treated, prepared, and packaged to be nonflammable.^{6,12} Pyrophoric materials that are blended in a hardened concrete matrix are considered to be treated to be nonflammable.

3.1.14 Sealed Sources

Sources containing transuranic nuclides *must* be individually evaluated against the transuranic criteria (Section 3.1.1), considering only the mass of the source and any component integral to the source.^{7,3}

Sealed sources that have an activity of less than 3.7 MBq (100 μ Ci) can be a component of waste streams such as contaminated trash. The total volume of the waste can be used for waste classification and for determination of the radionuclide concentration. Characterization of non-transuranic sources (i.e., less than 3.7 MBq [100 μ Ci]) on an individual source basis is not required, provided that the characterization method used is adequate to ensure compliance with the radionuclide reporting criteria.

Sealed sources that have an activity of 3.7 MBq (100 μ Ci) or greater *shall be* segregated from other waste and profiled as a separate waste stream.^{7,3} These sealed sources *shall be* characterized on an individual basis using the volume or mass of the source to determine the radionuclide concentration.^{7,3} Sealed sources may be co-packaged with other waste streams provided Section 3.0, Waste Criteria,^{7,3} are met.

Additional guidance on the definition, proper packaging, and characterization of sealed sources can be found in the "Position Paper on the Proper Characterization and Disposal of Sealed Radioactive Sources," located at the web address below:

<http://www.nv.doe.gov/emprograms/environment/wastemanagement/rw ap.aspx>

3.1.15 Low-Level Waste Containing Asbestos

Asbestiform Low-Level Waste (ALLW) is defined as any LLW containing friable asbestos material: Category I nonfriable asbestos-containing material (ACM) that has become friable; Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading; or Category II nonfriable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder. ALLW *must* be packaged, marked, and labeled in accordance with the requirements of Title 40 CFR, State of Nevada Solid Waste Disposal Site Permit (SW1300001, current revision), state-of-generation, and the NTS Management Plan for the Disposal of Low-Level Waste with Regulated Asbestos Waste, current revision.⁷² Packages containing ALLW *must* meet the applicable shipping requirements for the radioactive contents of the package.⁷³ ALLW *must* be wetted with a water and surfactant mixture and packaged in a plastic bag which is not less than 6 mil in thickness, a combination of plastic bags which equal at least 6 mil in thickness, or a container which is lined with plastic.⁷⁴

If free liquid is present, sorbent *must* be added to ensure compliance with the free-liquids criteria.⁶¹ Sharp edges and corners in the package *must* be padded or protected to prevent damage to the plastic bag during handling, shipping, and disposal.⁷⁵

Each container used to dispose ALLW *must* bear a label that contains one of the statements below.¹²

<p>(1) CAUTION CONTAINS ASBESTOS FIBERS AVOID OPENING OR BREAKING CONTAINER BREATHING ASBESTOS IS HAZARDOUS TO YOUR HEALTH</p>	
<p>(2) CAUTION CONTAINS ASBESTOS FIBERS AVOID CREATING DUST MAY CAUSE SERIOUS BODILY HARM</p>	<p>(3) DANGER CONTAINS ASBESTOS FIBERS AVOID CREATING DUST CANCER AND LUNG DISEASE HAZARD</p>

ALLW *must* be segregated into a separate waste stream.⁷⁶ Because of state notification requirements and disposal cell capacity, ALLW *must* be packaged separately from other waste streams.⁷⁷ Call NNSA/NSO WMP at (702) 295-7063 for assistance and a copy of the current NTS Management Plan for the Disposal of Low-Level Waste with Regulated Asbestos Waste, which includes specific requirements for pre-shipment notifications. The pre-shipment notification *must* be faxed to

NNSA/NSO at least seven (7) days prior to shipment arrival.⁷⁵ A signed copy of the notification will be returned to the generator indicating authorization of the shipment.

3.1.16 Radioactive Animal Carcasses

Animal carcasses containing, or contained in, radioactive materials *shall* be packaged with the biological material layered with lime and placed in a metal container meeting applicable requirements.¹¹¹²⁷⁶ If the resultant waste matrix is capable of gas generation, the container *shall* be vented with a carbon composite High-Efficiency Particulate Air (HEPA) filtration device.¹¹⁷⁶ NNSA/NSO may require analysis of the waste decomposition gases. Animal carcasses preserved with formaldehyde *shall not* be accepted for disposal.⁷⁶

3.1.17 Low-Level Beryllium Waste

For this section, beryllium is defined as elemental beryllium and any insoluble beryllium compound or alloy containing 0.1 percent beryllium or greater that may be released as an airborne particulate. Beryllium-containing waste, and beryllium-contaminated equipment *must* be packaged in sealed, impermeable bags (minimum 6 mil), containers, or enclosures to prevent the release of beryllium dust during handling and transportation.¹¹⁷⁷ The bags, containers, and enclosures *must* be labeled with the following information¹⁴:

“DANGER. CONTAMINATED WITH BERYLLIUM
DO NOT REMOVE DUST BY BLOWING OR SHAKING
CANCER AND LUNG DISEASE HAZARD”

3.1.18 “Classified Waste”

“Classified Waste” *must* be segregated into a separate waste stream.⁷⁶ For “Classified Waste” requiring protection from visual observation, the Advance Shipment Notification identified in Appendix C.4 *must* be faxed to NTS at (702) 295-6852 at least seven (7) days prior to shipment arrival.⁷⁶

3.2 Waste Package Criteria

Waste packages *must* meet applicable DOE Orders, Title 10 CFR, Title 40 CFR, and Title 49 CFR requirements such as: design, nuclear safety, radiation levels, activity limits, nuclear heating, and multiple hazards. Waste packages *must* be capable of withstanding the stresses associated with the loading, handling, stacking, and shipping of the package.⁴⁴

NNSA/NSO has adopted the following waste package criteria to assure that the NTS RWMC is operated safely and efficiently:

3.2.1 Nuclear Criticality Safety

The quantity of fissile (fissionable) material in a waste package *shall* be limited so that an infinite array of such packages will be subcritical under "as packaged" conditions and if the array were to be flooded with water to any credible degree.⁶²⁷ Waste packages *shall* comply with the fissile material limits in Appendix E.⁷³ Compliance of a waste package with the fissile material limits is required to be documented in the WP.

3.2.2 Package Activity Limitations

Package Activity limits at the NTS are based on Plutonium-239 equivalent grams (PE-g). Packages offered for disposal *must* have PE-g limits in accordance with the table below.⁷⁴ These limits correspond to the type of package being disposed, not the shipping container (i.e., a plastic bag inside a reusable container, once dumped *must* meet the soft-sided package limits). PE-g calculations are confirmed by NTS personnel prior to shipment receipt based on the Package Storage and Disposal Request (PSDR). Any package in excess of these limits will result in the entire shipment being refused by NTS personnel. Conversion factors for PE-g from Becquerels can be found in Appendix B. For assistance in developing conversion factors for isotopes not listed in Appendix B, contact NNSA/NSO.

Table 3.1 Package Activity Limits

Package type	PE-g limits
LLW DOT Type-A Drum	300 PE-g total
LLW Standard Waste Box	300 PE-g total
Soft-Sided Packages (supersacks, etc.)	300 PE-g total
Strong-Tight Container (Sealands, etc.)	300 PE-g total
HSA Container (DOT Type A)	300 PE-g total
DOT Type B containers (Supertigers)	No limit if type B container is disposed

PE-g limits for NTS shipments are limited to 2,000 PE-g per shipment. For example, two cargo containers with 300 PE-g each may be shipped together, but 10 drums of 250 PE-g each may not be shipped together because the total is greater than 2,000 PE-g. This does not apply to shipments made exclusively of DOT Type B containers where the Type B containers are for disposal.

NTSWAC deviations are available for all hard sided packages that may increase the PE-g limit per package and/or per shipment if permitted by the waste facility safety basis.

3.2.3 Closure

The package closure *must* be sturdy enough that it will not be breached under normal handling conditions.

3.2.4 Lead Shielding

The use of lead for shielding (radioactively contaminated or radioactively uncontaminated) in containers for the disposal of LLW is an acceptable practice. Generators *must* maintain the following:

- Documentation demonstrating that standard packaging without lead shielding would not reduce the exposure rate to less than 0.005 rem/hr (5 mrem/hr) at 30 centimeters and the shielding is necessary for radiation protection; and,
- Documentation demonstrating that the amount of lead used for shielding is not excessive for each specific container of LLW. The documentation *shall* include calculations demonstrating the amount of lead (thickness/quantity) in the container is not excessive by justifying the quantity of lead required in each given container. or on a container-by-container basis. Justification for using the appropriate amount of lead shielding can be demonstrated by a detailed dose rate survey that shows the shielded dose rate exceeds 0.005 rem/hr at 30 cm from the waste package.

Additional information on the use of lead shielding can be found in the "Position Paper On The Use Of Lead Shielding For The Disposal Of Low Level Waste At The Nevada Test Site," located at the web address below:

<http://www.nv.doe.gov/emprograms/environment/wastemanagement/rwap.aspx>

3.2.5 Strength

The disposal package (packaging and contents) *must* be capable of supporting a uniformly distributed load (compressive strength) of 16.477 kg/m² (3.375 lbs/ft²).

This is required to support other waste packages and earth cover without crushing during stacking and covering operations. Actual physical testing or design engineering calculations may be used to demonstrate this requirement. This requirement does not apply to bulk waste, waste packaged in steel drums, or cargo containers.

Bulk waste containers, including cargo containers, *must* be sufficiently strong to not breach under normal offloading conditions.⁷⁵ Bulk waste containers with a reasonable probability of breaching during offloading (i.e., burrito wraps), regardless of the type of transport vehicle (i.e., intermodals), *must* meet the package activity limitations of Section 3.2.2.⁷⁶ All alternative packaging will be evaluated by NTS operations on a case-by-case basis. Alternative packaging approval will be dependent on waste stream characteristics.

3.2.6 Handling

Handling procedures and ALARA documentation *must* be referenced on the WP for wastes requiring remote handling.⁷⁶ The disposal site may request this documentation. Packages exceeding 1 mSv/hr (100 mR/hr) dose rate at 30 centimeters *shall* be considered for remote handling.⁷⁶ Remote handling will incur additional cost for the generator and may delay the profile approval process. Waste streams with packages exceeding 100 mR/hr at 30 centimeters or alternative packages (i.e., supersacks, plastic wraps) require RadCon approval and may be evaluated against the Documented Safety Analysis using the Unreviewed Safety Question process.

Waste packages *must* be provided with cleats, offsets, rings, handles, permanently attached or removable skids, or other auxiliary lifting devices to allow handling by means of forklifts, cranes, or similar handling equipment.⁷⁶ All waste streams with packages requiring cranes for off-loading *must* have an approved lift plan generated by NTS Operations prior to shipment.⁷⁶ Additional costs incurred by this development and implementation will be the responsibility of the waste generator. Removable skids are preferred to assist in meeting NTS Performance Assessment objectives for reducing disposal cell subsidence. Lifting rings and other auxiliary lifting devices on the package are permissible, provided that they are recessed, offset, or hinged in a manner that does not inhibit stacking the packages. Auxiliary lifting devices for any portion of the package extending from the top of the waste package *must* be no higher than 0.1 meter (4 inches) in normal position.⁷⁶ The lifting devices *must* be designed with a 5:1 safety factor based on the ultimate strength of the material.⁷⁷ All rigging devices that are not permanently attached to the waste package *must* have a current load test based on 125 percent of the safe

working load.⁷ Permanently attached rigging devices *shall* have traceable certifications.^{7a} They *must* not show any signs of corrosion, kinking, birdcaging, or other deterioration.^{7a}

LLW packages that have abnormal centers of gravity *must* be clearly marked with the center of gravity.^{7a} Top-heavy loads are severely discouraged, and bulk waste shipments with complex geometries *shall* be loaded in the most stable configuration.^{7a} Cargo containers are exempted from this requirement until the gross weight exceeds 30,000 lbs.

3.2.7 Size

Boxes measuring 1.2- x 1.2- x 2.1-m (4- x 4- x 7-ft) or 1.2- x 0.6- x 2.1-m (4- x 2- x 7-ft) (width x height x length, plus or minus 1/2 inch) or 208-liter (55-gallon) drums should be used. These sizes allow optimum stacking efficiency in disposal cells. Alternate packages (i.e., super-sacks, burrito wraps) will be considered; however, RWMC operations personnel need to be consulted to ensure equipment compatibility. MW, "Classified Waste," ALLW, PCBs, or Low-Level Hydrocarbon-Burdened waste that is not packaged in hard-sided containers meeting the strength requirement, allowing the packages to be stacked at least 14 feet high in a safe and stable manner, may incur additional handling costs.

Bulk waste generally exists in a form not suited to the conventional packaging requirements. Bulk LLW *must* meet the requirements of Title 49 CFR.^{4,7} Large items of bulk waste, such as machinery, may be considered for disposal unpackaged. For the transfer of unpackaged bulk material having external contamination, the contamination *must* be fixed, covered, or contained sufficiently for safe transfer.⁴

Refer to Appendix F for specific packaging requirements and limitations for intermodal (Roll-off boxes) containers that will be returned to the generator. All other types of containers that are requested to be returned will be evaluated on a case-by-case basis during the waste profile review process. The request that containers be returned should be identified in the special-handling section of the waste profile. The return of bulk containers may incur additional operational costs.

3.2.8 Weight

In addition to the weight limits for specific packaging designs, packages *shall not* exceed 4,082 kg (9,000 lbs) per box and 544 kg (1,200 lbs) per drum.²¹ This weight limit does not apply to bulk waste.

3.2.9 Loading (Void Space)

Waste packages *must* be loaded to ensure that the interior volume is as efficiently and compactly loaded as practical to minimize void space.¹⁰ More than one waste stream may be packaged in a disposal container, except those waste streams that *must* be profiled separately (MW, "Classified Waste," ALLW, etc.).^{11,12,13} MW packages *must* meet the void space criteria in Section 3.3.6.2.¹⁰

3.2.10 Package Protection

Methods *must* be employed to ensure that the integrity of the in-process waste package is not compromised (i.e., prohibited items are not introduced into the waste package).¹⁴

Once the waste package certification activities have been completed and the packages have been sealed, the packages *must* be stored in a secure, protected area to prevent deterioration and unauthorized intrusion.¹⁵ Storage should include protection from adverse weather, particularly

rain and snow. Tamper-indicating devices (TIDs), clips, or banding can be used to indicate that the package has not been opened. These devices *shall not* contain lead.¹⁵

3.2.11 Marking and Labeling

Each waste package *must* be marked and labeled according to Appendix C.¹⁶ Markings and labels *must* be intact and readable when the shipment arrives at the disposal site.¹⁶

3.2.12 Bar Coding

The shipment and package numbers *must* be bar coded according to the standards in Appendix C.¹⁶

3.2.13 Contamination Levels

External contamination levels for waste packages and transport vehicles *must* meet the release limits specified in Title 10 CFR Part 835, Appendix D.¹⁷

3.3 Mixed Waste

MW offered for disposal *must* meet the applicable characterization, treatment,

packaging, and disposal requirements of the NTSWAC, Title 40 CFR, state of Nevada, and state-of-generation regulations.⁴²

3.3.1 Acceptable Hazardous Waste Numbers

MW accepted for disposal *must* have one or more of the EPA hazardous waste numbers listed below or *must* be considered a hazardous waste in the state of generation:⁴³

Waste Codes: D004 through D043
F001 through F009, F039
P001 through P205
U001 through U249, U271, U278, U279, U280, U328,
U353, U359, U364, U367, U373, U387, U389, U394,
U395, U404

3.3.2 Mixed Waste Treatment Notification

Generators with MW that requires treatment to meet the LDR standards, but the treatment has yet to occur, *must* submit to NNSA/NSO the information contained in the Pre-Treatment Notification Form found in Appendix G.⁴⁰ This will allow the scheduling of on-site verification activities in accordance with Section 3.3.8.

If treatment is performed by a commercial facility, it *shall* have a current DOE Consolidated Audit Program (DOECAP) audit, or equivalent.⁴⁰

3.3.3 Mixed Waste Profiles

In addition to the NTSWAC requirements for waste profiles in Section 2.1.1, MWPs *must* be profiled and packaged separately from LLW. MWPs *shall* be approved for a finite volume of waste.⁴⁴ MWPs *shall* include the number of containers, container sizes, and dose rates at 30 cm for the mixed waste covered by the MWP.⁴⁴

MWPs have annual expiration dates and *must* be recertified annually (based upon the profile revision date) to the NNSA/NSO with the information contained in Appendix G-2.⁴⁶

3.3.4 Land Disposal Restrictions

MW *must* meet the LDR treatment standard requirements in Nevada Administrative Code (NAC) 444.8632 (incorporating Title 40 CFR 268.40 and 268.45), including standards for underlying hazardous

constituents (UHCs). Waste meeting the alternative LDR treatment standard for contaminated soil, as defined by NAC 444.8632 (incorporating Title 40 CFR 268.49), is also accepted.^{111,112}

LDR notifications/certifications *shall* be made in accordance with Section 6.3.4.^{111,112}

3.3.4.1 *Determinations of Equivalent Technology*

MWs that have been treated based on a Determination of Equivalent Technology (DET) will require NDEP concurrence on the DET. NDEP will require the DET documentation, including EPA regions' determinations. Any documentation of state-of-generation involvement in the DET should also be submitted.¹¹²

3.3.5 Waste Form Criteria/Prohibited Items

MW accepted for disposal *must* meet the general waste form criteria as described in Section 3.1 except as indicated below.¹¹²

3.3.5.1 *Free Liquids*

Free liquids *must* be absorbed, stabilized, or otherwise removed from the waste. Containerized free liquids such as ampules, small articles that contain free liquids required for the article to function (e.g., batteries or capacitors), are acceptable.¹¹²

3.3.5.2 *Sorbents*

Sorbents *must* be nonbiodegradable and identified on the MWP.¹¹² Examples of nonbiodegradable sorbents according to Title 40 CFR 265.314(f) include:

- Inorganic minerals, other inorganic materials, and elemental carbon (e.g., aluminosilicates, clays, smectites, Fuller's earth, bentonite, calcium bentonite, montmorillonite, calcined montmorillonite, kaolinite, micas (illite), vermiculites, zeolites; calcium carbonate (organic free limestone); oxides/hydroxides, alumina, lime, silica (sand), diatomaceous earth; perlite (volcanic glass); expanded volcanic rock; volcanic ash; cement kiln dust; fly ash; rice hull ash; activated charcoal/activated carbon.

- High molecular weight synthetic polymers (e.g., polyethylene, polypropylene, polyurethane). This does not include polymers derived from biological material or polymers specifically designed to be degradable.
- Sorbents determined to be nonbiodegradable under: American Society for Testing and Materials (ASTM) Method G21-70, Standard Practice for Determining Resistance of Synthetic Polymer Materials to Fungi; ASTM Method G22-76, Standard Practice for Determining Resistance of Plastics to Bacteria; or OWCS test 301B, CO₂ Evolution.

3.3.5.3 *Compatibility*

Incompatible wastes, or incompatible wastes and materials *shall not* be placed in the same container if such placement: "

- Generates extreme heat or pressure, fire or explosion, or violent reaction;
- Produces uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health;
- Produces uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;
- Damages the structural integrity of the device or facility containing the waste; or
- Through other like means threaten human health or the environment.

3.3.6 MW Package Criteria

In addition to Section 3.2, MW packaged for disposal *must* meet the waste package criteria below:

3.3.6.1 *Marking and Labeling*

In addition to the marking and labeling requirements in Appendix C, MW packages of 416 liters (110 gallons) or less *must* be marked with the following:

- The words, “HAZARDOUS WASTE – Federal Law Prohibits Improper Disposal. If found, contact the nearest police or public safety authority of the U.S. Environmental Protection Agency”;
- Generator’s Name and Address;
- Manifest Document Number.

The marking *must* be durable, in English, displayed on a background of sharply contrasting color, printed or affixed to the surface of the package; or on a label, tag, or sign unobscured by other labels or attachments, located away from any marking that could substantially reduce its effectiveness.⁴⁵

Marking and labeling of the waste packages *must* be for the hazardous and radioactive characteristics of the waste.^{47,6}

3.3.6.2 *Void Space*

Containers of MW *must* be at least 90 percent full when placed in the landfill.¹⁰

Additional information on the mixed waste void space criteria can be found at the following web address:

<http://www.nv.doc.gov/emprograms/environment/wastemanagement/rwap.aspx>

3.3.6.3 *Package Protection*

In addition to the requirements of Section 3.2.10, if a package has been inspected as part of the NTS verification plan, the TID *must* not be removed or altered. The package *must* be loaded and transported to protect the TID from damage.¹⁰

3.3.7 **Analytical Data**

Analytical data used to make MW determinations or LDR certifications *must* be from a DOECAP audited laboratory, or equivalent.¹⁰

3.3.8 **MW Verification**

Verification frequencies and methods for MWPs are determined by the WARP in accordance with RWAP procedures. The methods include: split sampling, field chemical screening, visual inspection and/or Real-

Time Radiography (RTR) at the generator or treatment facility and RTR at the NTS. Verification will be conducted in accordance with RWAP procedures.”

3.3.8.1 MW Verification Frequency

MW verification frequencies will be assigned by the WARP. A minimum of 5 percent of waste containers per MWP *must* be physically screened by either visual inspection or RTR.”

Exceptions to the physical screening requirements *must* be approved by the NNSA/NSO RWAP Manager.”

Unless exempted, a minimum of 10 percent of containers physically screened *must* be chemically screened.” The following wastes are exempted from chemical screening: ”

- Waste subjected to an LDR-specified technology standard
- Hazardous debris
- Chemical-containing equipment removed from service (i.e., ballasts, batteries, etc.)
- MW containing regulated asbestos
- Waste from the cleanup of spills or a release of a single substance or known material (e.g., material for which a Material Safety Data Sheet [MSDS] can be provided)
- Confirmed noninfectious waste generated from laboratory tissue preparation, slide staining, or fixing processes.
- Waste containing beryllium.

Chemical screening of waste container contents will be performed by RWAP personnel at the generator’s site. If a container is too large to RTR at NTS, the waste will be visually verified at the generator’s site.”

Generators *shall* provide the necessary authorizations, facilities, and personnel to allow for RWAP personnel to perform MW verification at the generator or treatment facility.”

RWAP personnel *must* be provided access to containers and facilities to allow for visual inspection of the contents of packaged containers, performing chemical screening on homogeneous samples of the waste, and split sampling.”

3.3.8.2 *Previously Rejected MW Packages*

Rejected MW packages (parent packages) that are repackaged and/or split into additional MW packages (progeny packages). *must* be traceable to the original package number.¹⁰ In addition to the transportation and shipping requirements of Section 6.0, generators *shall* notify NNSA/NSO prior to shipping previously rejected MW packages (parent and/or progeny) back to NTS.¹¹

3.4 WAC Deviations

Deviations from the NTSWAC that do not compromise the performance objectives for the disposal site, NTS Documented Safety Analysis requirements and limitations, or violate permit requirements may be accepted. The following information *must* be included with the WP: the NTSWAC requirement that cannot be met; the justification for not meeting the requirement; the duration of the deviation, if applicable; and the action plan to correct the deviation, if applicable.¹²

Example:

Requirement: NTSWAC, Revision 6, Section 3.2.5, Strength, requires that the disposal package *must* be capable of supporting a uniformly distributed load of 16,477 kg/m² (3.375 lbs/ft²).

Justification: Two 4- x 4- x 7-ft metal boxes (#33248 and # 33798) do not meet the NTSWAC strength requirement. The boxes contain contaminated soil from a remediation project. Because of ALARA concerns, the generator seeks to avoid unnecessary exposure to personnel during repackaging by allowing the waste to remain in the boxes. The boxes will be identified by marking "Box Does Not Meet Strength Requirement" on the tops of each container. Shipping and handling procedures provide details about these containers. The WCO certification checklist will ensure that the markings are applied and documented.

Duration: The duration of the deviation is one time only (boxes 33248 and 33798).

Corrective Action: None required.

4.0

Waste Characterization



Area 3 Radioactive Waste Management Complex, Nevada Test Site

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4.0 Waste Characterization

Generators *must* characterize waste destined for disposal at NTS.^{6,16} When similar requirements are listed in separate regulations, the most stringent *shall* be met.^{7,3} Waste will not be accepted until the generator, through sampling and analysis, process knowledge (PK), or a combination of both, demonstrates the waste to be LLW that meets the WAC requirements in Section 3.0. For waste characterized as MW, generators *must* demonstrate that the MW meets the applicable Title 40 CFR LDR and WAC.^{3,10} Generators *shall* characterize waste with sufficient accuracy to permit proper segregation, treatment, storage, and disposal.^{5,16} The characterization methods and procedures employed by the generator *shall* ensure that the physical, chemical, and radiological characteristics of the waste are recorded and known during all stages of the waste management process.¹⁶ Methods selected by the generator for waste characterization *shall* undergo a documented peer review.³ The Data Quality Objectives (DQOs) process, or a comparable process, *shall* be used for identifying characterization parameters and acceptable uncertainty in characterization data.^{6,17}

Generators *must* prepare and submit a WP for each waste stream which provides NNSA/NSO with a summary of waste characterization information.^{6,7,22,7,5} Generators *shall* provide waste characterization documentation that supports the WP (see Appendix E for radiological requirements) to NNSA/NSO for review during facility evaluations or upon NNSA/NSO request.^{6,15,7,5}

Waste characterization documentation *shall* be traceable to the WP and disposal packages.⁷ Isotopic distributions and corresponding activity concentrations *shall* be traceable to the package.^{7,3} Traceability to a parcel level *shall* be required if characterization is being conducted at that level (e.g., individual sealed sources, bags, or components characterized on an individual basis, but packaged together).^{7,3} Waste characterization may be conducted using PK, sampling and analysis, or a combination of both. The following sections provide specific information and requirements for these characterization methods.

4.1 Process Knowledge

PK is a characterization technique that relies on the generator's knowledge of the physical, chemical, and radiological properties of the materials associated with the waste generation processes. It includes knowledge of the fate of those materials during and subsequent to the process, and the associated administrative controls. PK sources include, but are not limited to, the following programmatic and waste stream-specific components:

- historic records, including historic analytical data
- facility maps delineating waste generation areas
- description of waste generating operations
- system descriptions

- plans and drawings
- areas and/or buildings where each waste stream is generated
- material inputs, including MSDSs
- manufacturing specifications
- mass balance documentation
- literature searches
- living memory (documented interviews)
- laboratory notebooks and project reports
- process logs and batch records
- procedures

Historical data should be routinely verified through controlled analytical methods such as verification sampling and analysis; however, if the data can successfully undergo a full validation, this verification may not be necessary.

When PK relies on living memory, the individual's knowledge *must* be documented and signed by both the interviewer and the interviewee.⁷⁹ For telephone interviews, a statement outlining relevant information *must* be signed by the interviewer (and interviewee, if possible).⁷⁹

PK can be used for waste characterization in lieu of sampling and analysis if the generator's PK is of sufficient detail to qualify as acceptable. Acceptable PK is based on detailed information on the waste obtained from existing waste analysis data, studies on similar waste generating process(es), or detailed information relative to the properties of the waste that are known due to site-specific and/or process-specific factors.

Generators *shall* conduct a documented evaluation of compiled PK sources used for waste characterization.⁷⁹ The generator's evaluation *shall* identify uncertainties, inconsistencies, limitations, and usefulness.⁷⁹

4.2 Sampling and Analysis

Generators *shall* ensure that all data be scientifically valid, defensible, and of known precision and accuracy to identify the physical, chemical, and radiological properties of the waste.⁷⁹ When waste streams are characterized by sampling and analysis, the process *shall* be controlled and documented.⁶²¹ Propagation of error throughout the sampling and analytical process shall be evaluated and considered when ascertaining usability of data for characterization of waste.⁶¹⁶ Generators should determine the appropriate analysis (total vs. TCLP) for RCRA hazardous and UHC determinations. These results *shall* be reported in the waste profile on Table B-1 (page 4-5).⁷⁹ See the profile instructions for further details on reporting sampling results.

Generators *shall* demonstrate that controls are in place to trace each sample number to a specific package number.⁷⁹ All sampling and analysis efforts,

including verification and confirmatory sampling. should include screening analyses such as gamma spectroscopy, gross beta, and gross alpha.

NNSA/NSO may evaluate sampling and analysis documentation to ensure that: 1) samples will be representative of the waste inventory, 2) appropriate analytical procedures are used, and 3) sufficient quality controls have been established to allow measurement and documentation of data quality.

4.2.1 Data Validation

Data validation is a comprehensive analysis and review of analytical data conducted against a set of predetermined criteria and leading to the assignment of relative usability (i.e., completely usable, estimated value, unusable) for each analytical result. The validation criteria should be developed using the DQO process and depend upon the type(s) of data involved and the purpose for which the data are collected. Data *shall* be validated by technically qualified personnel who are independent of those performing the analyses.”

When sampling and analysis is used as a method of characterization, data validation *shall* be conducted on a portion of chemical and radiological data per NTS waste stream, prior to use of the data for characterization purposes.”

The WP instructions require completion of an analytical results summary (Table B-1) for inclusion in the WP. As required by the above paragraph, data validation will be performed on a portion of the data used to complete the table. If in subsequent sampling events, variations of analytical results remain less than 80 percent of the applicable regulatory threshold, revision of Table B-1 is not required. If the results ever exceed 80 percent of the regulatory threshold, it will be necessary to revise the table and submit appropriate validation summary reports (case narratives) for the values entered in the revised table.

Validation summary reports *shall* cite the guidelines or procedures used to validate the data and *shall* include, at a minimum:”

- Method/Analysis-general discussion of the data set, including preparation/dilutions, initial and continuing calibration, holding times.
- Method blank Analysis
- LCS Analysis
- Surrogate Spike Recoveries

Nevada Test Site Waste Acceptance Criteria

- Data Qualifier Codes
- Discussion/Statement of data quality

Nevada Test Site Waste Acceptance Criteria

Table B-1 Analytical Results

	Statistical Mean	Upper Confidence Limit		Statistical Mean	Upper Confidence Limit
TCLP Metals:			TCLP Semivolatiles:		
Arsenic	_____	_____	o-Cresol	_____	_____
Barium	_____	_____	p-Cresol	_____	_____
Cadmium	_____	_____	m-Cresol	_____	_____
Chromium	_____	_____	Cresol	_____	_____
Lead	_____	_____	Dinitrotoluene	_____	_____
Mercury	_____	_____	Hexachlorobenzene	_____	_____
Selenium	_____	_____	Hexachloro-1,3-butadiene	_____	_____
Silver	_____	_____	Nitrobenzene	_____	_____
TCLP Volatiles			Pentachlorophenol	_____	_____
Benzene	_____	_____	2,4,5-Trichlorophenol	_____	_____
Carbon Tetrachloride	_____	_____	2,4,6-Trichlorophenol	_____	_____
Chlorobenzene	_____	_____	Hexachloroethane	_____	_____
Chloroform	_____	_____	TCLP Pesticides and Herbicides:		
1,4-Dichlorobenzene	_____	_____	Chlordane	_____	_____
1,2-Dichloroethane	_____	_____	2,4-D	_____	_____
Methyl ethyl ketone	_____	_____	Endrin	_____	_____
Pyridine	_____	_____	Heptachlor and Hydroxide	_____	_____
TCLP Volatiles			TCLP Pesticides and Herbicides:		
Tetrachloroethylene	_____	_____	Lindane	_____	_____
Trichloroethylene	_____	_____	Methoxychlor	_____	_____
Vinyl chloride	_____	_____	Toxaphene	_____	_____
Dichloroethylene	_____	_____	2,4,5-TP (Silvex)	_____	_____

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5.0

Quality Assurance Requirements for Waste Certification Program



Area 5 Radioactive Waste Management Complex Workers Labeling Boxes, Nevada Test Site

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5.0 Quality Assurance Requirements for Waste Certification Program

RWAP quality requirements are written in accordance with DOE Order 414.1, "Quality Assurance"; Title 10 CFR 830.122, "Quality Assurance"; and NNSA/NSO Policy unless otherwise noted by superscript.

Generators *shall* develop, approve, and maintain a QAP demonstrating compliance to the NTSWAC: DOE Order 435.1, "Radioactive Waste Management"; DOE Order 414.1, "Quality Assurance"; and/or Title 10 CFR, 830.122, "Quality Assurance."

Generators *shall* submit a controlled copy of their approved QAP to the RWAP Manager. Generators maintaining a controlled WCPP on file with RWAP are not required to submit their site QAP. Generators with an approved WCPP that choose to utilize their site QAP in lieu of maintaining a WCPP *must* notify the RWAP Manager and formally submit their site QAP for review and approval.

Generators *must* complete a NIC and submit it to the RWAP Manager. The NIC *must* describe and/or reference each site's quality-affecting procedures, processes, or methods that demonstrate compliance and/or implement the specified NTSWAC criteria. Examples of procedures, processes, or methods may include:

- Plans and procedures from supporting organizations that satisfy the quality criteria in Section 5.0 of the NTSWAC.
- Waste characterization data.
- Documents demonstrating compliance to the waste criteria and packaging criteria in Section 3.0 of the NTSWAC.
- Documents assuring conformance to marking, labeling, electronic reporting, and forms requirements.

An electronic copy of the NIC and instructions are available from NNSA/NSO.

The WCO *shall* perform an annual review of the NIC to ensure that procedures, processes, and methods referenced in the NIC are current. Upon completion of the review, the WCO *shall* sign and submit a current NIC to the RWAP Manager.

5.1 Program

Generators *must* develop an organizational chart specific to the waste management and support organizations. The organizational chart *must* depict the organizational structure, functional responsibilities, levels of authority, and interfaces necessary to manage the waste certification program. The chart *must* identify the organizations that generate, characterize, package, inspect, assess, ship, and perform support functions (i.e., procurement, document control, RCRA oversight, and training).

Each generator *shall* designate a WCO and alternate(s), if applicable, who are responsible for verifying implementation of the WCPP or QAP. The WCO *must* ensure that the waste certification processes, including waste, waste packages, supporting data, and waste shipments, comply with the requirements of the NTSWAC. The alternate WCO *must* report to the primary WCO for certification activities. The organizational structure *must* ensure the independence of the WCO, alternates(s), and package certifiers from the waste generator and allow for direct access to a management level (including the local DOE field office), having sufficient authority and organizational freedom, if necessary, to ensure compliance with the LLW program.

Generators may delegate the responsibility for signing the PCL to Package Certifiers; however, the Package Certifiers *must* report directly to the WCO for certification activities.

5.2 Personnel Training and Qualification

Personnel *shall* be trained and qualified to perform their assigned functions and tasks. The level and type of training *shall* be evaluated and documented. Training *shall* be commensurate with the importance of the task and the activities affecting compliance with the NTSWAC waste certification activities. Personnel *must* be provided training to ensure that job proficiency with established requirements is maintained. Methods and records *shall* be specified to ensure training of personnel is current and maintained.

5.3 Quality Improvement

Process controls to detect and prevent quality problems and verify conformance to specified requirements *must* be established and implemented. Performance of quality improvement processes *must* be documented.

Control of nonconforming components and processes *must* provide for the identification, documentation, evaluation, segregation (when practical), disposition, and notification to the affected organizations, including the WCO. Nonconforming components *must* be conspicuously labeled, tagged, or otherwise marked to ensure removal from the waste certification process and prevent inadvertent use.

The disposition of nonconforming components, services, and processes *must* be reviewed for technical justification and disposition by authorized personnel. When nonconforming conditions are identified that affect the quality of previously shipped waste, NNSA/NSO *must* be notified.

A process *shall* be established for the identification and timely correction of quality problems. The root cause, corrective action, action to prevent recurrence, and estimated completion date *must* be documented. The WCO and appropriate levels of management *must* be involved in the corrective action process and the corrective actions tracked until successful resolution can be demonstrated.

5.4 Documents and Records

Activities affecting the quality of the waste certification program *must* be prescribed and performed in accordance with written instructions, procedures, or drawings and available to those performing the work. A document control system *shall* be established to assure that these documents are prepared, reviewed, approved, controlled, and revised.

The WCO *shall* document the review and concurrence of procedures (including revisions) critical to waste certification activities (i.e., generation, packaging, inspection, characterization, certification, etc.).

The records system *shall* be defined and implemented in accordance with written instructions, procedures, or other documentation.

Records documenting compliance with waste certification criteria *shall* be specified, prepared, reviewed, and signed by authorized personnel.

Records *shall* be compiled into a records management system that includes provisions for transmittal, distribution, retention, handling, correction, disposition, and retrievability. Completed records *must* be protected from damage, loss, and deterioration.

The generator *shall* maintain records for time periods equivalent to on-site records retention requirements, but not less than three years (or for time periods designated by other regulatory authorities).

5.5 Work Processes

Work *must* be planned and performed to established technical standards and administrative controls using approved instructions, procedures, or other appropriate means.

Processes important to waste certification activities *must* have controls or verification steps identified as part of the operating procedures.

Controls *shall* be established to ensure that the traceability of waste from the point of generation through shipment is maintained. Waste characterization documentation *must* be traceable to the exact package in which waste was placed. Waste containers *must* be controlled through the life cycle of the component (e.g., receipt, handling, storage, packaging, and shipping) to prevent damage, loss, or deterioration.

Components used in the certification process such as waste containers, liners, sorbents, and solidifiers *shall* be controlled to ensure that only correct and acceptable items are used. Identification *must* be maintained on items or documents traceable to the items.

Measuring and Test Equipment (M&TE) used for process monitoring or data collection *must* be uniquely identified, controlled, and calibrated. Records of calibration *shall* be maintained, traceable to the equipment, and the equipment suitably marked to indicate calibration status. The M&TE marking *must* include a unique identification, date of calibration, calibration due date, and any limitations. Calibration equipment for M&TE *shall* be traceable to a nationally recognized standard or equivalent means to assure accuracy.

Testing and validation of computer programs and verification of data results from those programs (i.e., PSDR data, radioactivity calculations) *shall* be conducted and documented.

5.6 Design

Structures, Systems, and Components (SSCs) designed and/or constructed to ensure that waste will satisfy certification requirements *must* be designed using sound engineering/scientific principles and standards and performed in accordance with established design processes.

Design adequacy of SSCs *shall* be verified or validated by qualified personnel other than those who initiated the design. Verification and validation of SSC designs *must* be completed and approved prior to implementation of the design or design changes.

Design interfaces *shall* be identified and controlled. Waste generators *shall* document their review of product or process designs (e.g., waste containers, sorbents, waste treatment operations) when performed by others (e.g., suppliers or other generators) to ensure that they conform to established requirements and end-use application.

Design changes *shall* be approved commensurate with the same control measures that were applied to the original design.

5.7 Procurement

Components and services critical to the waste certification program *must* be procured under a controlled and documented system. Procurement documents *shall* identify applicable technical requirements such as drawings, specifications, codes, standards, regulations, tests, inspection and acceptance criteria, and certification records.

Procurement documents *shall* be reviewed and approved by authorized personnel to ensure that they contain appropriate references and technical requirements. Changes to procurement documents *must* receive the same degree of review and approval as the original documents.

Selection of suppliers providing components and services critical to the waste certification program *must* be evaluated and selected on the basis of specified criteria (e.g., waste packaging). The methods of evaluation (i.e., audits, surveillance, source inspection, receipt inspection, third party audits) *shall* be established and provide adequate confidence that the selected supplier can meet the established requirements. When third-party audits are used to qualify a supplier, a documented evaluation of the report *must* be performed by a qualified Lead Auditor identifying the activities, findings, conclusions, and basis for qualification.

Suppliers of components (e.g., off-the-shelf sorbents) that are tested or verified by the purchasing organization for conformance to technical requirements may not need to be evaluated (audited), provided the testing demonstrates the procured component conforms to design requirements. Conformance testing *must* be documented.

A process to ensure approved suppliers continue to provide acceptable components and/or services *must* be established and implemented. Methods of evaluation *shall* be specified and documented.

5.8 Inspection and Acceptance Testing

Inspection and testing of components, services, and processes critical to the waste certification program *must* be conducted using established acceptance and performance criteria. Inspections *must* be performed by qualified personnel having no responsibility for the work activity being inspected.

Receipt inspections *must* be performed to verify conformance of components received to the procurement documents and design criteria.

In-process inspections, including waste container pre-use inspections and waste packaging activities, *shall* be conducted throughout the waste certification process.

Final inspections *shall* be conducted to verify conformance of the waste, containers, and waste certification process to the NTSWAC prior to shipment of the waste.

Records of inspection *shall* identify the type of inspection, component(s), services, or process inspected, date of inspection, inspector, inspection results, and action taken if nonconforming conditions are identified.

5.9 Management Assessment

Management of Waste Certification Programs *shall* periodically assess their management processes to ensure that conditions which could preclude the organization from achieving its objectives are identified and corrected. Management assessments *shall* be documented in a final report and issued to appropriate organizations, including the WCO for review.

5.10 Independent Assessment

Waste certification programs *must* be independently assessed (audit and surveillances) annually to verify compliance with applicable quality program requirements and to promote process improvement. A signed copy of the independent assessment report *shall* be forwarded to the RWAP Manager upon completion of the assessment.

Surveillances may be accumulated and used in lieu of the annual audit provided they have been conducted within 12 months of the last annual audit or surveillance roll-up, and encompass the entire waste certification program and supporting elements. When surveillances are used as the annual assessment, a final report *shall* be prepared and approved by a qualified Lead Auditor identifying the activities, conclusions, findings, and corrective actions initiated during each surveillance.

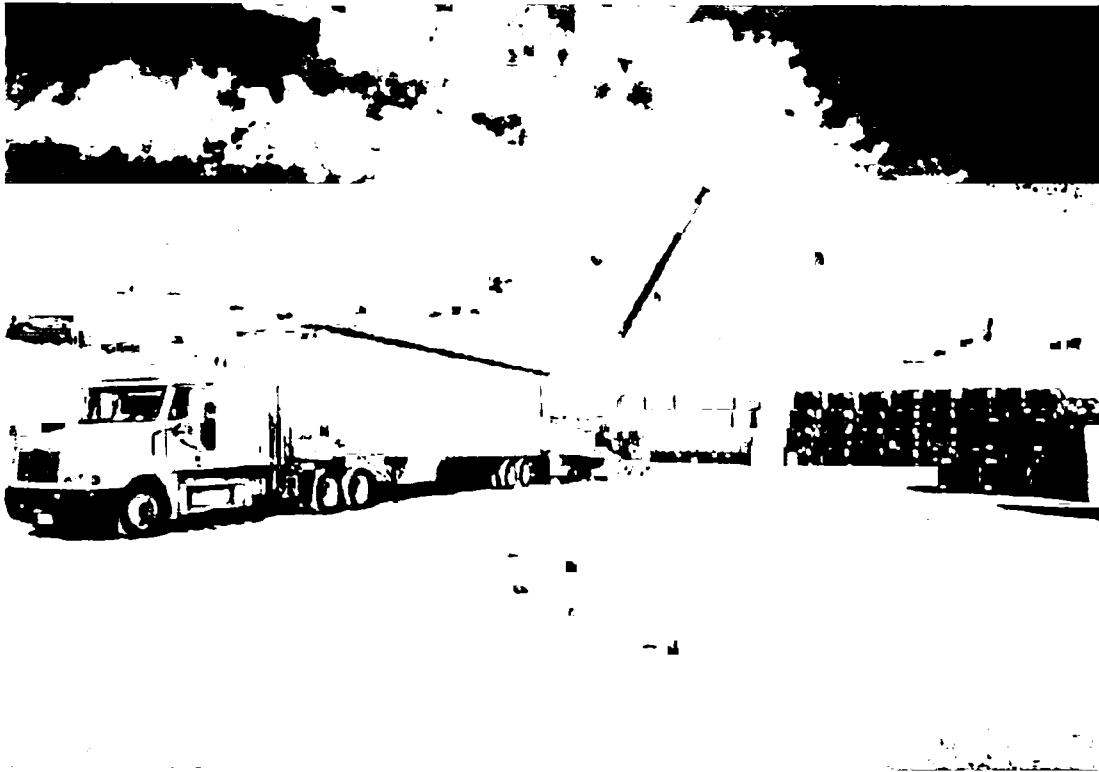
Audits and surveillances *shall* be planned, scheduled, and conducted in accordance with a documented and approved process. The WCO and/or supporting oversight organizations *shall* schedule and conduct periodic surveillances of activities critical to the waste certification program.

Personnel performing assessments *must* be qualified and knowledgeable in the areas being assessed. Assessment personnel *must* be independent of the assessed areas and have sufficient authority and freedom to effectively carry out the assessment activities.

Results of assessment activities (audits and surveillances) *must* be documented, approved, and reported to responsible management, including the WCO. Deficiencies identified during an assessment activity *shall* be tracked until acceptable resolution is achieved and verified.

6.0

Waste Transportation and Receipt Information



Waste placement in the Area 5 Radioactive Waste Management Complex, Nevada Test Site

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6.0 Waste Transportation and Receipt Information

This section provides general guidelines that generators follow to expedite waste transportation and receipt.

6.1 Shipment Scheduling and Limitations

NTS Operations may impose schedule limitations on waste profiles that have specific handling and/or processing requirements. "Classified Waste," ALLW, and MW shipments may have a shipment frequency limitation to accommodate additional processing needs. (For example, classified shipments may be limited to four shipments per day per generator, with a generator limited to Tuesday and Thursday arrivals.) All scheduling limitations *must* be made through NTS Operations.⁷⁶ Containers that are to be returned to the generator (e.g., intermodal containers, shipping casks, etc.) may have shipment scheduling limitations (i.e., due to weather conditions), and this schedule may be modified and/or suspended as warranted.

NTS Operations may occasionally extend operating hours (i.e., Fridays). During these extra periods, NTS Operations will designate which types of shipments they will receive on the given date (e.g., on the third Friday in September, the NTS will accept cargo containers of standard LLW and DOT nonregulated bulk).

6.2 Shipping Arrangements

After a generator secures written approval from the NNSA/NSO AMEM to send waste to an NTS RWMC, the generator *shall* contact NTS operations to arrange for transfer of the waste and accompanying records.⁷⁵ The operator of the NTS coordinates waste shipment transfers at NTS.

6.2.1 Waste Receipt and Handling at NTS

To expedite waste receipt and handling at NTS, waste generators *shall*, at a minimum, comply with the following:⁷⁶

- Prior to departure of a waste shipment to the NTS, the generator *shall* attach security seals to the shipping trailer's door latches or to each package if not enclosed in a trailer.
- The generator *shall* enter the following pre-notification information on the HAZTRAK database.⁷⁵ If the generator is unable to enter information on the HAZTRAK, fax the NTS Advance Shipment Notification (see Appendix C.4) to the operator of the NTS at (702) 295-6852. Shipments to the NTS *must* be entered in the HAZTRAK database prior to 1500 NTS local time, at least one working day prior to shipment arrival (e.g., shipments scheduled to arrive

Monday *must* be entered in HAZTRAK by 1500 NTS local time on the previous Thursday).⁷⁵ If the shipper is faxing the NTS advance shipment notification to the NTS, the fax *must* be received prior to the cutoff time and date.⁷⁶ For “classified waste,” having classified shipping documents, generators *shall* contact Wackenhut Services at (702) 295-7028.⁷⁶ For all shipments, the following information *must* be provided:⁷⁶

- Date and time shipment departed generator site
- Estimated date and time of arrival (ETA) at NTS
- Shipment number, shipper’s name, shipper’s contact number
- Carrier, driver’s name (*must* be a U.S. Citizen), driver’s license number and state (information must be legible)
- Trailer number, seal number(s), DOT “Proper Shipping Name(s)”
- Number of packages, package type (boxes, drums, cargo containers, burrito wraps, etc.), and gross weight
- Waste stream number and description of waste

If the shipment’s ETA should change, the generator *must* notify NTS operations and *shall* enter the changes on the HAZTRAK database at the earliest opportunity and provide the new ETA.⁷⁶ Generators unable to update information on the HAZTRAK *shall* notify the NTS by phone at (702) 295- 6811.⁷⁶

The majority of the above information can be found on the “Bill of Lading.”

- For waste shipments containing regulated asbestos, the 7-day advance notification form *must* be faxed to NNSA/NSO; see Section 3.1.15.

6.2.2 Consignment of Shipments

Consign waste shipments to:

National Security Technologies, LLC (NSTec)
For U.S. Department of Energy
Waste Management
Nevada Test Site - Zone 2
Mercury, NV 89023

Because unclassified and classified shipments are processed differently, they *must* be shipped separately (i.e., on different trailers and have different shipment numbers and separate shipping papers).⁷ This also applies to ALLW and MW (i.e., shipped separately from standard LLW). Under small-volume conditions, combined shipments can be arranged by contacting the operator of the NTS.

6.2.3 Receiving Hours

The hours for receiving waste at the RWMC are from 0700 to 1400 hours, Monday through Thursday, except holidays. Tractor-trailers arriving between 0700 and 1400 hours (Monday through Thursday) will be allowed to remain at the Area 3 or 5 RWMC until their delivery is complete. If a shipment arrives between 1400 and 0700 hours, tractor-trailers will be required to exit the NTS to return after 0700 hours for off-loading. Shipments may be subject to off-loading delays at any time due to NTS operational schedules.

All shipments to Area 3 or Area 5 RWMC will be verified against a shipment tracking list by a Security Police Officer (SPO) at the NTS main gate. If the shipment tracking number is listed, the shipment will be authorized to enter the NTS. If the shipment is not listed, the SPO will attempt to contact an RWMC official to verify the shipment to authorize entry.

6.3 Shipping Documentation

The following records are required:

6.3.1 Accountable or Special Nuclear Material Shipments

For accountable or special nuclear material shipments, a "Nuclear Material Transaction Report" (DOE/NRC Form 741) *shall* be completed for transfers of nuclear material between facilities having differing Reporting Identification Symbols.⁸ Transaction reports *shall* be sent to: NSTec, P.O. Box 98521, Mail Stop NTS 403, Las Vegas, NV 89193-8521. Forms may be faxed to (702) 295-6852.⁹ Reports should be received at the RWMC prior to the shipment arrival.¹⁰ For additional information, call the RWMC at (702) 295-6811. Contact Wackenhut Services at (702) 295-7028 if the shipping documentation contains classified information.

Generators shipping waste that require a DOE/NRC Form 741 *shall* complete and fax a "Nevada Test Site – Waste RIS VAB Accountable Nuclear Materials Authorization to Ship Waste" form to (702) 295-6337 seven days prior to shipment. Authorization to ship from NTS MC&A *must* be obtained prior to shipping the waste to the NTS. An electronic

copy of the "Nevada Test Site – Waste RIS VAB Accountable Nuclear Materials Authorization to Ship Waste" form is available on the NNSA/NSO website at <http://www.nv.doe.gov/emprograms/environment/wastemanagement/rwap.aspx>.

6.3.2 DOT-Regulated Shipments

For materials regulated by DOT, complete shipping papers with shipper's certification, as required by Title 49 CFR, *must* accompany each shipment.¹¹

A "Uniform Hazardous Waste Manifest" or equivalent state-of-generation manifest, accompanied by the appropriate documentation, *shall* be used when shipping MW.^{12,13} For on-site shipments of MW, an on-site Waste Manifest may be used. The waste profile(s) number associated with the package(s) must be entered on the Uniform Hazardous Waste Manifest or equivalent.

6.3.3 PSDR Submittal

The original completed and signed PSDR, or the original of an equivalent, *shall* accompany each shipment.^{14,15} An electronic version of the PSDR *shall* be transmitted to NTS Operations prior to shipment arrival (E-mail address: wmdata@nv.doe.gov).¹⁶ Shipments *shall not* be accepted if an electronic PSDR is not on file.¹⁷

6.3.4 Additional Certification Statements

An appropriate LLW Certification Statement *shall* be signed by an authorized WCO or Alternate WCO for LLW (see next page for an example of the required LLW Certification).^{18,19,20}

An appropriate LDR Certification Statement *shall* be signed by an authorized WCO or Alternate WCO for MW (see Title 40 CFR 268.7 for information required to be included in an LDR certification/notification).²¹

Low-Level Waste Certification I certify that containers:	
(Container I.D. number(s))	
do not contain hazardous waste as defined in Title 40 CFR 261 or _____ (state-of-generation) hazardous waste regulations:	
(1) according to the results of tests performed in accordance with the requirements as specified in Subpart C of Title 40 CFR 261: and/or	
(2) according to the supporting documentation provided to me about the materials and processes that produced this waste.	
To the best of my knowledge, I believe the information I have submitted is true, accurate, and complete.	
Generator Waste Certification Official (print name/sign)	Date

The LDR certification/notification is required for the initial shipment of the waste stream or when the waste profile/LDR information changes.

6.4 Waste Transportation

Waste shipments consigned to NTS *shall* be made in accordance with applicable DOE, DOT, EPA, state, and local hazardous waste regulations and requirements.⁷³ Generators are responsible for the evaluation of the motor carriers used for transporting radioactive waste. Motor carrier documentation (e.g., past carrier performance, prior evaluations, accident history, vehicle maintenance, etc.) should be reviewed to ensure that the carrier is in compliance with Title 49 CFR, state, and local transportation requirements. If carrier performance has been determined to violate federal, state, or local transportation safety regulations, a

demonstration of corrective action may be required. Failure to initiate corrective action may result in waste refusal at the NTS.

NNSA/NSO *shall* be notified when (1) the motor carrier(s) is being evaluated; (2) the motor carrier route selection is being reviewed; (3) a motor carrier discrepancy, noncompliance, or inadequate performance has been identified; or (4) there is a transportation incident or emergency situation.⁷⁶ This notification will keep NNSA/NSO personnel informed of generator transportation plans, activities, and issues. NNSA/NSO personnel will be able to use the information provided to inform stakeholders of transportation activities of radioactive LLW

destined for the NTS. NNSA/NSO personnel may request to participate in the review of transportation-related information. NNSA/NSO may provide driver advisories to inform generators of local driving conditions (e.g., road construction, detours, safety issues). The generators will be responsible for providing carriers with driver advisories.

Generators *shall* ensure that a National Environmental Policy Act (NEPA) analysis (Title 10 CFR 1021) of the potential waste transportation impacts is completed prior to waste shipment. Transportation of the waste to the NTS should conform to a supporting finding or decision based on the impact analysis. NNSA/NSO encourages approved generators and their carriers to review route selections. Transportation of LLW and MW to the NTS *must* avoid Hoover Dam and Las Vegas.⁷⁷ Routes selected are required to minimize radiological risk. Information on accident rates, time in transit, population density, construction activities, and time of day *must* be considered when determining radiological risk.⁷⁸

6.5 Waste Receipt and Records

The operator of the NTS will be responsible for inspecting radioactive waste shipments upon arrival and maintaining shipment records for NNSA/NSO. The operator of the RWMC will take receipt of the waste after it has been unloaded, inspected, verified, and accepted by RWMC personnel.

6.6 Funding and Forecasting

For information regarding funding and forecasting requirements, contact NNSA/NSO WMP at (702) 295-0672.

6.7 Disposition of Noncompliant Conditions

NTS RWMC and RWAP personnel are responsible for identifying and documenting noncompliance issues (i.e., physical or documentation errors) discovered when conducting MW and LLW receipt and disposal activities. MW and radioactive waste shipments received at the NTS that are not in compliance with requirements may be returned to the generator facility or require resolution

from the generator.

NNSA/NSO *shall* be notified of waste shipment noncompliance issues.⁷⁶ Appropriate action will be initiated based upon the type of the noncompliance and the established program requirements. Generators may be charged for costs incurred for noncompliant waste shipments.

Generators *shall* work with NNSA/NSO and operator of the NTS to ensure rejected shipments/containers of MW are returned to the generator or an alternate treatment, storage, or disposal facility within 60 days from the date of receipt at the NTS.⁷⁷ Generators *shall* be responsible for dispositioning rejected wastes and coordinating transportation and manifesting back to the generator's site or an alternate facility.⁷⁸

6.8 Waste Refusal

NTS operations personnel will be responsible for notifying the appropriate NNSA/NSO personnel regarding any refused radioactive or mixed waste shipments. Reasons for waste shipment refusal include, but are not limited, to failure to have:

- conforming package activity limits as specified in Section 3.2.2.
- sufficient funding transferred to the operator of the NTS to cover the cost of handling disposal, or storage.
- a DOE/NRC Form 741 on file at the NTS prior to the shipment's arrival.
- a signed certification statement accompanying the shipment.
- successful verification performed on the waste containers in accordance with the NTSWAC, NTS Waste Analysis Plan (WAP), and applicable procedures.

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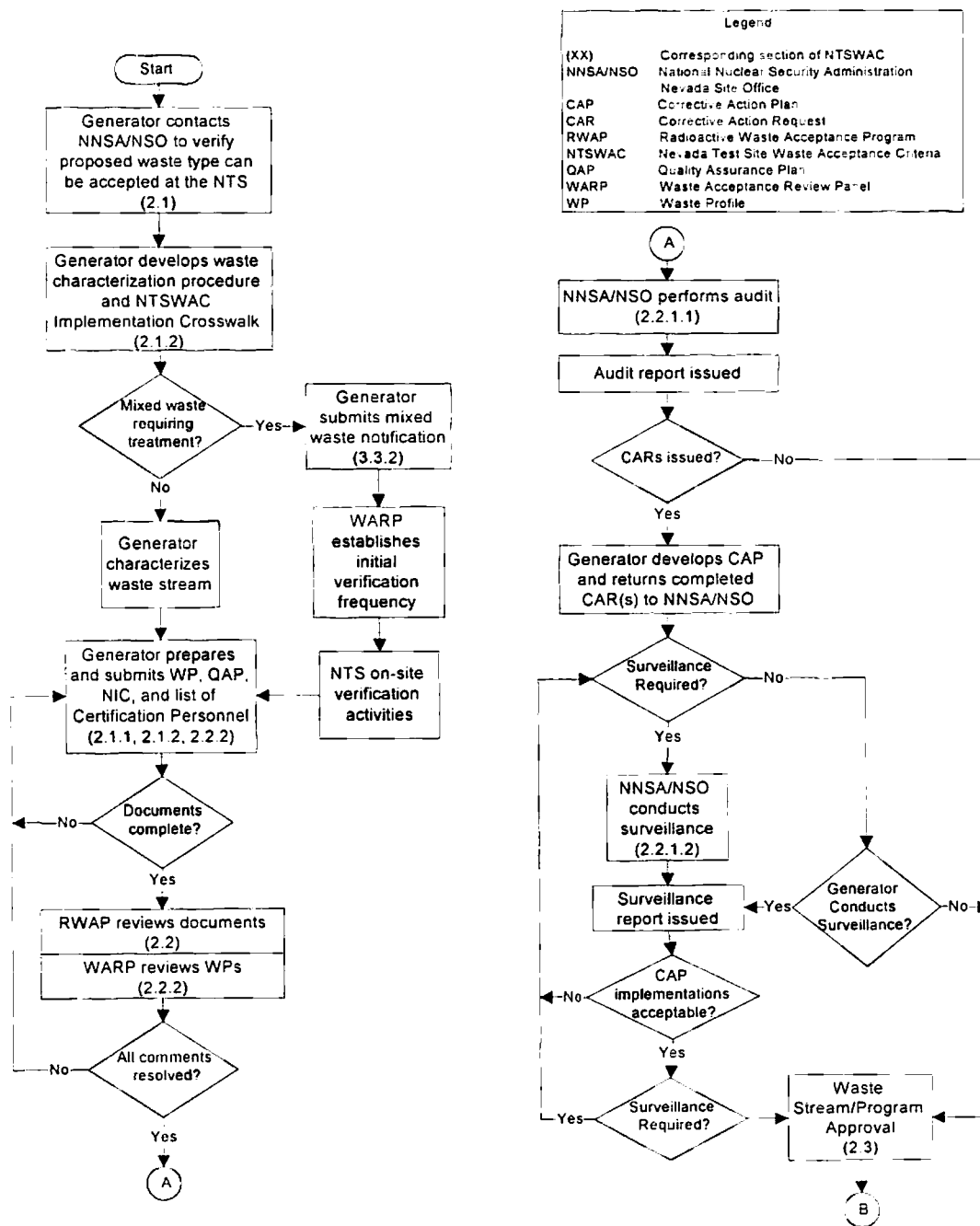
Appendix A

Waste Process
Flow Diagrams

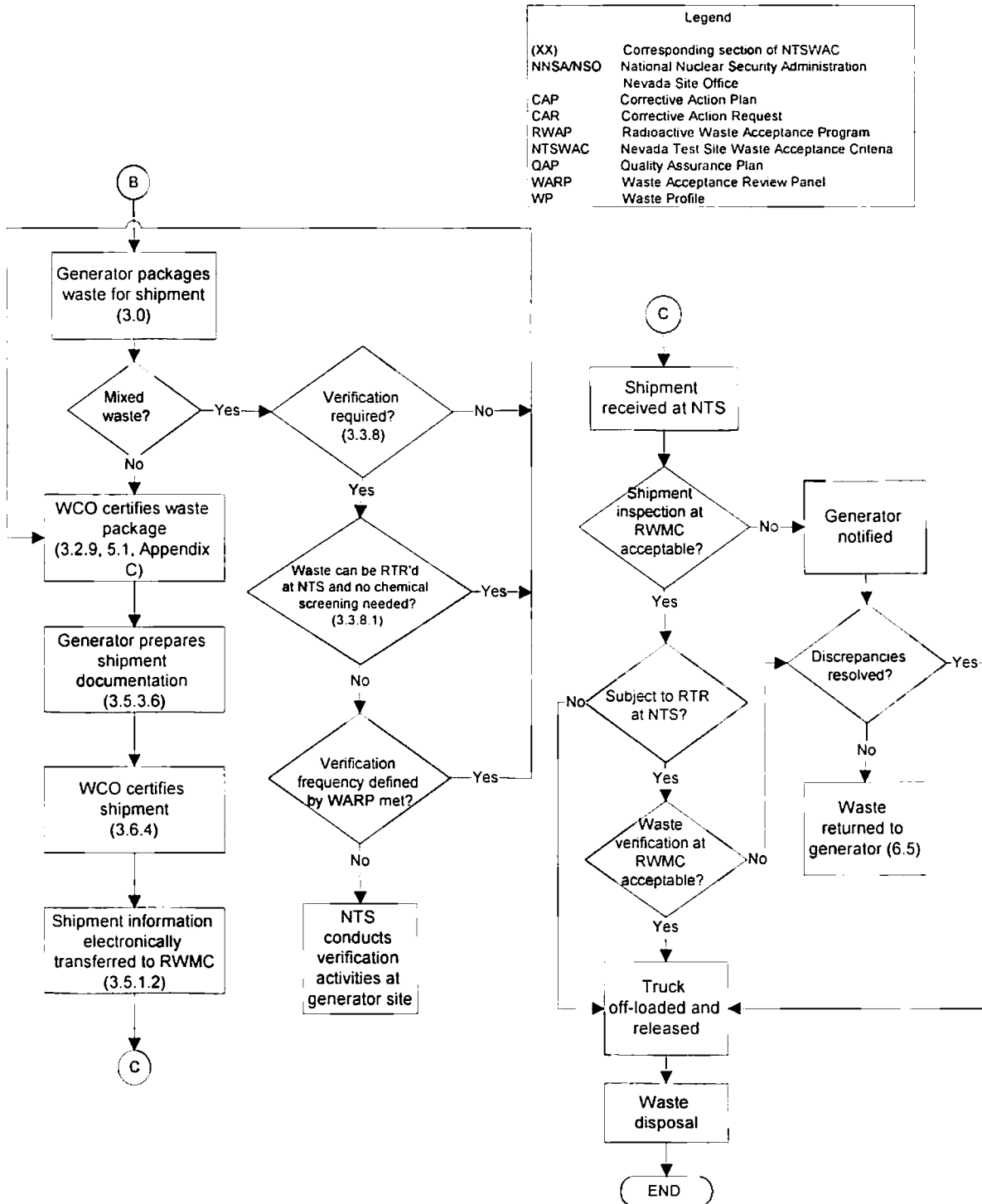
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Appendix A - Waste Process Flow Diagram

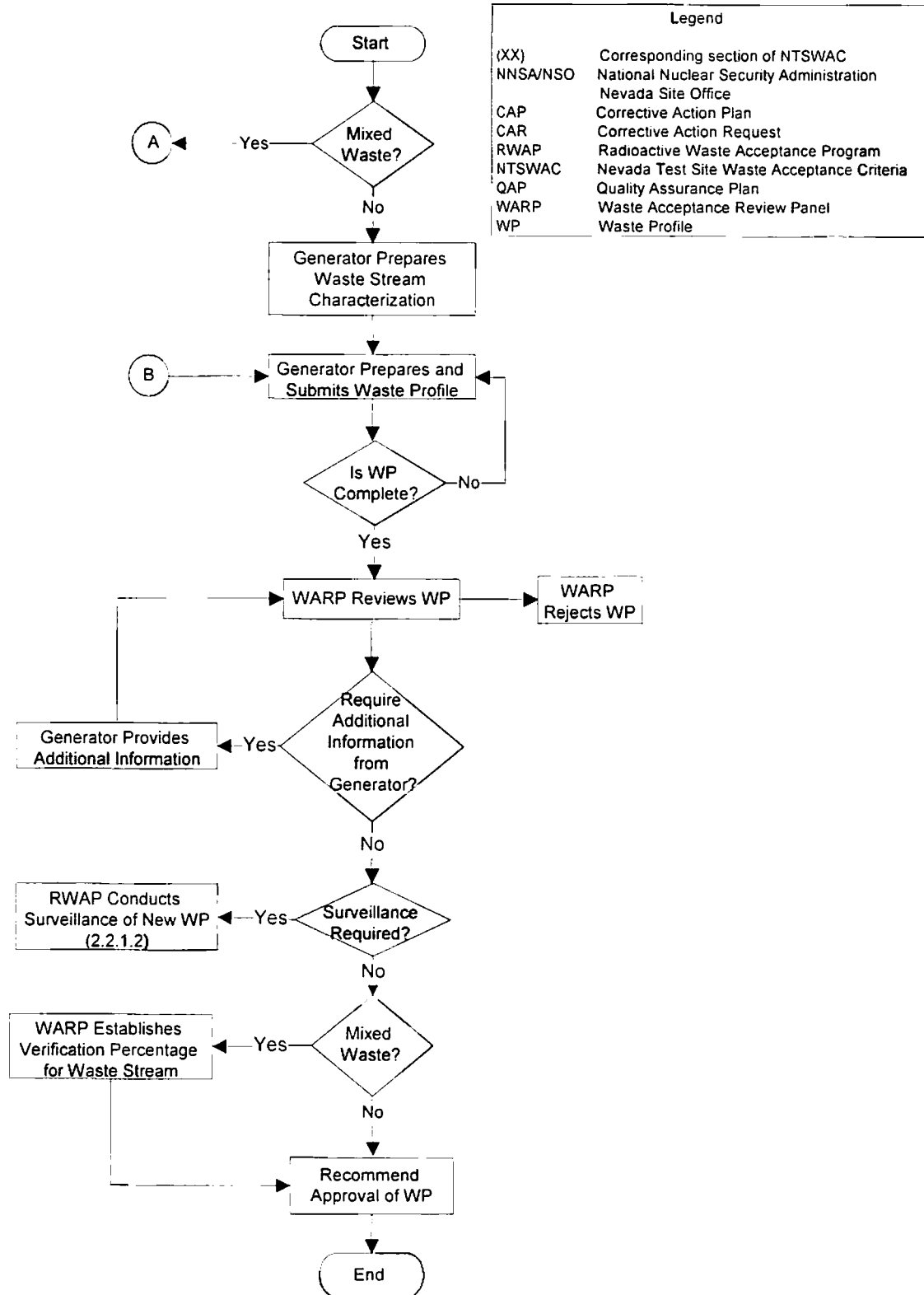
The following diagram identifies key process steps. Operations and logistics may influence the order in which these activities are conducted. Technical support may be requested at any time by the generator (Section 2.5).



Appendix A - Waste Process Flow Diagram (continued)

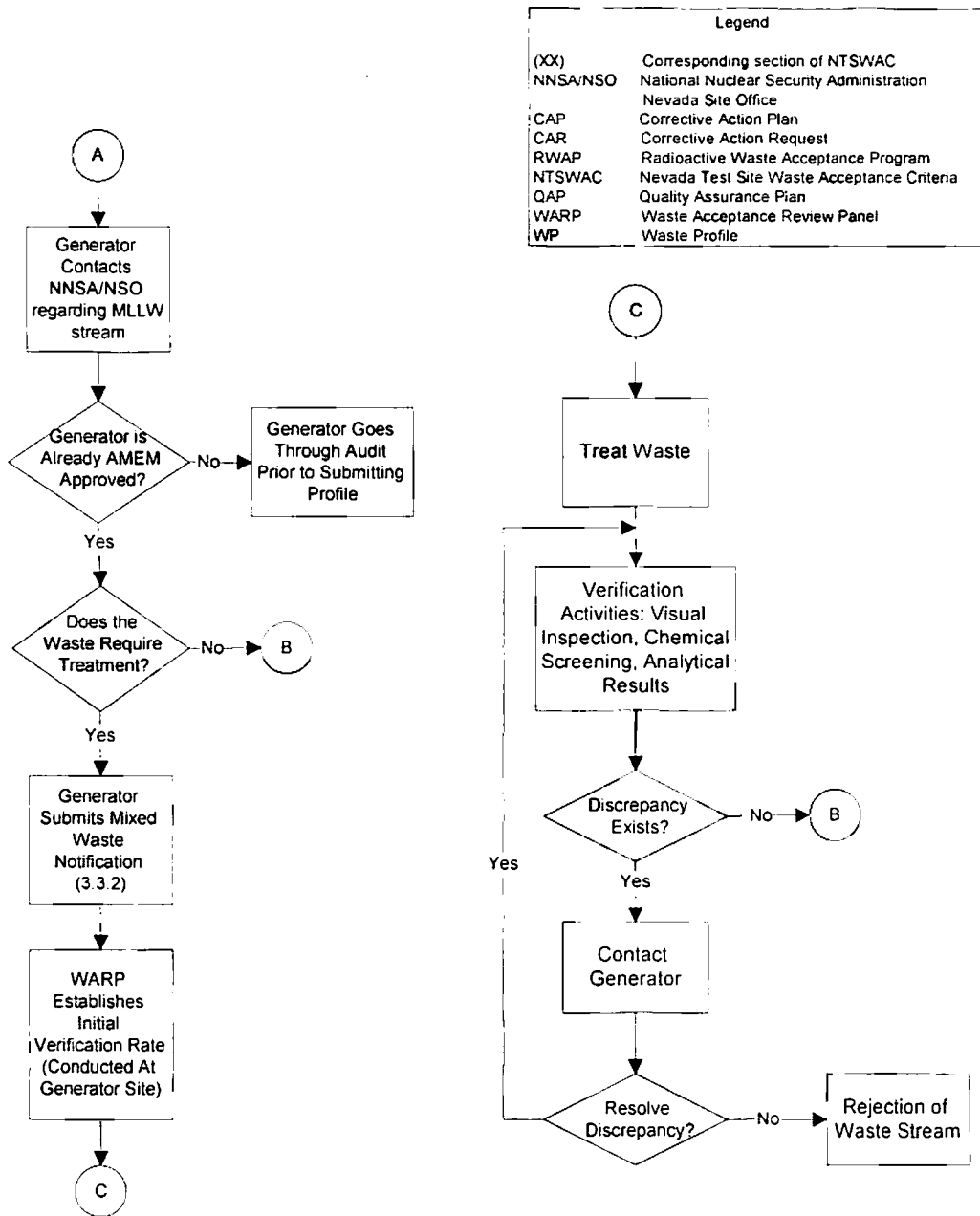


Waste Profile Approval Process



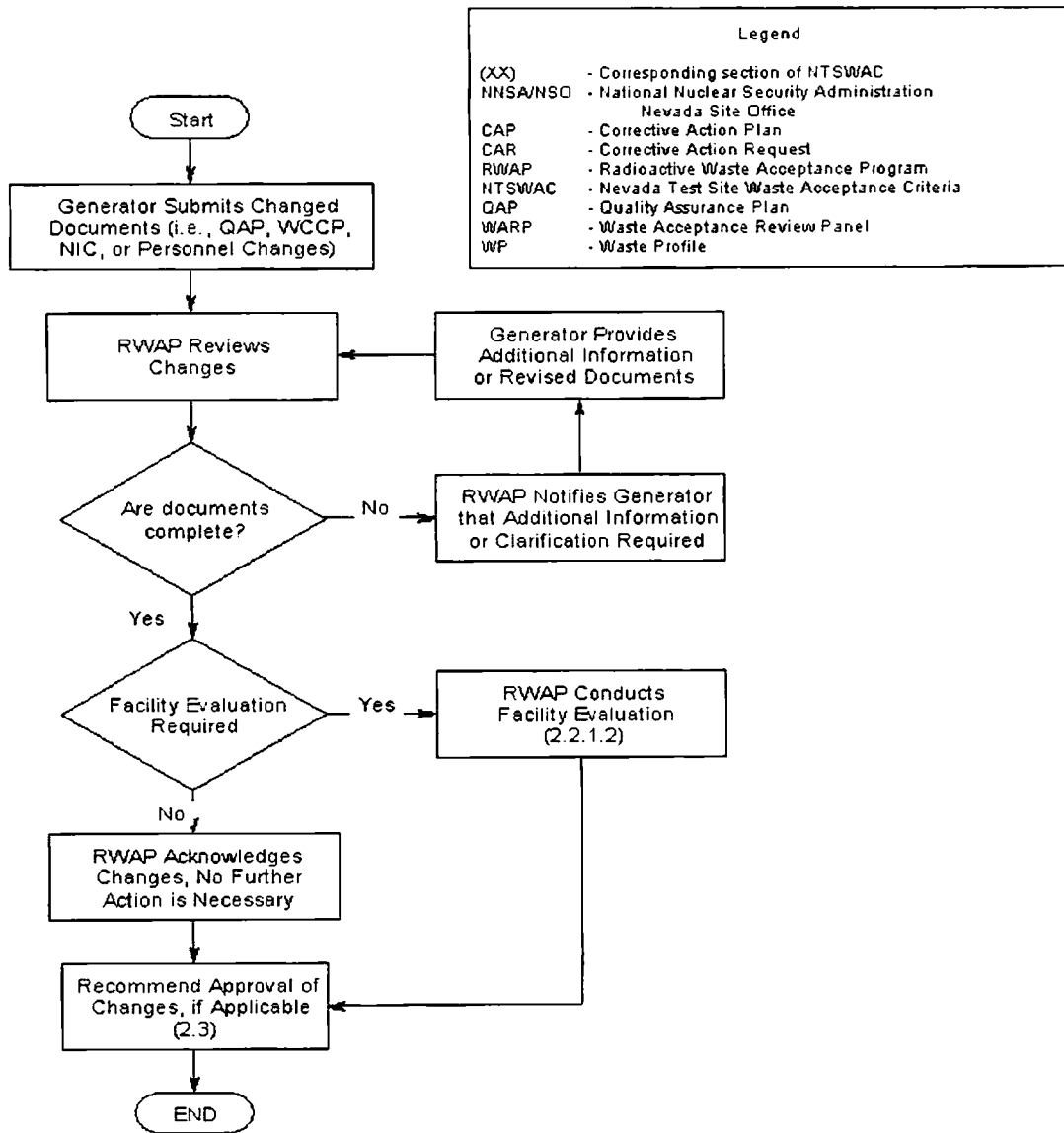
Legend	
(XX)	Corresponding section of NTSWAC
NNSA/NSO	National Nuclear Security Administration Nevada Site Office
CAP	Corrective Action Plan
CAR	Corrective Action Request
RWAP	Radioactive Waste Acceptance Program
NTSWAC	Nevada Test Site Waste Acceptance Criteria
QAP	Quality Assurance Plan
WARP	Waste Acceptance Review Panel
WP	Waste Profile

Waste Profile Approval Process (continued)



Legend	
(XX)	Corresponding section of NTSWAC
NNSA/NSO	National Nuclear Security Administration Nevada Site Office
CAP	Corrective Action Plan
CAR	Corrective Action Request
RWAP	Radioactive Waste Acceptance Program
NTSWAC	Nevada Test Site Waste Acceptance Criteria
QAP	Quality Assurance Plan
WARP	Waste Acceptance Review Panel
WP	Waste Profile

Document and Personnel Changes



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Appendix B

**Plutonium Equivalent Gram (PE-g)
Radionuclide Conversion Factors**

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Plutonium Equivalent Gram (PE-g) Radionuclide Conversion Factors*

* Note: For isotopes not having a direct PE-g conversion factor, the total activity *shall* be treated as Pu-239 for alpha emission and as Cs-137 for beta/gamma emission.

Nuclide CONVERSION FACTORS ---PE-g / Bq		Nuclide CONVERSION FACTORS --- PE-g / Bq		Nuclide CONVERSION FACTORS --- PE-g / Bq	
Ac-224	1.12E-13	Au-194	8.69E-16	Br-80	2.40E-17
Ac-225	9.19E-12	Au-195	1.10E-14	Br-80m	3.34E-16
Ac-226	1.12E-12	Au-198	2.79E-15	Br-82	1.30E-15
Ac-227	5.70E-09	Au-198m	4.12E-15	Br-83	7.59E-17
Ac-228	2.62E-13	Au-199	1.28E-15	Br-84	8.22E-17
Ag-102	2.87E-17	Au-200	7.56E-17	C-11	1.04E-17
Ag-103	4.97E-17	Au-200m	1.87E-15	C-14	1.79E-15
Ag-104	6.05E-17	Au-201	2.28E-17	Ca-41	1.15E-15
Ag-104m	5.32E-17	Ba-126	3.12E-16	Ca-45	5.64E-15
Ag-105	3.97E-15	Ba-128	2.58E-15	Ca-47	5.57E-15
Ag-106	2.81E-17	Ba-131	5.70E-16	Cd-104	6.42E-17
Ag-106m	6.08E-15	Ba-131m	3.94E-18	Cd-107	9.26E-17
Ag-108m	2.56E-14	Ba-133	6.64E-15	Cd-107	9.26E-17
Ag-110m	6.83E-14	Ba-133m	5.29E-16	Cd-109	9.73E-14
Ag-111	5.23E-15	Ba-135m	4.28E-16	Cd-113	1.42E-12
Ag-112	5.64E-16	Ba-139	1.46E-16	Cd-113m	1.30E-12
Ag-115	5.60E-17	Ba-140	3.18E-15	Cd-115	3.59E-15
Al-26	6.77E-14	Ba-141	6.86E-17	Cd-115m	6.14E-14
Am-237	2.04E-17	Ba-142	3.50E-17	Cd-117	3.84E-16
Am-238	7.30E-16	Be-10	3.02E-13	Cd-117m	3.72E-16
Am-239	3.90E-16	Be-7	2.73E-16	Ce-134	6.96E-15
Am-240	1.56E-15	Bi-200	5.60E-17	Ce-135	1.35E-15
Am-241	4.44E-10	Bi-201	1.63E-16	Ce-137	3.56E-17
Am-242	4.97E-14	Bi-202	1.08E-16	Ce-137m	1.20E-15
Am-242m	4.35E-10	Bi-203	7.05E-16	Ce-139	7.71E-15
Am-243	4.44E-10	Bi-205	3.68E-15	Ce-141	7.62E-15
Am-244	1.41E-14	Bi-206	5.57E-15	Ce-143	2.88E-15
Am-244m	5.98E-16	Bi-207	1.70E-14	Ce-144	3.18E-13
Am-245	6.86E-17	Bi-210	1.67E-13	Cf-244	8.44E-15
Am-246	5.38E-17	Bi-210m	6.45E-12	Cf-246	5.10E-13
Am-246m	2.84E-17	Bi-212	1.84E-14	Cf-248	4.31E-11
As-69	4.16E-17	Bi-213	1.46E-14	Cf-249	4.91E-10
As-70	1.08E-16	Bi-214	5.60E-15	Cf-250	2.23E-10
As-71	1.08E-15	Bk-245	3.75E-15	Cf-251	5.01E-10
As-72	3.46E-15	Bk-246	1.46E-15	Cf-252	1.17E-10
As-73	2.94E-15	Bk-247	4.88E-10	Cf-253	2.65E-12
As-74	6.77E-15	Bk-249	1.18E-12	Cf-254	2.50E-10
As-76	3.18E-15	Bk-250	6.42E-15	Cl-36	1.87E-14
As-77	8.97E-16	Br-74	7.34E-17	Cl-38	1.14E-16
As-78	2.27E-16	Br-74m	1.39E-16	Cl-39	9.63E-17
At-207	2.06E-15	Br-75	1.11E-16	Cm-238	4.53E-15
At-211	8.69E-14	Br-76	1.36E-15	Cm-240	6.83E-12
Au-193	2.46E-16	Br-77	2.35E-16	Cm-241	1.25E-13

Nevada Test Site Waste Acceptance Criteria

Nuclide CONVERSION FACTORS — PE-g / Bq		Nuclide CONVERSION FACTORS — PE-g / Bq		Nuclide CONVERSION FACTORS — PE-g / Bq	
Cm-242	1.47E-11	Es-254	3.50E-11	Ge-77	8.97E-16
Cm-243	2.61E-10	Es-254m	4.75E-13	Ge-78	2.44E-16
Cm-244	2.11E-10	Eu-145	2.33E-15	H-3	5.45E-17
Cm-245	4.60E-10	Eu-146	3.31E-15	Hf-170	1.02E-15
Cm-246	3.84E-10	Eu-147	3.01E-15	Hf-172	2.71E-13
Cm-247	3.53E-10	Eu-148	1.22E-14	Hf-173	4.06E-16
Cm-248	1.41E-09	Eu-149	1.61E-15	Hf-175	4.75E-15
Cm-249	1.64E-16	Eu-150 hr	5.73E-16	Hf-177m	8.41E-17
Co-55	1.78E-15	Eu-150 yr	2.28E-13	Hf-178m	2.09E-12
Co-56	3.37E-14	Eu-152	1.88E-13	Hf-179m	8.60E-15
Co-57	7.71E-15	Eu-152m	6.96E-16	Hf-180m	1.98E-16
Co-58	9.26E-15	Eu-154	2.43E-13	Hf-181	1.31E-14
Co-58m	8.00E-17	Eu-155	3.53E-14	Hf-182	2.83E-12
Co-60	1.86E-13	Eu-156	1.20E-14	Hf-182m	5.29E-17
Co-60m	1.81E-18	Eu-157	9.48E-16	Hf-183	9.95E-17
Co-61	9.01E-17	Eu-158	8.00E-17	Hf-184	7.27E-16
Co-62m	2.87E-17	F-18	7.12E-17	Hg-193	1.58E-16
Cr-48	7.46E-16	Fe-52	1.86E-15	Hg-193m	6.55E-16
Cr-49	6.17E-17	Fe-55	2.29E-15	Hg-194	1.54E-13
Cr-51	2.84E-16	Fe-59	1.26E-14	Hg-195	1.76E-16
Cs-125	3.53E-17	Fe-60	6.36E-13	Hg-195m	1.30E-15
Cs-127	5.01E-17	Fm-252	3.59E-13	Hg-197	6.05E-16
Cs-129	1.35E-16	Fm-253	4.91E-13	Hg-197m	1.02E-15
Cs-130	2.54E-17	Fm-254	4.94E-14	Hg-199m	5.73E-17
Cs-131	1.42E-16	Fm-255	2.27E-13	Hg-203	6.23E-15
Cs-132	1.05E-15	Fm-257	1.99E-11	Ho-155	3.81E-17
Cs-134	4.00E-14	Fr-222	1.05E-14	Ho-157	4.44E-18
Cs-134m	3.72E-17	Fr-223	5.29E-15	Ho-159	5.54E-18
Cs-135	3.87E-15	Ga-65	2.86E-17	Ho-161	1.32E-17
Cs-135m	2.10E-17	Ga-66	1.58E-15	Ho-162	2.00E-18
Cs-136	6.23E-15	Ga-67	4.75E-16	Ho-162m	2.14E-17
Cs-137	2.72E-14	Ga-68	1.18E-16	Ho-164	7.40E-18
Cs-138	8.63E-17	Ga-70	2.68E-17	Ho-164m	1.62E-17
Cu-60	5.89E-17	Ga-72	1.58E-15	Ho-166	2.67E-15
Cu-61	1.59E-16	Ga-73	3.24E-16	Ho-166m	6.58E-13
Cu-64	2.36E-16	Gd-145	3.84E-17	Ho-167	9.26E-17
Cu-67	1.05E-15	Gd-146	3.24E-14	I-120	3.78E-16
Dy-155	1.89E-16	Gd-147	1.53E-15	I-120m	2.25E-16
Dy-157	6.80E-17	Gd-148	2.81E-10	I-121	1.01E-16
Dy-159	2.07E-15	Gd-149	1.95E-15	I-123	2.52E-16
Dy-165	1.14E-16	Gd-151	7.56E-15	I-124	1.65E-14
Dy-166	6.36E-15	Gd-152	2.07E-10	I-125	2.06E-14
Er-161	7.71E-17	Gd-153	2.02E-14	I-126	3.78E-14
Er-165	2.54E-17	Gd-159	8.31E-16	I-128	4.03E-17
Er-169	1.78E-15	Ge-66	2.70E-16	I-129	1.48E-13
Er-171	4.79E-16	Ge-67	5.16E-17	I-130	2.25E-15
Er-172	3.50E-15	Ge-68	4.41E-14	I-131	2.80E-14
Es-250	4.09E-15	Ge-69	7.15E-16	I-132	3.24E-16
Es-251	4.03E-15	Ge-71	1.04E-16	I-132m	2.55E-16
Es-253	3.37E-12	Ge-75	6.05E-17	I-133	4.97E-15

Nevada Test Site Waste Acceptance Criteria

Nuclide CONVERSION FACTORS -- PE-g/Bq	
I-134	1.12E-16
I-135	1.05E-15
In-109	1.01E-16
In-110 hr	1.15E-16
In-110 min	2.62E-16
In-111	7.15E-16
In-112	7.68E-18
In-113m	3.50E-17
In-114m	7.56E-14
In-115	3.18E-12
In-115m	1.13E-16
In-116m	6.49E-17
In-117	3.13E-17
In-117m	1.51E-16
In-119m	3.78E-17
Ir-182	4.12E-17
Ir-184	1.96E-16
Ir-185	4.66E-16
Ir-186	7.75E-16
Ir-187	1.79E-16
Ir-188	1.31E-15
Ir-189	1.40E-15
Ir-190	5.45E-15
Ir-190m	2.59E-17
Ir-192	2.40E-14
Ir-192m	3.27E-13
Ir-194	2.47E-15
Ir-194m	5.83E-14
Ir-195	1.18E-16
Ir-195m	2.12E-16
K-40	1.05E-14
K-42	1.16E-15
K-43	5.89E-16
K-44	7.05E-17
K-45	4.38E-17
Kr-85	1.1E-14
La-131	4.41E-17
La-132	4.66E-16
La-135	5.04E-17
La-137	7.46E-10
La-138	1.17E-12
La-140	4.12E-15
La-141	4.94E-16
La-142	2.15E-16
La-143	5.10E-17
Lu-169	1.15E-15
Lu-170	2.19E-15
Lu-171	2.54E-15
Lu-172	4.25E-15
Lu-173	1.92E-14

Nuclide CONVERSION FACTORS --- PE-g/Bq	
Lu-174	3.37E-14
Lu-174m	2.16E-14
Lu-176	5.64E-13
Lu-176m	2.27E-16
Lu-177	2.09E-15
Lu-177m	6.11E-14
Lu-178	3.97E-17
Lu-178m	2.78E-17
Lu-179	2.87E-16
Md-257	4.88E-14
Md-258	1.41E-11
Mg-28	4.19E-15
Mn-51	9.76E-17
Mn-52	4.85E-15
Mn-52m	5.76E-17
Mn-53	4.25E-16
Mn-54	5.70E-15
Mn-56	3.21E-16
Mo-101	3.53E-17
Mo-90	1.05E-15
Mo-93	2.42E-14
Mo-93m	3.27E-16
Mo-99	3.37E-15
Na-22	6.80E-15
Na-24	1.03E-15
Nb-88	2.29E-17
Nb-89(122)	3.50E-16
Nb-89(66)	1.52E-16
Nb-90	1.95E-15
Nb-93m	2.51E-14
Nb-94	3.53E-13
Nb-95	4.94E-15
Nb-95m	2.07E-15
Nb-96	1.95E-15
Nb-97	7.05E-17
Nb-98	1.04E-16
Nd-136	9.82E-17
Nd-138	8.75E-16
Nd-139	1.80E-17
Nd-139m	3.18E-16
Nd-141	8.75E-18
Nd-147	5.83E-15
Nd-149	1.90E-16
Nd-151	2.65E-17
Ni-56	3.53E-15
Ni-57	1.61E-15
Ni-59	2.30E-15
Ni-63	5.35E-15
Ni-65	2.93E-16
Ni-66	7.08E-15

Nuclide CONVERSION FACTORS ---- PE-g/Bq	
Np-232	1.07E-15
Np-233	1.85E-18
Np-234	1.73E-15
Np-235	3.53E-15
Np-236 hr	7.02E-14
Np-236 yr	8.85E-11
Np-237	4.60E-10
Np-238	3.15E-14
Np-239	2.13E-15
Np-240	6.93E-17
Os-180	1.48E-17
Os-181	1.14E-16
Os-182	1.17E-15
Os-185	8.82E-15
Os-189m	2.54E-17
Os-191	3.56E-15
Os-191m	2.58E-16
Os-193	1.70E-15
Os-194	5.70E-13
P-32	1.32E-14
P-33	1.97E-15
Pa-227	4.16E-14
Pa-228	3.75E-13
Pa-230	1.25E-12
Pa-231	1.09E-09
Pa-232	7.78E-14
Pa-233	8.12E-15
Pa-234	6.93E-16
Pb-195m	2.64E-17
Pb-198	6.55E-17
Pb-199	6.20E-17
Pb-200	6.74E-16
Pb-201	2.23E-16
Pb-202	8.34E-14
Pb-202m	1.52E-16
Pb-203	4.50E-16
Pb-205	3.34E-15
Pb-205	3.34E-15
Pb-209	8.06E-17
Pb-210	1.16E-11
Pb-211	7.40E-15
Pb-212	1.44E-13
Pb-214	6.64E-15
Pd-100	3.34E-15
Pd-101	1.58E-16
Pd-103	1.34E-15
Pd-107	1.09E-14
Pd-109	9.32E-16
Pm-141	2.70E-17
Pm-143	9.26E-15

Nevada Test Site Waste Acceptance Criteria

Nuclide CONVERSION FACTORS ---- PE-g / Bq		Nuclide CONVERSION FACTORS ---- PE-g / Bq		Nuclide CONVERSION FACTORS ---- PE-g / Bq	
Pm-144	4.57E-14	Ra-226	7.30E-12	Sb-118m	2.23E-16
Pm-145	2.59E-14	Ra-227	2.42E-16	Sb-119	1.79E-16
Pm-146	1.25E-13	Ra-228	4.06E-12	Sb-120 day	3.46E-15
Pm-147	3.34E-14	Rb-79	4.19E-17	Sb-120 min	1.11E-17
Pm-148	9.29E-15	Rb-81	1.11E-16	Sb-122	4.38E-15
Pm-148m	1.92E-14	Rb-81m	1.71E-17	Sb-124	2.14E-14
Pm-149	2.50E-15	Rb-82m	2.47E-16	Sb-124m	8.82E-18
Pm-150	3.08E-16	Rb-83	4.19E-15	Sb-125	1.04E-14
Pm-151	1.49E-15	Rb-84	5.54E-15	Sb-126	9.98E-15
Po-203	6.74E-17	Rb-86	5.64E-15	Sb-126m	2.89E-17
Po-205	1.15E-16	Rb-87	2.75E-15	Sb-127	5.13E-15
Po-207	1.72E-16	Rb-88	7.12E-17	Sb-128 hr	1.44E-15
Po-210	8.00E-12	Rb-89	3.65E-17	Sb-128 min	1.50E-17
Pr-136	2.10E-17	Re-177	2.03E-17	Sb-129	5.48E-16
Pr-137	4.06E-17	Re-178	1.92E-17	Sb-130	8.82E-17
Pr-138m	1.15E-16	Re-181	5.48E-16	Sb-131	1.22E-16
Pr-139	4.91E-17	Re-182(12.7)	3.43E-16	Sc-43	2.20E-16
Pr-142	2.45E-15	Re-182(64)	2.43E-15	Sc-44	4.19E-16
Pr-142m	3.14E-17	Re-184	4.38E-15	Sc-44m	6.45E-15
Pr-143	6.90E-15	Re-184m	1.25E-14	Sc-46	2.52E-14
Pr-144	3.68E-17	Re-186	2.72E-15	Sc-47	1.57E-15
Pr-145	5.73E-16	Re-186m	3.07E-14	Sc-48	3.50E-15
Pr-147	2.59E-17	Re-187	4.63E-17	Sc-49	8.66E-17
Pt-186	1.13E-16	Re-188	1.71E-15	Se-70	1.50E-16
Pt-188	2.67E-15	Re-188m	3.50E-17	Se-73	3.90E-16
Pt-189	1.52E-16	Re-189	1.06E-15	Se-73m	3.94E-17
Pt-191	5.23E-16	Rh-99	2.63E-15	Se-75	7.21E-15
Pt-193	1.93E-16	Rh-99m	7.37E-17	Se-79	8.38E-15
Pt-193m	7.46E-16	Rh-100	1.18E-15	Se-81	2.19E-17
Pt-195m	1.04E-15	Rh-101	8.66E-15	Se-81m	7.53E-17
Pt-197	4.82E-16	Rh-101m	6.36E-16	Se-83	4.66E-17
Pt-197m	1.04E-16	Rh-102	1.02E-13	Si-31	1.90E-16
Pt-199	3.87E-17	Rh-102m	4.06E-14	Si-32	8.63E-13
Pt-200	1.42E-15	Rh-103m	4.35E-18	Sm-141	2.61E-17
Pu-234	2.33E-14	Rh-105	8.12E-16	Sm-141m	4.97E-17
Pu-235	1.94E-18	Rh-106m	1.82E-16	Sm-142	1.83E-16
Pu-236	1.23E-10	Rh-107	2.06E-17	Sm-145	9.38E-15
Pu-237	1.68E-15	Rn-220	3.15E-14	Sm-146	7.02E-11
Pu-238	3.90E-10	Rn-222	8.82E-13	Sm-147	6.36E-11
Pu-239	4.35E-10	Ru-94	1.13E-16	Sm-151	2.55E-14
Pu-240	4.35E-10	Ru-97	3.84E-16	Sm-153	1.67E-15
Pu-241	8.50E-12	Ru-103	7.62E-15	Sm-155	2.14E-17
Pu-242	4.09E-10	Ru-105	3.87E-16	Sm-156	5.95E-16
Pu-243	1.40E-16	Ru-106	4.06E-13	Sn-110	4.28E-16
Pu-244	3.43E-10	S-35	1.11E-14	Sn-111	2.31E-17
Pu-245	1.12E-15	Sb-115	2.22E-17	Sn-113	9.07E-15
Ra-223	6.68E-12	Sb-116	1.97E-17	Sn-117m	3.68E-15
Ra-224	2.69E-12	Sb-116m	6.52E-17	Sn-119m	5.32E-15
Ra-225	6.61E-12	Sb-117	2.13E-17	Sn-121	4.35E-16

Nevada Test Site Waste Acceptance Criteria

Nuclide CONVERSION FACTORS --- PE-g / Bq	
Sn-121m	9.79E-15
Sn-123	2.77E-14
Sn-123m	3.94E-17
Sn-125	1.32E-14
Sn-126	8.47E-14
Sn-127	2.76E-16
Sn-128	1.84E-16
Sr-80	4.28E-16
Sr-81	7.18E-17
Sr-83	1.29E-15
Sr-85	4.28E-15
Sr-85m	7.24E-18
Sr-87m	3.65E-17
Sr-89	3.53E-14
Sr-90	1.11E-12
Sr-91	1.41E-15
Sr-92	6.86E-16
Ta-172	4.82E-17
Ta-173	2.72E-16
Ta-174	5.73E-17
Ta-175	3.24E-16
Ta-176	3.97E-16
Ta-177	2.61E-16
Ta-178	7.05E-17
Ta-179	5.54E-15
Ta-180	2.08E-13
Ta-180m	7.93E-17
Ta-182	3.81E-14
Ta-182m	1.14E-17
Ta-183	4.44E-15
Ta-184	9.73E-16
Ta-185	7.15E-17
Ta-186	2.07E-17
Tb-147	1.77E-16
Tb-149	6.23E-15
Tb-150	2.65E-16
Tb-151	5.32E-16
Tb-153	9.26E-16
Tb-154	1.01E-15
Tb-155	6.61E-16
Tb-156	3.34E-15
Tb-156m (244)	6.49E-16
Tb-156m (150)	1.85E-16
Tb-157	7.84E-15
Tb-158	2.18E-13
Tb-160	2.13E-14
Tb-161	2.90E-15
Tc-101	1.52E-17
Tc-104	6.99E-17
Tc-93	6.05E-17

Nuclide CONVERSION FACTORS --- PE-g / Bq	
Tc-93m	2.85E-17
Tc-94	2.29E-16
Tc-94m	1.20E-16
Tc-96	2.02E-15
Tc-96m	1.97E-17
Tc-97	8.44E-16
Tc-97m	4.16E-15
Tc-98	1.95E-14
Tc-99	7.08E-15
Tc-99m	2.77E-17
Tc-116	2.26E-16
Te-121	1.62E-15
Te-121m	1.36E-14
Te-123	8.97E-15
Te-123m	9.01E-15
Te-125m	6.20E-15
Te-127	2.71E-16
Te-127m	1.83E-14
Te-129	7.62E-17
Te-129m	2.04E-14
Te-131	4.06E-16
Te-131m	5.45E-15
Te-132	8.03E-15
Te-133	7.84E-17
Te-133m	3.68E-16
Te-134	1.08E-16
Th-226	2.98E-14
Th-227	1.38E-11
Th-228	2.13E-10
Th-229	1.83E-09
Th-230	2.77E-10
Th-231	7.46E-16
Th-232	1.39E-09
Th-234	2.98E-14
Ti-44	8.66E-13
Ti-45	1.83E-16
Tl-194	7.84E-18
Tl-194m	3.81E-17
Tl-195	3.94E-17
Tl-197	4.22E-17
Tl-198	1.40E-16
Tl-198m	9.10E-17
Tl-199	5.92E-17
Tl-200	4.00E-16
Tl-201	2.00E-16
Tl-202	8.38E-16
Tl-204	2.05E-15
Tm-162	1.87E-17
Tm-166	3.21E-16
Tm-167	2.51E-15

Nuclide CONVERSION FACTORS --- PE-g / Bq	
Tm-170	2.24E-14
Tm-171	7.78E-15
Tm-172	4.16E-15
Tm-173	4.09E-16
Tm-175	1.97E-17
U-230	1.66E-11
U-231	1.01E-15
U-232	5.60E-10
U-233	1.15E-10
U-234	1.13E-10
U-235	1.05E-10
U-236	1.07E-10
U-237	3.00E-15
U-238	1.02E-10
U-239	3.18E-17
U-240	1.93E-15
V-47	5.98E-17
V-48	8.69E-15
V-49	2.94E-16
W-176	9.07E-17
W-177	5.54E-17
W-178	2.30E-16
W-179	2.98E-18
W-181	1.29E-16
W-185	6.39E-16
W-187	5.26E-16
W-188	3.50E-15
Xe-120	2.21E-16
Xe-121	9.70E-16
Xe-122	2.96E-17
Xe-123	3.37E-16
Xe-125	1.45E-16
Xe-127	1.55E-16
Xe-129m	1.28E-17
Xe-131m	4.66E-18
Xe-133	1.91E-17
Xe-133m	1.69E-17
Xe-135	1.47E-16
Xe-135m	2.37E-16
Xe-138	6.05E-16
Y-86	1.46E-15
Y-86m	8.47E-17
Y-87	1.49E-15
Y-88	2.39E-14
Y-90	7.18E-16
Y-90m	4.00E-16
Y-91	4.16E-14
Y-91m	3.09E-17
Y-92	6.64E-16
Y-93	1.83E-15

Nevada Test Site Waste Acceptance Criteria

Nuclide CONVERSION FACTORS — PE-g / Bq	
Y-94	5.95E-17
Y-95	3.21E-17
Yb-162	1.90E-17
Yb-166	2.53E-15
Yb-167	7.12E-18
Yb-169	6.86E-15
Yb-175	1.38E-15
Yb-177	1.24E-16
Yb-178	1.38E-16
Zn-62	1.75E-15
Zn-63	6.93E-17
Zn-65	1.73E-14
Zn-69	3.34E-17
Zn-69m	6.93E-16
Zn-71m	3.31E-16
Zn-72	4.25E-15
Zr-86	1.87E-15
Zr-88	2.07E-14
Zr-89	2.02E-15
Zr-93	2.73E-13
Zr-95	2.01E-14
Zr-97	3.68E-15

Appendix C
Marking and Labeling

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Appendix C - Marking and Labeling

C.1 Barcode

Barcodes (see Figure C-1) used on packages *must* meet the following standards:⁷⁶

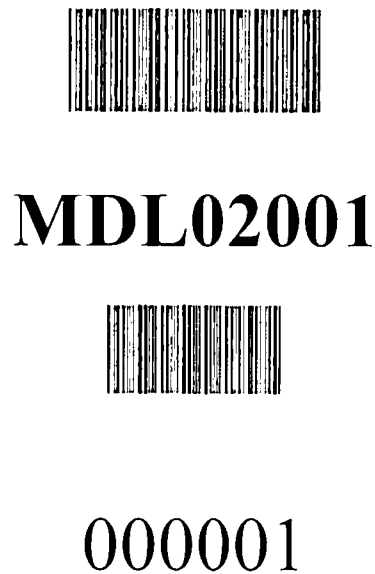
- A. Code 39.
- B. Low- to medium density; low-density preferred.
- C. 1-inch high bar code not to exceed 6 inches wide.
- D. Human readable interpretation (HRI) 1/2 inch high, printed below the bar code.
- E. Spacing between bar code and HRI will be 1/10 of an inch.
- F. Minimum left and right margin (quiet zones) will be at least 1/25 inch.
- G. Bar codes and HRI will be stacked with a minimum separation of 1/2 inch and in the following order: shipment number, container number.
- H. A total of two bar code labels *must* be placed on each package near the top and on opposite sides.⁷⁶ Drums *must* have a total of two bar code labels, one on top of the drum lid and one on the side near the top.⁷⁶

Note: Exceptions to these requirements must be verified with the RWMC operations prior to shipment.

- I. Labels *shall* be securely attached and able to satisfy the following:
 - Weatherproof (*must* not deform when wet or fade in the sun)⁷⁶
 - Resistant to tearing, peeling, and cracking
 - Print *must* be with permanent indelible ink and legible

A sample bar code *must* be submitted to NTS Operations prior to the first shipment to ensure that the RWMC equipment can be used to read the bar code.⁷⁶

Figure C-1: Bar Code Label Example



Note: Example not actual size.

C.2 Marking and Labeling

Packages *must* have the following markings and labels:⁷⁶

- A. Marking and labeling as required in Title 49 CFR;
- B. For additional asbestos labeling, see Section 3.1.15.
- C. For additional beryllium labeling, see Section 3.1.17.
- D. For additional MW labeling, see Section 3.3.6.1
- E. "Package Certification Label" (PCL) (see Figure C-2), signed by the Waste Certification Official or package certifier.⁷⁷ If the waste is unpackaged bulk, a signed PCL *must* accompany the shipment papers.⁸²⁷⁶
- F. Shipment number in the following sequence: Two alpha character generator-site-designator codes assigned by NNSA/NSO/WMP (see Section C-3); one alpha character for type of waste (L for LLW, M for MW); two numerical characters for current fiscal year; three alpha numerical characters for shipment sequence. This number *must* be on the bar code.⁷⁸ Example: MDL99001 indicates a shipment from the Mound Facility of LLW in fiscal year 1999 and the first shipment.

- G. Package number *must* be six characters (alpha, numeric, or combination) with no duplication within the shipment. This number *must* be on the bar code.
- H. Package weight in units of kilograms and pounds *must* be included on the side of each waste package. This requirement can be met through the use of a label, additions to bar code labels, or by writing the weight on the side of the waste package.

Figure C-2: Package Certification Label

NV-211 October 2005	USDOE
PACKAGE CERTIFICATION LABEL	
This label certifies this container and its contents meet the requirements of DOT (49 CFR), EPA (40 CFR), and NTSWAC for transportation and disposal.	
PACKAGE NUMBER: _____	
DATE: _____	
CERTIFIED BY (print): _____	
CERTIFIED BY (signature): _____	
Waste Certification Official	<input type="checkbox"/>
Alternate Waste Certification Official	<input type="checkbox"/>
Package Certifier	<input type="checkbox"/>
RWMC DESIGNATION (i.e. ONLO, ARIR): _____	

C.3 Generator Waste Stream and Shipment Codes

GENERATOR	RWMC DESIGNATION	SITE DESIGNATOR
Aberdeen Proving Ground	USAA	AP
Advanced MW Treatment Project	AMWP	AM
Argonne National Lab	ANLE	AE
Boeing	BNRC	BN
Brookhaven National Lab	BNLX	BR
BWXT Y-12	BWXT	BW
Duratek	DRTK	DR
Fernald	ONLO	WM
Foster Wheeler	FWOR	FW
GA Technologies	BGAT	BG
INL	INEL	IN
Kansas City	ABXK	AS
LANL	LANL	LA
LLNL	BCLA	LL
Lovelace Foundation	ALVI	LV
NSIec - NTS	IRY5	DP
Nuclear Fuel Services	NFSI	NF
Oak Ridge Reservation	ORTN	OR
Paducah	PGDP	PD
Pantex	AMHP	PX
Permafix (M&EC)	PERM	PF
Portsmouth	PORT	PO
Princeton Plasma Physics Lab	PPPL	PL
Sandia - Albuquerque	ASLA	SA
Sandia - California	ASLL	SL
Savannah River	SVRS	SR
Stoller -Navarro	LITN	IT
UT-Battelle	ORNL	OL
West Valley	WVDP	WV

Note: If generator site is not listed, develop designations and submit with first waste profiles. A database verification of uniqueness will be conducted by RWAP.

C.4 NTS Advance Shipment Notification

**Nevada Test Site
Advance Shipment Notification**

Shipper Name and Address: _____

Contact Name: _____ Phone/Pager: _____

Waste Stream
Number(s): _____

Shipment Number: _____

Shipment Departure Date: _____ Time: _____

Estimated Arrival Date: _____ Time: _____

Carrier: _____ Driver's Name: _____
(*must* be a U.S. Citizen)

Driver's License No. _____ State: _____

Tractor License No. _____ Trailer No. _____ Seal No. _____

Gross Wt. (Lbs): _____ Type/Number of Packages: Box _____ Drum _____

Bulk _____ (cargo containers, equipment, burrito wraps, etc..) Other _____

DOT Proper Shipping Name(s) or Attached Bill of Lading:

Special Handling Considerations:

Asbestos Classified Mixed Waste Other: _____

Attachments:

PSDR Bill of Lading Other: _____

Privacy Act Statement: The information on this form is protected by the Privacy Act of 1974. The purpose of requesting this information is to comply with the terms and conditions under which the Nevada Test Site will accept low-level radioactive waste and mixed waste for disposal. This information will be used by the U.S. Department of Energy, National Nuclear Security Administration Nevada Site Office and its contractors. Failure to provide this information will result in either a delay in waste receipt or waste refusal at the Nevada Test Site.

PRIVACY ACT INFORMATION

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Appendix D
Package Storage and Disposal Request

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Appendix D -Package Storage and Disposal Request

D. Package Storage and Disposal Request, Revision 1

The activity of each nuclide in a waste package as documented on the Package Storage and Disposal Request (PSDR) *shall not* exceed the corresponding maximum radionuclide concentration specified on the waste profile.⁷⁶ See Section 3.1.2 for reportable nuclides.

Shipment Number: _____ Prepared By: _____

Date: _____ Manifest No: _____

Package No.	_____	Contact (mSv/h):	_____	Completed Date:	_____				
Container Code:	_____	One Meter (mSv/h):	_____	Operation Type:	_____				
External Volume (m ³):	_____	Gross Weight (kg):	_____	Total Activity (Bq):	_____				
Waste Volume (m ³):	_____	Net Weight (kg):	_____	Activity Date:	_____				
Comment: _____									
Waste Stream Profile	Form Code	Form Description	Treatment Code	Treatment Description	Rev. No.	Rev. Date	Nuclide	Qty (Bq)	EPA Code

If you have any questions on completing this document, contact the operator of the NTS at (702) 295-6811. Data entered on the form *must* be legible. Hand-printing or typing of letters and numbers is preferred to handwriting. When using a decimal, it *must* be clearly defined. DO NOT USE COMMAS!

Nevada Test Site Waste Acceptance Criteria

PSDR Instructions

SHIPMENT NUMBER: Consists of eight alphanumeric characters. Enter the shipment number in the following sequence: two-digit generator code assigned by WMP, L (low-level) or M (mixed), last two digits of the current fiscal year (Oct. 1 - Sept. 30), and the consecutive number of shipments from the generating facility. EXAMPLE: DPL90001 represents Decon Pad, low-level waste, fiscal year 1990, and the first shipment sent to WMP for fiscal year 1990. The shipment number *must* be eight characters in the above sequence.

MANIFEST NUMBER: Required only on mixed waste shipments: a five digit number

PACKAGE NUMBER: Six unique characters for each container in the shipment. See the instructions on the comment field for required information for previously rejected packages.

CONTACT: Maximum radiation reading at the surface of the package in mSv/H: Written in scientific notation X.XXXE±00.

COMPLETION DATE: The date, in the formal DDMMYYYY (e.g., 01Jan1992), that the last waste material was placed in the package.

CONTAINER CODE: Three digit number that identifies the type of container. If your container is not listed, contact the RWMC at (702) 295-6811.

Code	Description	Length	Width	Height	External Volume	
					Cubic Feet	Cubic Meters
100	Miscellaneous	N/A	N/A	N/A	N/A	N/A
101	30-gallon drum	N/A	N/A	N/A	4.99-6.99	0.141-0.1979
102	55-gallon drum	N/A	N/A	N/A	7.99-9.99	0.226-0.283
124	85-gallon drum	N/A	N/A	N/A	12.99-14.99	0.368-0.424
125	110-gallon drum	N/A	N/A	N/A	18.99-20.99	0.537-0.594
*200	Half box	78" - 90"	42" - 56"	18" - 30"	34.125-87.5	0.9663-2.4777
*201	Wooden half box	78" - 90"	42" - 56"	18" - 30"	34.125-87.5	0.9663-2.4777
*210	Full box	78" - 90"	42" - 56"	42" - 56"	79.625-163.33	2.2547-4.6250
*211	Wooden full box	78" - 90"	42" - 56"	42" - 56"	79.625-163.33	2.2547-4.6250
*220	Cargo Container	234" - 246"	90" - 102"	90" - 102"	1,096.875-1,481.125	31.060-41.940
*230	Supersack	N/A	N/A	N/A	N/A	N/A
240	Burrito Wrap	N/A	N/A	N/A	N/A	N/A
250	Concrete Monolith	N/A	N/A	N/A	149.734-199.987	4.24-5.663

*External volumes reported for containers using these codes *must* be based on the containers' external dimensions. Volume should be within range specified.

1 METER: Maximum radiation reading at 1 meter in mSv/h: Written in scientific notation X.XXXE±00.

OPERATION TYPE: B for burial, or R for retrievable.

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EXTERNAL VOLUME: Total volume displaced by the container in cubic meters. Refer to CONTAINER CODE. Written in scientific notation X.XXXE±00.

GROSS WEIGHT: Total weight of container including waste and solidification or absorbent media in kilograms. Written in scientific notation X.XXXE±00.

TOTAL ACTIVITY: Total Becquerels; *must* equal the sum of becquerels for each nuclide reported. Written in scientific notation X.XXXE±00.

WASTE VOLUME: Actual volume of waste material in package in cubic meters. Written in scientific notation X.XXXE+00.

NET WEIGHT: Total weight of waste and solidification or absorbent media, excluding container, in kilograms. Written in scientific notation X.XXXE±00.

ACTIVITY DATE: The date, in the formal DDMMYYYY (e.g., 01Jan1992), that the activity of the package was determined.

COMMENT: If the package was rejected from NTS and is being re-shipped to NTS, the original package number of the previously rejected package (parent) *must* be entered in parentheses. All packages generated from the repackaging of the rejected waste (progeny) *shall* have the original rejected package number (parent) entered in parentheses in the comment section.

WASTE STREAM / PROFILE: Waste Stream Identification or profile number. Thirteen alphanumeric characters. First four characters will be the RWMC designation. Next nine alphanumeric characters will be assigned by the generator. EXAMPLE: LRY500000001 represents waste from the NTS.

WASTE FORM CODES: Enter the appropriate three-digit number that categorizes the waste in the package.

020 - Charcoal	028 - EPA Hazardous	036 - Sealed Source or Device
021 - Incinerator Ash	029 - Demolition Rubble	037 - Paint or Plating
022 - Soil	030 - Cation Exchange Media	038 - Evaporator Bottoms /Sludges /Concentrates
023 - Gas	031 - Anion Exchange Media	039 - Compactable Trash
024 - Oil	032 - Mixed Bed Ion Exchange Media	040 - Noncompactable Trash
025 - Aqueous Liquid	033 - Contaminated Equipment	041 - Animal Carcasses
026 - Filter Media	034 - Organic Liquid (except oil)	042 - Biological Material (except animal carcasses)
027 - Mechanical Filter	035 - Glassware or Labware	043 - Activated Material
		044 - Other (Describe)

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WASTE TREATMENT CODES: Enter the appropriate three-digit number that categorizes which waste treatment was used on the waste in the package

Sorption

060 - Speedi Dri
061 - Celetom
062 - Floor Dry/Supertine
063 - HiDri
064 - Safe T Sorb
065 - Safe N Dry
066 - Florco
067 - Florco X
068 - Solid A Sorb
069 - Chemsil 30
070 - Chemsil 50

071 - Chemsil3030
072 - Dicaperl HP200
073 - Dicaperl HP500
074 - Zonolite Gd4
075 - Petroset
076 - Petroset II
077 - Aquaset
078 - Aquaset II
079 - Other (Describe)
080 - Quicksolid

Solidification

090 - Cement
091 - Concrete Encapsulation
092 - Bitumen
093 - Vinyl Toluene
094 - Vinyl Ester Styrene
095 - Other (Describe)
100 - No Sorption or Solidification

Mixed Waste

101 AMLGM
102 CARBN
103 CHOXD
104 CHRED
105 CMBST
106 DEACT
107 MACRO
108 STABL
109 Other (Provide LDR Specified Treatment Technology Code)
110 Meets Concentration Based LDR standards

REVISION: WP Revision number found in Section B.1 of the approved profile: profile revision *must* be a two-digit number.

REVISION DATE: WP Date found in Section B.1 of the approved profile: in the formal DDMMMYYYY (e.g., 01Jan1992).

NUCLIDE: Valid nuclide description. Attach additional sheet to report more nuclides than space allows. Dash (-) format is required for identifying radionuclides (e.g., Cs-137 and Pu-239).

QUANTITY: The quantity of the nuclide present in the container in Becquerels. The sum of each nuclide reported *must not* exceed the total activity reported for the total package. Written in scientific notation X.XXXE±00.

EPA CODE: For mixed waste containers, enter the EPA Hazardous Waste Number associated with the package. Enter "STHW" if the container is mixed waste with a State hazardous waste number and not a federal EPA Hazardous Waste Number.

Appendix E

**Radiological Waste Characterization
and
Reporting Requirements**

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Appendix E - Radiological Waste Characterization and Reporting Requirements

E.1 Radionuclide Reporting

Reportable radionuclides *shall* be reported on the Waste Profile (WP) and Package Storage and Disposal Request (PSDR).^{6.13.7.1} The WP is applied at a waste stream level. The PSDR is applied at a waste package level. Any radionuclides reported on the PSDR *must* also be identified on the WP.^{7.5} (See Appendix D for example of the PSDR.)

A. Reportable Radionuclides

Radionuclides known or reasonably expected to be present in a waste stream *shall* be reported as follows:^{6.7.6.16.8.18}

1. The activity concentration of the radionuclides in the final waste form exceeds 1 percent of the Action Level (Table E-1).^{6.7.7.1} These radionuclides require rigorous waste characterization and *shall* be reported on the PSDR and the WP.^{7.5}
2. Radionuclides that are alpha-emitting and transuranic with a half-life greater than 20 years, that exceed 10 pCi/g *shall* be reported on the WP.^{7.5} The waste mass *must* be determined as described in Section E.4.^{7.5} Transuranic waste radionuclides with concentrations that exceed 1 nCi/g require rigorous waste characterization methods and *shall* be reported on the PSDR and the WP.^{7.5}
3. Activity concentrations in the final waste form that exceed 1 percent of the total activity concentration *shall* be reported on the PSDR and the WP.^{7.5} The total activity concentration *shall* include the activity of all radionuclides, except for those that are exempt from the reporting requirements as specified.^{6.7.7.1} For these radionuclides and for those present at a level less than the detection limit of industry-accepted characterization methods, Process Knowledge (PK) should be sufficient for characterization.

Table E-1: Radionuclide Action Levels for Waste Characterization and Reporting

Nuclide	Action Level (Bq m-3)	Nuclide	Action Level (Bq m-3)
Unlisted nuclide with a $t_{1/2} < 5$ yr	No Limit	^{227}Ac	1.0×10^{12}
^3H	5.6×10^{15}	^{229}Th	4.1×10^9
^{14}C	2.3×10^8	^{230}Th	9.6×10^7
^{36}Cl	1.1×10^{10}	^{232}Th	8.1×10^8
^{59}Ni	8.1×10^{12}	^{231}Pa	1.4×10^9
^{63}Ni (activated metal)	2.5×10^{14}	^{232}U	9.3×10^9
^{63}Ni	2.5×10^{13}	^{233}U	3.1×10^{10}
^{60}Co	No Limit	^{234}U	1.9×10^{10}
^{90}Sr	1.5×10^{12}	^{235}U	1.2×10^{10}
^{93}Zr	1.4×10^{13}	^{236}U	1.2×10^{11}
^{99}Tc	1.1×10^{11}	^{238}U	5.9×10^{10}
^{107}Pd	1.3×10^{14}	^{237}Np	7.0×10^8
^{126}Sn	5.9×10^8	^{236}Pu	2.3×10^{11}
^{129}I	2.9×10^9	^{238}Pu	1.2×10^{11}
^{133}Ba	No Limit	^{239}Pu	2.3×10^{10}
^{135}Cs	2.8×10^{12}	^{240}Pu	2.3×10^{10}
^{137}Cs	3.4×10^{11}	^{241}Pu	5.2×10^{11}
^{151}Sm	1.2×10^{15}	^{242}Pu	2.4×10^{10}
^{152}Eu	4.8×10^{13}	^{241}Am	1.8×10^{10}
^{154}Eu	1.2×10^{16}	^{243}Am	7.0×10^9
^{210}Pb	1.3×10^{13}	^{242}Cm	2.4×10^{13}
^{207}Bi	1.1×10^{11}	^{244}Cm	8.1×10^{12}
^{226}Ra	3.6×10^7	^{248}Cm	6.3×10^9
^{228}Ra	No Limit		

B. Exempt Radionuclides

Radionuclides meeting any of the following criteria are exempt from the reporting requirements:

1. Any radionuclide, as listed in Table E-2, that will reach a state of transient or secular equilibrium with a parent radionuclide within the operational period of the disposal site.
2. Any radionuclide occurring at activity concentrations not exceeding background ranges for the region in which it was generated and material of interest.

Table E-2: Exempt Radionuclides

The progeny radionuclides listed are exempt from reporting requirements when a parent radionuclide is present.

⁹⁰ Y, ⁹³ Nb, ^{126m} Sb, ¹²⁶ Sb, ^{137m} Ba
²³³ Pa, ²²⁵ Ra, ²²⁵ Ac, ²²¹ Fr, ²¹⁷ At, ²¹³ Bi, ²¹³ Po, ²⁰⁹ Tl, ²⁰⁹ Pb
²³⁹ Np, ²³¹ Th, ²²⁷ Th, ²²³ Fr, ²²³ Ra, ²¹⁹ Rn, ²¹⁵ Po, ²¹¹ Pb, ²¹¹ Bi, ²¹¹ Po, ²⁰⁷ Tl
²³⁴ Th, ^{234m} Pa, ²³⁴ Pa, ²²⁸ Rn, ²¹⁸ Po, ²¹⁴ Pb, ²¹⁴ Bi, ²¹⁴ Po, ²¹⁰ Bi, ²¹⁰ Po
²⁴⁰ U, ^{240m} Np, ²⁴⁰ Np, ²²⁸ Ra, ²²⁸ Ac, ²²⁸ Th, ²²⁴ Ra, ²²⁰ Rn, ²¹⁶ Po, ²¹² Pb, ²¹² Bi, ²¹² Po, ²⁰⁸ Tl

E.2 Waste Profile Instructions

The reported activity concentrations *must* be representative of the final waste form after treatment or stabilization.⁷⁵ Zero will not be accepted as the lower limit value. The lower limit *must* be set as the expected lower limit concentration or as the lower limit of detection (LLD) of the characterization method.⁷⁵ If the lower limit is set by the LLD, list the lower limit value in parenthesis. Waste packages exceeding the upper limit will not be accepted for disposal without prior approval of a revised waste profile. The waste concentration may be less than the lower limit without prior approval.

E.3 Radiological Characterization Methods

Waste characterization methods are described below and are not intended to be all-inclusive. These methods can be used individually or in combination. The NNSA/NSO will use a graded approach in its acceptance of waste characterization methods. Generators are encouraged to develop innovative waste characterization plans designed for the specific conditions at their facilities.

The acceptability of a generator's waste characterization plan will be based on a determination that the level of effort is appropriate, given the potential of the waste stream to exceed the waste concentration action levels (Table E-1) and the physical limitations of the waste stream. Physical limitations may include waste matrices that cannot be representatively sampled because of unreasonable radiation exposure. Generators are expected to identify, based on knowledge of their processes and facility, those radionuclides with a reasonable probability of exceeding 1 percent of the waste concentration action level. Waste streams or waste packages reasonably expected to exceed 1 percent of the waste concentration action levels (Table E-1) will require the greatest level of characterization and verification.

A. Materials Controls and Accountability (MC&A)

MC&A records are data developed from a mass balance of material entering and exiting a process. MC&A data can be used to estimate the activity concentration of waste streams. This method is expected to be most useful for generators possessing limited numbers of nuclides, such as special nuclear materials, in known activity concentrations.

B. Gross Radiation Measurements

Scaling factors can be developed that relate gross radiation measurements to the activity concentration of a waste stream. Generators using gross radiation measurements *shall* ensure that measurements correlate with activity concentration on a consistent basis.¹⁸ Radionuclide distributions in the waste stream *shall* be initially determined and periodically verified through direct measurements or sampling and analysis.¹⁹ Generators *shall* document all methods used to develop scaling factors which relate gross radiation measurements to the activity concentration.²⁰ When developing scaling factors, generators *must* consider the waste package and detector geometry, shielding and attenuation effects, self-absorption, and the energy spectra and decay schemes of radionuclides in the waste.²¹

C. Direct Measurement of Specific Radionuclides

Direct measurement of radionuclides may include nondestructive analysis of waste packages. In using this method, individual radionuclides are measured.

D. Sampling and Analysis

Radiological characterization using sampling and analysis, including swipes taken for characterization, *shall* be controlled.^{6,24}

E. Process Knowledge

Process knowledge will often be sufficient for characterization of radionuclides not having action levels or occurring at concentrations less than 1 percent of the action level. This method involves determining the radionuclide content of the waste through knowledge and control of the source of the waste.

E.4 Determination of Waste Volume

Waste activity concentration *shall* be determined based on the volume of the final waste form as offered for disposal.⁷³ Measurement or analysis of samples may be performed prior to final processing if the measured activity concentration can be related to the final activity concentration. The volume of the waste can usually be taken as the internal volume of the container if the radionuclides are reasonably homogeneously distributed throughout the waste and the waste fills at least 90 percent of the waste container. When these conditions are not met, for example when the package contains significant void space or contains irregularly shaped equipment or components, the volume *shall* be taken as the volume occupied by the waste in the container.⁶⁶ The activity concentration of transuranic radionuclides in units of nCi/g *shall* be based on the mass of the contents of a single waste container, excluding the mass of the container and any shielding present.

E.5 Examples of Waste Characterization Documentation

A. Process knowledge documentation:

Historical analytical data, literature searches, living memory, historic records, MC&A records, mass balance documentation, production specifications, certificates of traceability, plans and drawings, signed statements of living memory, system descriptions, work and operating procedures which generated waste, and Material Safety Data Sheets.

B. Evaluation of PK and historical data:

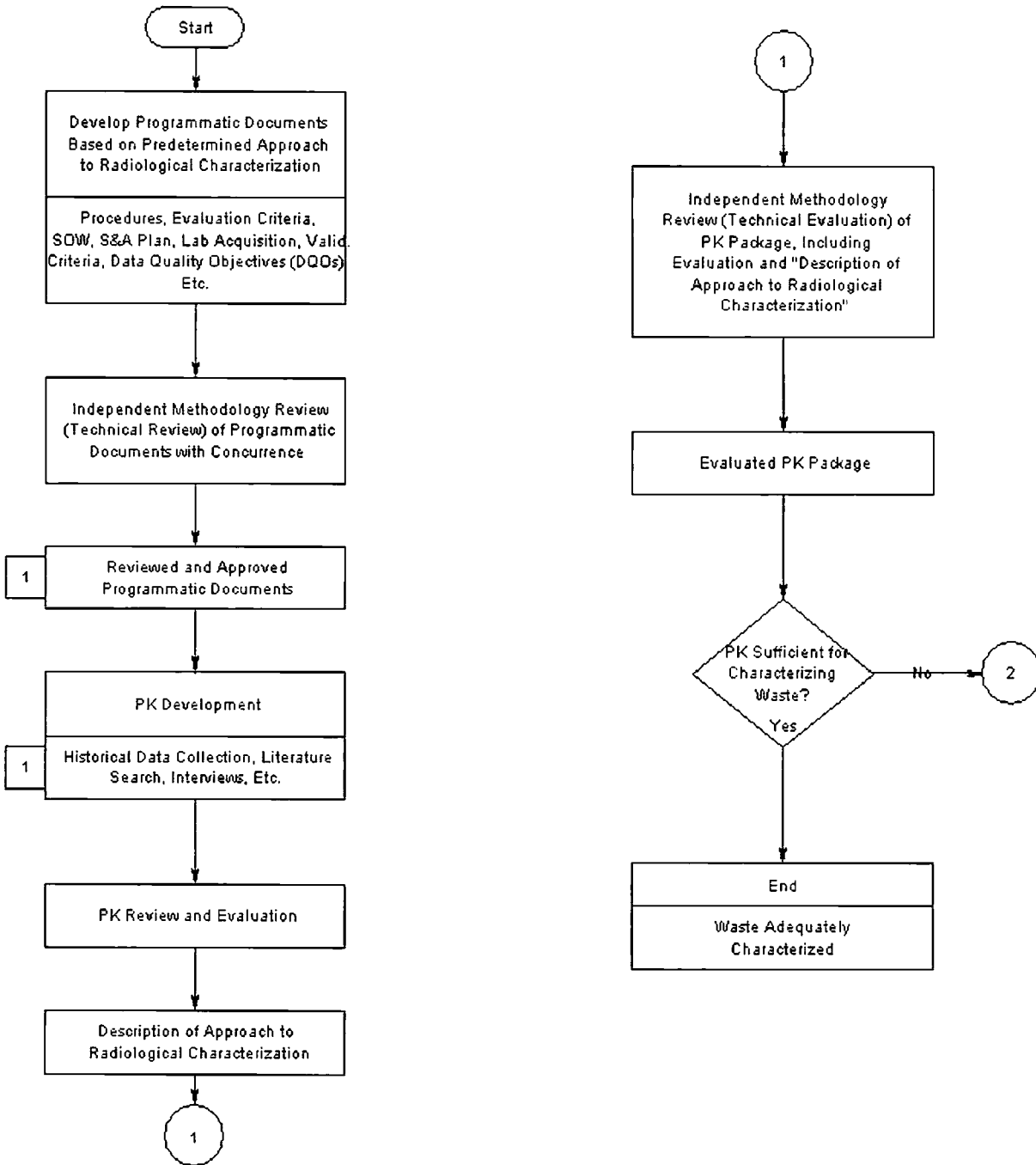
C. Independent review of program documents: (may be in the form of a sign-off page within the approved document).

- D. Reviewed and approved procedures: Direct measurement and/or survey processes, surface area estimations (when surface area of waste material is utilized in radiological characterization calculations), and ratio/scaling factor information (approach to ratio/scaling factor development, application of ratios/scaling factors, justification for use of ratios/scaling factors, supporting calculations, operating procedures for assay equipment).
- E. Evaluated Data, Validated Data, Sampling and Analysis Plan, Scope of Work, and Laboratory Acquisition Document.

E.6 Radiological Characterization Flow Diagram Overview

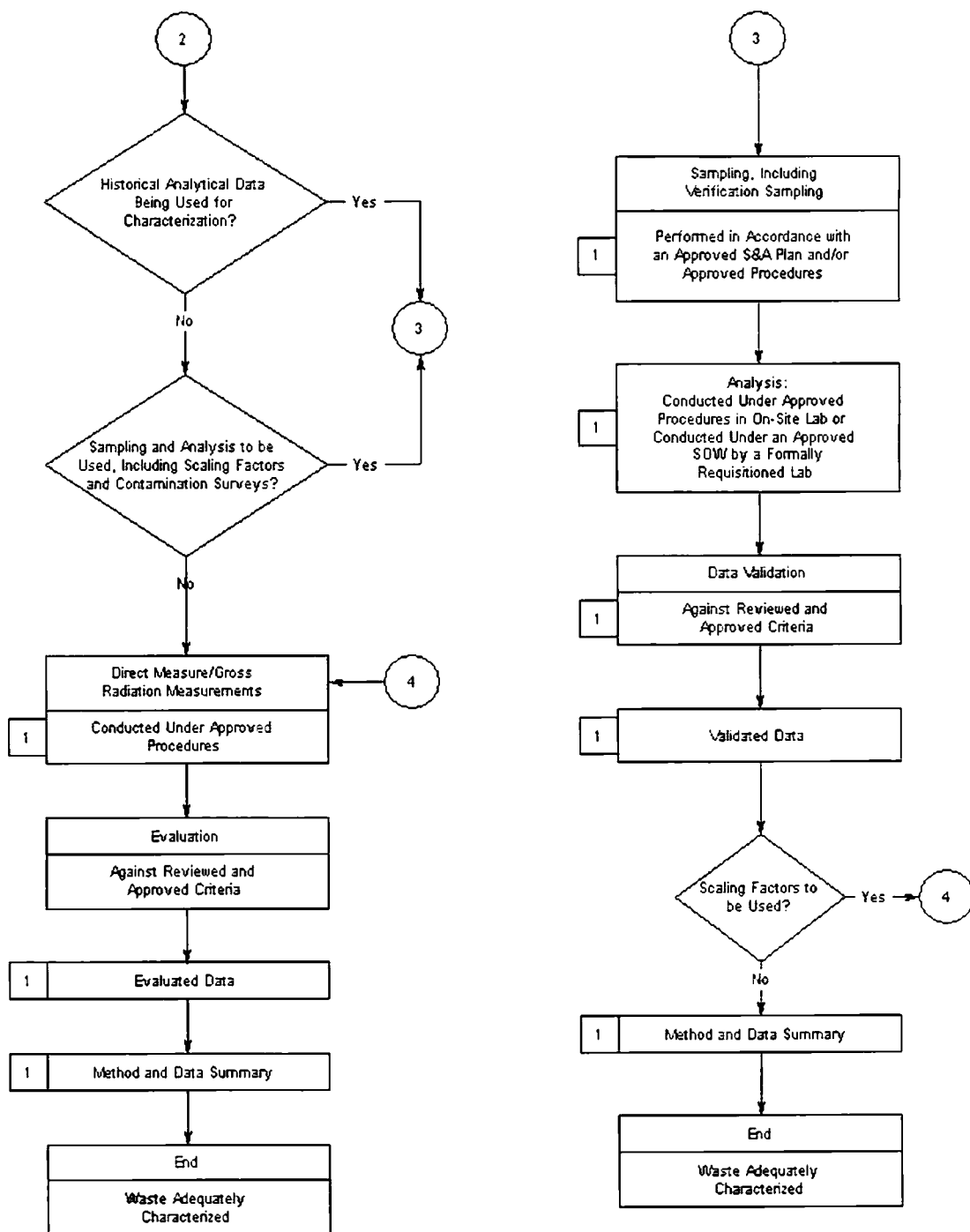
Figure E-1, the radiological characterization flow diagram, illustrates the approach that should be used to obtain adequate radiological characterization. The approach allows for the utilization of generally accepted radiological characterization methodologies and documentation. Radiological characterization documentation requirements are outlined by markers (9) on the radiological characterization flow diagram.

Figure E-1: Radiological Characterization Flow Diagram



1 Documents Should Be Referenced in the Waste Profile

Figure E-1 (continued)



NOTE: Historical analytical data used for characterization should be verified through controlled analytical methods.

1 Documents Should Be Referenced in the Waste Profile

E.7 Fissile Material Limits

The quantity of fissile material in a waste package acceptable for disposal *shall* be demonstrated to meet any of the following:

1. Does not exceed 15 g of ^{235}U Fissile Gram Equivalence (FGE) per package.⁴¹⁰ FGE is determined by completing Table E.3.
2. Does not exceed 350 grams of ^{235}U FGE per package nor does it exceed 2 g of ^{235}U FGE per kilogram of waste (mass of the package is not included in the mass of the waste) (graphite and beryllium *must* not exceed 1% by mass of the waste). **Both limits *must* not be exceeded.**
3. Does not exceed the limits and the waste package meets the conditions as specified in Table E.4.⁷
4. Does not exceed the limits and the waste package meets the conditions as specified in Tables E.5 and E.6.⁷

Note: Waste containing uranium with an enrichment less than 0.90 percent ^{235}U by weight and those nuclides listed in Table E.3 such that their FGE is 1 percent or less of the tabulated grams of ^{235}U does not provide a fissile material concern.

If the waste does not comply with any of above, then a waste specific nuclear criticality safety evaluation (NCSE) may be necessary for acceptance of the waste. Please contact the RWAP Task Manager for further information on the criteria for performing a NCSE.

If the waste stream contains enriched uranium (^{235}U weight percent ≥ 0.90), ^{233}U , ^{239}Pu , ^{241}Pu , $^{242\text{m}}\text{Am}$, ^{243}Cm , ^{245}Cm , ^{247}Cm , ^{249}Cf , or ^{251}Cf , the ^{235}U FGE and ^{235}U effective enrichment is required to be reported with the profile by completing Table E.3 for each enrichment range. The waste *shall not* exceed the total FGE as specified for the effective enrichment.

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Table E.3: Calculation of ²³⁵U Fissile Gram Equivalence and Effective ²³⁵U Enrichment for LLW Packages

Nuclide (A)	High Activity Conc. (Bq/m ³) (B)	Volume of Package (m ³) (C)	Activity (Bq) (D)	Specific Activity (Bq/g) (E)	Mass of Nuclide (g) (D/E=F)	²³⁵ U FGE Factors (G)	²³⁵ U FGE (F*G=H)	If FGE is > 1% of ²³⁵ U Mass, then include (I)
²³³ U				3.6E+08		1.4E+00		
²³⁵ U				8.1E+04		1.0E+00		
²³⁷ Pu				2.3E+09		1.6E+00		
²⁴¹ Pu				3.8E+12		3.5E+00		
^{242m} Am				3.6E+11		5.4E+01		
²⁴³ Cm				1.9E+12		7.8E+00		
²⁴⁵ Cm				6.4E+09		2.3E+01		
²⁴⁷ Cm				3.5E+06		7.8E-01		
²⁴⁹ Cf				1.5E+11		7.0E+01		
²⁵¹ Cf				5.9E+10		1.4E+02		
Effective ²³⁵ U = $\frac{\text{Total } ^{235}\text{U FGE}}{\text{Total U}}$ Enrichment							TOTAL ²³⁵ U FGE	
Effective ²³⁵ U Enrichment =								

Instructions for completing Table E.3 are as follows:

1. Multiply high activity range of the waste stream (Bq/m³) by volume of waste to determine the maximum activity that could be present in a waste package for the nuclides listed above, resulting in Bq (Column D). For ²³⁵U, the activity is required to be included only if the ²³⁵U enrichment is equal to or greater than 0.90 percent by weight of total U.
2. Divide activity (Bq) (Column D) by the specific activity of the nuclide (Bq/g) (Column E) to determine the mass of the nuclide (Column F).
3. Multiply the mass (g) (Column F) of each nuclide by the ²³⁵U FGE factor (Column G) to determine FGE (Column H).
4. If the FGE value is greater than 1 percent of the ²³⁵U mass, then include in Column I to determine the total ²³⁵U FGE for a waste package.
5. Effective ²³⁵U enrichment (weight %) is calculated by dividing the total ²³⁵U FGE by the total mass (g) of uranium and multiplying by 100.

Table E.4: Allowable Package Fissile Loadings for Various Package Steel Weights.

²³⁵ U Enrichment Weight %	Maximum Grams of ²³⁵ U per Package			
	35 Pounds (16 kg) Steel	50 Pounds (23 kg) Steel	70 Pounds (32 kg) Steel	105 Pounds (48 kg) Steel
80 - 100	54	66	82	103
60 - 80	55	67	83	105
40 - 60	56	68	85	107
20 - 40	60	73	90	110
15 - 20	65	78	95	120
10 - 15	70	83	100	130
8 - 10	75	90	110	140
7 - 8	80	97	120	150
6 - 7	85	104	130	160
5 - 6	90	109	135	170
4.5 - 5	100	121	150	190
4 - 4.5	105	129	160	200
3.5 - 4.0	110	136	170	210
3.0 - 3.5	120	146	180	230
2.5 - 3.0	140	170	210	270
2.0 - 2.5	170	209	260	330
1.9 - 2.0	220	271	340	440
1.8 - 1.9	240	296	370	480
1.7 - 1.8	260	324	410	530
1.6 - 1.7	290	363	460	590
1.5 - 1.6	330	411	520	670
1.4 - 1.5	380	479	610	790
1.3 - 1.4	460	580	740	960
1.25 - 1.3	580	739	950	1250
1.20 - 1.25	670	854	1100	1460
1.15 - 1.20	780	1003	1300	1700
1.10 - 1.15	950	1220	1580	2100
1.07 - 1.10	1150	1514	2000	2700
1.04 - 1.07	1400	1829	2400	3200
1.02 - 1.04	1700	2214	2900	4000
1.00 - 1.02	2000	2643	3500	4800
0.99 - 1.00	2350	3143	4200	5800
0.98 - 0.99	2600	3500	4700	6500
0.97 - 0.98	3000	4029	5400	7600
0.96 - 0.97	3400	4600	6200	8500
0.95 - 0.96	3800	5171	7000	10000
< 0.95	4400	5943	8000	unlimited

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Instructions for using Table E.4 are as follows:

1. For LLW that has enrichment exactly at the boundary between two enrichment ranges, the larger fissile mass loading may be used.
2. Linear interpolations between steel weights are allowed. For steel weights in excess of 105 lb (48 kg), use the fissile mass for 105 lb (48 kg); do not extrapolate to a larger fissile mass.
3. Table E.4 is not acceptable for LLW containing more than 1 percent beryllium and carbon graphite by package weight.
4. For waste with nuclides found in Table E.3 of the NTSWAC (other than ^{235}U) such that their fissile gram equivalence (FGE) exceeds 1 percent of the grams of ^{235}U present in the waste, then these nuclides must be accounted for. To account for these nuclides, an effective enrichment must be calculated as: (^{235}U grams + FGE) divided by Total U and multiplied by 100 percent. The effective enrichment and the sum of the total ^{235}U FGE are determined by completing Table E.3, and they are used to verify compliance with Table E.4.
5. The total weight of steel in a package may include that of all inner drums such as 10-, 15-, and 30-gallon drums inside of a 55-gallon drum, and the outer drum.
6. Mixing drums in an overpack, such as commingling 15-, 30-, and 55-gallon drums in a 4 x 4 x 7 box, is acceptable as long as the individual drums comply with Table E.4 limits.

Low-level waste (LLW) packages meeting the restrictions as specified in Table E.5 and the fissile limits in Table E.6 satisfy the criticality safety criteria specified in Section 3.2.1.

Table E.5: Criticality Safety Restrictions for the Use of the Fissile Limits in Table E.6.

Volume of overpack, if used	> nominal 55 gallons (outermost container)
Volume of waste container	55 gallon drum (may contain inner drums such as a 10-gallon container inside a 30-gallon drum, both within the 55-gallon outer drum)
Space between 55-gallon drum (waste container) and inner containers	If filled, the material <i>must</i> be loose, pourable material (e.g., vermiculite).
Boron location	Boron <i>must</i> be inside 55-gallon drum.
Boron physical properties (natural)	≈ 20 atom % ^{10}B , ≈ 80 atom % ^{11}B
Boron weight Note: For example, 12.9 kg of B_2O_3 is required to have 4 kg of boron	\geq nominal 9 pounds (4 kg) Note: the form is not controlled; e.g., Boraxo, B_4C , and Borosilicate glass are all acceptable, but it <i>must</i> be loose/pourable.
Beryllium and graphite by package weight	$\leq 1\%$ by weight
Maximum hydrogen content of waste as packed and as received at the NTS	Hydrogen to ^{235}U atom ratio (H/X) <i>must</i> be less than 50. For example, this limit is equivalent to a water-to- ^{235}U mass ratio of 2. All hydrogenous materials, such as plastics and cellulose, may be assumed to be water to determine an equivalent water mass. That is, 1 g plastics = 1 g water.
Packaging (drum) material and mass	No restrictions.
^{235}U limits per package	The values presented in Table E.6.

Table E.6: Maximum Grams of ^{235}U as a Function of Enrichment (controls as specified in Table E.5)

^{235}U Enrichment (Weight %)	^{235}U (g)	^{235}U Enrichment (Weight %)	^{235}U (g)
0.95	9000	2.50	1810
0.96	8900	3.00	1650
0.97	8800	3.50	1554
0.98	8700	4.00	1485
0.99	8357	4.50	1436
1.00	7800	5.00	1400
1.02	7195	6.00	1225
1.04	6580	7.00	1179
1.07	5860	8.00	1125
1.10	5200	9.00	1072
1.15	4400	10.00	1028
1.20	3840	15.00	929
1.25	3500	20.00	873
1.30	3225	30.00	814
1.40	2895	40.00	776
1.50	2650	50.00	743
1.60	2460	60.00	720
1.70	2335	70.00	715
1.80	2215	80.00	700
1.90	2135	90.00	690
2.00	2060	100.00	680

Instructions for using Table E.6 are as follows:

1. For waste with nuclides found in Table E.3 of the NTSWAC (other than ^{235}U) such that their fissile gram equivalence (FGE) exceeds 1 percent of the grams of ^{235}U present in the waste, then these nuclides *must* be accounted for. To account for these nuclides, an effective enrichment *must* be calculated as: (^{235}U grams + FGE) divided by Total U and multiplied by 100 percent. The total ^{235}U FGE and effective ^{235}U enrichment are determined by completing Table E.3 and they are used to verify compliance with Table E.6.

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Appendix F

Requirements for Intermodal (Roll-Off Boxes) LLW Disposal

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Appendix F – Requirements for Intermodal (Roll-off boxes) LLW Disposal

Intermodal (roll-off) containers used for the disposal of bulk LLW *must* meet the following criteria. This criteria is specific to intermodal roll-off containers that will be unloaded and returned to the generator site. This criteria is in addition to the all other NTSWAC requirements.

- 1) **Prohibited** Waste Types:
 - a. Classified material
 - b. Asbestiform LLW (regulated)
 - c. MLLW
 - d. LLHB waste
 - e. PCB waste
 - f. Laboratory trash
 - g. PPE or combustible materials
 - h. Fine particulates that could become airborne
 - i. Gas cylinders, fire extinguishers, aerosol cans (pressurized or not)
 - j. LLW Beryllium Waste (particulate)
 - k. Sealed sources

- 2) **Acceptable** Waste Types:
 - a. Soil and gravel
 - b. Concrete rubble
 - c. Scrap metal
 - d. Building rubble
 - e. Other materials may be acceptable (with prior approval on a case by case basis)

- 3) Dose rates and Radiological Concerns
 - a. Dose rates should be less than 5 mR/hr on contact of the loaded intermodal container.
 - b. Dose rates must be less than 5 mR/hr @ 30 cm from the waste.
 - c. Return survey requirements must be clearly communicated to NTS waste operations upon profile submission.

- 4) Radionuclide Activities
 - a. Activities must be less than 300 PE-g based on conversions in the NTSWAC.
 - b. Tritium levels must not exceed 1.00E+05 Bq per intermodal.
 - c. Thorium or other radon-emanating nuclides may not exceed 1.00E+07 Bq per intermodal total.

- 5) Size, Weight, and Loading
 - a. All pieces within container must be reduced to no larger than 3 feet in any dimension.
 - b. Soils need to be free of scrap metals, large rocks, or debris.
 - c. Maintain a clearance of at least 18 inches between the top of the waste and the bottom of the top header brace located near the door end of the container.
 - d. Waste must fit into the intermodal container without wedging into any area of the container.

- c. The load must be prepared to prevent movement during transportation and allow the waste to exit under the header and through the rear door with sufficient clearance to prevent jamming.
 - f. Precautions must be taken during loading to ensure weight is not resting against the door.
- 6) Weights
- a. Weight of intermodal may not exceed 35,000 lbs.
 - b. Weight must be evenly distributed. Liners – Waste must be placed in a liner within the roll-off container.
- 7) Liners – Waste must be placed in a liner within the roll-off container
- a. Liners must be at least 18 mil for scrap metals and debris
 - b. Liners must be at least 12 mil for contaminated soils.
 - c. Liners must be secured around the waste package and cannot be attached to the inside of the intermodal container.
 - d. Sufficient absorbent material needs to be added to prevent any accumulation of free liquids inside the container, either from precipitation penetration or from condensation.
- 8) Marking and Labeling
- a. All markings and labels not intended for NTS or DOT use must be obliterated.
 - b. All placards must be removable by the transporter.
- 9) Container Design
- a. No top-hinged tailgate intermodals will be accepted for disposal.
 - b. There must be no need for NTS Operations to open the top lid of the container for any reason.
 - c. There must be attachments to secure the door in the open position during off-loading.
 - d. Containers must be at least standard 6' x 8' x 20' ft IP-1 intermodals with hard-lid covers.
- 10) Off-Loading
- Any container that does not off-load successfully will be buried intact.

Appendix G

Mixed Waste Forms

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Appendix G – Mixed Waste Forms

G.1 Pre-Treatment Notification Form for Mixed Waste

A. Generator Information

1. Company name:
2. Facility address:
3. Generator facility:
4. Primary technical contact: email: Phone: Fax:
5. Waste certification official: email: Phone: Fax:

B. General Waste Stream Information

1. Waste stream name:
2. Waste stream identification number:
3. Waste generating process description:
4. Estimated volume after treatment: Inventory attached
 - a. Estimated disposal container counts, container size, and weights:
 - b. Estimated container dose rates at 30 centimeters (mR/hr @ 30 cm):
5. Regulatory status. Check all boxes below that describe the regulatory status of the waste stream as generated:
 - Federally regulated (RCRA) hazardous waste (40 CFR 261). List all EPA hazardous waste numbers and applicable regulatory subcategories
 - State regulated hazardous waste codes:
6. Waste composition. Describe the gross composition/component of the waste stream and all hazardous constituents that contribute to any waste codes or LDR treatment standards.

CAS Number	Chemical Constituent	Waste Component

7. Reportable radionuclides. List the radionuclides that could be reportable in the waste stream:

Isotope	Activity (Bq/m ³)

C. Proposed Treatment Information

1. Applicable LDR Treatment Standards:
2. Treatment standards: Concentration Based Technology Based

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3. Proposed Treatment Facility:

- On-site Generator procedures:
 Commercial Facility name:
 Address:
 EPA Identification number:
 Permit number:

4. DOECAP audit number and date completed of the treatment facility:

5. Treatment process(es) or technology(ies):

6. Proposed final waste form:

- Solidified/Stabilized Debris Macroencapsulated
 Incinerator Ash Soil Other; describe:

7. Waste will contain sorbent.

What kind? *Sorbents used must meet 40 CFR 264.314(e)(1) or (2).*

8. Schedule for treatment:

9. Training or PPE necessary for visual inspection of treatment/waste:

Technical Contact Signature:

Date:

WCO Signature:

Date:

G.2 Mixed Waste Profile Annual Certification Example

Waste Profile Number:

Waste Profile Revision No.:

Facility:

Expiration Date:

WCO:

The above Mixed Waste Profile (MWP) is about to expire. The NTSWAC requires generators to recertify MWPs on an annual basis. No waste may be shipped under this profile after the expiration date unless it has been recertified or a new waste profile has been submitted and approved.

Please indicate your preference by checking the appropriate box below. If the waste stream has not changed significantly and the waste profile is still accurate, recertify by checking the third box below, providing the additional information requested, signing the certification statement, and returning this form to NNSA/NSO WMP. Upon approval, a letter will be sent which authorizes continued shipment of the waste stream for up to an additional year.

Check the appropriate box:

- This waste profile is no longer needed. Please cancel the waste profile.
- There have been significant changes to this waste stream. I understand that this waste stream cannot be shipped to the NTS until a revised or new profile is approved. I will revise it or submit a new waste profile.
- I want to recertify the waste profile. I have reviewed the revision no. _____ and certify that it is current, complete, and accurate description of the waste stream and the methods employed to ensure that the waste meets the NTSWAC.

If you checked the third box above, answer the following questions to confirm that the waste stream has not changed significantly. Significant changes will require a revision to the waste profile.

- | | | | | |
|--------------------------|----|--------------------------|-----|---|
| <input type="checkbox"/> | No | <input type="checkbox"/> | Yes | Has the waste generating process changed? |
| <input type="checkbox"/> | No | <input type="checkbox"/> | Yes | Have the methods used to perform radiological characterization changed? |
| <input type="checkbox"/> | No | <input type="checkbox"/> | Yes | Have the methods used to perform physical/chemical characterization changed? |
| <input type="checkbox"/> | No | <input type="checkbox"/> | Yes | Have any of the RCRA or state waste codes changed? |
| <input type="checkbox"/> | No | <input type="checkbox"/> | Yes | Has the LDR status (e.g., subcategories, treatment, etc.) changed? |
| <input type="checkbox"/> | No | <input type="checkbox"/> | Yes | Have there been any other changes to the waste stream that could affect management of the waste at NTS? |
| <input type="checkbox"/> | No | <input type="checkbox"/> | Yes | Do you have any new waste analysis data that confirms or improves your waste characterization? |

Provide the volume remaining in the waste stream:

If you checked any "Yes" boxes, please explain below and attach additional sheets as necessary.

Certification: I certify that, to the best of my knowledge, the information provided on this form and any attached documentation is accurate and complete.

WCO Signature:

Date:

Print Name:

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Appendix H

Glossary

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Appendix H - Glossary

Certified Waste: Waste that has been confirmed to comply with disposal site Waste Acceptance Criteria (WAC) under an approved certification program.

Chelating Agents: Amine polycarboxylic acids (e.g., EDTA, DPTA), hydroxy-carboxylic acids, and polycarboxylic acids (e.g., citric acid, carboic acid, and gluconic acid).

Chemical Screening: Process in which waste is examined for characteristics such as ignitability, corrosivity, and reactivity.

Classified Material: - Chemical compounds, metals, fabricated or processed items, machinery, electronic equipment, and other equipment or any combination thereof containing or revealing classified information.

“Classified Waste”: A term of art, defined for the purposes of the NTSWAC, to mean: low-level radioactive classified material (see glossary term above), including, but not limited to, nuclear weapons components and assemblies designated by the United States Government, pursuant to Executive Order, Statute, or Regulation, that require protection against information or material disclosure for reasons of national security. Such materials include radioactive waste to which access has been limited for national security reasons and cannot be declassified, and that *must* be managed in accordance with the applicable DOE Orders and DOD Directives.

Controlled Copy: An approved, uniquely numbered document regulated through controlled distribution.

Corrective Action: Measures taken to rectify conditions adverse to quality and, where necessary, to preclude repetition.

Disposal: The emplacement of Low-Level Waste (LLW) or Mixed Waste (MW) in a manner which is considered permanent in that routine recovery is not provided for.

Facility Evaluation: A documented review to evaluate a generator’s program to be in compliance with the WAC. Facility evaluations are conducted by Radioactive Waste Acceptance Program (RWAP) personnel in the form of an audit, surveillance, program reviews, or a combination of these.

Free Liquid: Liquids which readily separate from the solid portion of the waste including liquid that has been released during handling, storage, or transportation.

Generator: An individual, facility, corporation, government agency, or other institution that offers waste material for certification, treatment, storage, or disposal.

Hazardous Waste Component: Waste identified or listed in Title 40 Code of Federal Regulations (CFR) 261, or that otherwise meets the Resource Conservation and Recovery Act (RCRA) definition of hazardous, or waste identified by applicable state-of-generation hazardous waste regulations.

Incompatible Waste: Waste type that might react adversely with its containment materials or commingled waste as defined in Title 40 CFR 260.10.

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Inspection: A planned and documented activity, performed by authorized personnel, to verify that an item, service, or process conforms to specified criteria.

Item: An all-inclusive term used in place of any of the following: assembly, component, equipment, material, part, structure, or system. The term "item" may also include technical data, documents, computer codes, or samples.

Land Disposal Restricted (LDR) Waste: Waste that is prohibited from land disposal in accordance with Title 40 CFR 268.

Low-Level Waste: Low-level radioactive waste is radioactive waste that is not high-level radioactive waste, spent nuclear fuel, transuranic waste, byproduct material (as defined in section 11e.(2) of the Atomic Energy Act of 1954, as amended), or naturally occurring radioactive material. Small quantities of 11e.(2) byproduct material and naturally occurring radioactive material may be managed as low-level waste provided they can be managed to meet the requirements for low-level waste disposal (DOE M 435.1-1, Section IV.B.(4)). Test specimens of fissionable material irradiated for research and development only, and not for the production of power or plutonium, may be classified as LLW, provided the concentration of TRU does not exceed 100 nCi/g.

Mixed Waste: Waste containing both radioactive and hazardous components as defined by the Atomic Energy Act of 1954 (as amended) and the RCRA. MW *must* meet the LDRs as listed in Title 40 CFR 268.

Nonconformance: A deficiency in characteristic, documentation, or procedure that renders the quality of an item or activity unacceptable or indeterminate.

Package: The packaging, together with its contents; a container (usually a drum or box) of waste in final form for disposal, one or more of which may constitute a shipment.

Packaging: The assembly of components necessary to ensure compliance with U.S. Department of Transportation (DOT), U.S. Environmental Protection Agency (EPA), and NNSA/NSO requirements. It may consist of one or more receptacles, absorbent materials, radiation shielding, spacing structures, thermal insulation, and devices for cooling or absorbing mechanical shocks. The conveyance, tie-down system, and auxiliary equipment may sometimes be designated as part of the packaging.

Parcel: An individual component, item, or bag of waste, two or more of which may make up a package.

Pyrophoric Material: A material which, under normal conditions, is liable to cause fires through friction, retain heat from processing, or which can be ignited readily and, when ignited, burns so vigorously and persistently as to create serious transportation, handling, or disposal hazards.

Qualification: The characteristics or abilities gained through education, training, or experience, as measured against established requirements, such as standards or tests that qualify an individual to perform a required function.

Qualified: Having complied with the specific requirements or precedent conditions.

Quality Assurance: All those planned and systematic actions necessary to provide adequate confidence that a structure, system, or component will perform satisfactorily in service.

Nevada Test Site Waste Acceptance Criteria

Radioactive Waste: Solid, liquid, or gaseous material that contains radioactive nuclides regulated under the Atomic Energy Act of 1954 (as amended).

Radioactive Waste Management Site: Designated locations where radioactive waste handling, storage, or disposal operations are conducted. **Real-Time Radiography:** X-ray unit used to examine waste packages.

Removable Contamination: Removable radioactive material on the package surface or shipping vehicle.

Stabilization: A technique that limits the solubility and mobility of waste constituents by bonding or chemical reaction with the stabilizing material.

Sealed Sources: Sources where the radioactive material is contained in a sealed capsule, sealed between layers of non-radioactive material, or firmly fixed to a nonradioactive surface by electroplating or other means. The confining barrier prevents dispersion of the radioactive material under normal and most accidental conditions related to the use of the source.

Storage: For the purposes of the NTSWAC, storage refers to the long-term management of "classified waste."

Solidification: A technique that limits the solubility and mobility of waste constituents by immobilization through physical means.

Supplier: Any individual or organization who furnishes items or services in accordance with a procurement document. An all-inclusive term used in place of any of the following: vendor, seller, contractor, subcontractor, fabricator, consultant, and their subtier levels.

Tamper-Indicating Devices: Devices that may be used on containers and that, because of their uniqueness in design or structure, reveal violations of containment integrity.

Treatment: Any method, technique, or process designed to change the physical or chemical character of waste to render it less hazardous; safer to transport, store, or dispose; or reduced in volume. Five basic treatments are (a) volume reduction, (b) immobilization of radioactive/hazardous components, (c) change of composition, (d) removal of radioactive or hazardous components from the waste, and (e) solidification of liquids.

Uniform Hazardous Waste Manifest: The shipping document EPA Form 8700-22 originated and signed by the generator in accordance with the instructions included in the Appendix to Title 40 CFR 262.

Verification Sampling: A NNSA/NSO program that confirms the accuracy and precision of a generator's analytical data by obtaining split samples of the waste from the generator, and having them analyzed.

Waste Characterization: Determination of the physical, chemical, or radiological properties of waste.

Waste Stream: A waste or group of wastes from a process or a facility with similar physical, chemical, and radiological properties.

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References

Title 10 - Energy

- 1.1 10 CFR 61.56(a)(5)
- 1.2 10 CFR 61.56(a)(8)
- 1.3 10 CFR 850.32(b)
- 1.4 10 CFR 850.38
- 1.5 10 CFR 835. Appendix D

Title 29 - Labor

- 2.1 29 CFR 1910.178(0)(2)

Title 40 - Protection of Environment

- 3.1 40 CFR 260.11(a)
- 3.2 40 CFR 261
- 3.3 40 CFR 261.1(a)
- 3.4 40 CFR 262.20(a)
- 3.5 40 CFR 262.32(b)
- 3.6 40 CFR 264.170 - .179
- 3.7 40 CFR 264.314(d)
- 3.8 40 CFR 265.177
- 3.9 40 CFR 265.314
- 3.10 40 CFR 265.315
- 3.11 40 CFR 268
- 3.12 40 CFR 268.7
- 3.13 40 CFR 761.50(b)(7)(ii)
- 3.14 40 CFR 761.60(b)(4)
- 3.15 40 CFR 761.60(b)(6)(ii)(A)
- 3.16 40 CFR 761.61(a)(5)(i)(B)(2)(ii)
- 3.17 40 CFR 761.61(a)(5)(v)(A)
- 3.18 40 CFR 761.62(b)(1)(i and ii)
- 3.19 40 CFR 761.64(b)(2)
- 3.20 40 CFR 761.79(g)(6)
- 3.21 40 CFR 761.62(b)(4)(I)
- 3.22 40 CFR 761.40

Title 49 - Transportation

- 4.1 49 CFR 172.200 - .205
- 4.2 49 CFR 172 Subparts D and E
- 4.3 49 CFR 172.310
- 4.4 49 CFR 173.410
- 4.5 49 CFR 173.24
- 4.6 49 CFR 173.423
- 4.7 49 CFR 173.427
- 4.8 49 CFR 173.427(a)(6)(ii)
- 4.9 49 CFR 397.101
- 4.10 49 CFR 173.453

Nevada Administrative Code (NAC)

- 5.1 NAC 444.971(1)
- 5.2 NAC 444.971(2)
- 5.3 NAC 444.8565(2)(b)
- 5.4 NAC 444.8632

DOE Orders

DOE Order 420.1, "Facility Safety"

- 6.1 420.1 4.3.2
- 6.2 420.1 4.3.3

DOE Order 474.1, "Control and Accountability of Nuclear Materials"

DOE Manual M 474.1-1 "Control and Accountability of Nuclear Materials"

- 6.3 474.1-1 A II. 5(a)(2)

DOE Order 435.1, "Radioactive Waste Management"

DOE Manual M 435.1-1 "Radioactive Waste Management"

- 6.4 435.1-1 Attachment 2, 49
- 6.5 435.1-1 III. A
- 6.6 435.1-1 IV. G(1)
- 6.7 435.1-1 IV. G(1)(a)
- 6.8 435.1-1 IV. G(1)(b)
- 6.9 435.1-1 IV. G(1)(c)
- 6.10 435.1-1 IV. G(1)(d)(1)
- 6.11 435.1-1 IV. G(1)(d)(2)
- 6.12 435.1-1 IV. G(1)(d)(3)
- 6.13 435.1-1 IV. G(1)(d)(4)

- 6.14 435.1-1 IV. G(1)(d)(5)
- 6.15 435.1-1 IV. G(2)
- 6.16 435.1-1 IV. I
- 6.17 435.1-1 IV. I(1)
- 6.18 435.1-1 IV. I(2)
- 6.19 435.1-1 IV. I(2)(b)
- 6.20 435.1-1 IV. I(2)(d)
- 6.21 435.1-1 IV. J(2)
- 6.22 435.1-1 IV. K
- 6.23 435.1-1 IV. O

DOE Order 414.1, "Quality Assurance"

- 6.24 414.1 4(b)(2)(a)

Federal Manuals, Policy, and Organizations

- 7.1 DOE Hoisting & Rigging Manual, (DOE-STD-1090-2004)
- 7.2 State of Nevada Solid Waste Disposal Site Permit (SW1300001, current revision)
- 7.3 "Position Paper on the Proper Characterization and Disposal of Sealed Radioactive Sources." Revision 2, October 1997
- 7.4 Memo 9109-35 to Carol A. Shelton from Steve Okosisi, 11-21-1995, "Request for Evaluation of NVO-325 Criteria to Ensure Safe and Compliant Radioactive Waste Disposal Operations."
- 7.5 NNSA/NSO RWAP
- 7.6 NNSA/NSO Operations
- 7.7 "Test Methods for Evaluating Solid Waste. Physical/Chemical Methods," EPA Publication SW-846, Chapter 1, Section 1.0, 12/1996
- 7.8 Low-Level Waste Licensing Branch, Technical Position on Radioactive Waste Classification. May 1983, Revision 0, Section C.1.c
- 7.9 NNSA/NSO Performance Assessment
- 7.10 USEPA "Waste Analysis at Facilities that Generate, Treat, Store, and Dispose of Hazardous Wastes" PB94-463603, OSWER 9938.4-03, April 1994, Section 1.5.2
- 7.11 Title 42 USC, Chapter 23, Section 2021.c(b)(2)
- 7.12 "Position on the Use of Lead Shielding for the Disposal of Low Level Radioactive Waste at the Nevada Test Site," current version.
- 7.13 DOE/NV letter from Carl P. Gertz, 8/19/1998, "Contamination Release Limits for Radioactive Waste Transport Vehicles."
- 7.14 T. P. McLaughlin. "Nuclear Criticality Safety Review of Low-Level Waste Disposal at the Nevada Test Site Radioactive Waste Management Sites." CSR-A490.100, August 2002.

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- | 7.15 Bechtel Jacobs Company. "Nuclear Criticality Safety for Emplacement of ORR Waste at the Nevada Test Site, NCSE-MS-NTS1492, Rev. 0, August 2001
- | 7.16 S. G. Vessard and T. P. McLaughlin, "Nuclear Criticality Safety Evaluation of Low Level Waste Disposal at the Nevada Test Site Radioactive Waste Management Sites," CSE-A490.101. August, 2002.
- | 7.17 S. G. Vessard and T. P. McLaughlin. "Nuclear Criticality Safety Evaluation of Low Level Waste Disposal at the Nevada Test Site Radioactive Waste Management Sites," CSE-A490.103. June, 2003
- | 7.18 Memo A490-06-TC-0005 to James B. Zovi from Thomas Collens, May 23, 2006. "Isotopes with No Direct Plutonium Equivalent Conversion Factor in the Nevada Test Site Waste Acceptance Criteria."

NTS Permits and Plans

- 8.0 RWAP-P2, RWAP Waste Analysis Plan
- 8.0 RWAP Procedure. RWAP-03, *Waste Generator Approval Process*

DOE G 435.1-1, "Implementation Guide for use with DOE M 435.1-1, Chapter III, Transuranic Waste Requirements," states the following:

"Determining whether waste exceeds the 100 nCi/g (3700 Bq/g) shall be in accordance with the requirements and guidance issued by the Carlsbad Area Office in the *Transuranic Waste Characterization Quality Assurance Program Plan, Waste Acceptance Criteria for the Waste Isolation Pilot Plant*, and/or other controlling documents. Waste which does not exceed the 100 nCi/g limit is to be managed in accordance with the low-level waste requirements of DOE M 435.1-1."

CH-WAC, Section 3.3, Radiological Properties, states in part:

The first group indicates the activities and masses of the ten WIPP-tracked radionuclides (i.e., Am-241, Pu-238, Pu-239, Pu-240, Pu-242, U-233, U-234, U-238, Sr-90, and Cs-137) and the TRU alpha activity concentration (i.e., >100 nCi/g of alpha-emitting TRU isotopes with half lives greater than 20 years) of the waste. This set of radiological properties is regulated by the U.S. Environmental Protection Agency (EPA) in accordance with 40 CFR Parts 191 and 194 (references 27 and 16). Estimates of their activities and masses shall be derived from a system of controls certified by CBFO that includes acceptable knowledge (AK), computations, measurements, sampling, etc. (reference 17, appendix Waste Component Limits, WCL). Appendix A provides the methods and requirements by which to characterize the radiological composition of the contact-handled TRU (CH-TRU) waste utilizing radioassay techniques.

Section 3.3.3, TRU Alpha Activity Concentration, states in part:

Acceptance Criterion. TRU waste payload containers shall contain more than 100 nCi/g of alpha-emitting TRU isotopes with half-lives greater than 20 years. Without taking into consideration Total Measurement Uncertainty (TMU), the TRU alpha activity concentration for a payload container is determined by dividing the TRU alpha activity of the waste by the weight of the waste. . . . The TRU alpha activity concentration shall be reported to the WIPP Waste Information System (WWIS); however, there are no reporting requirements for its associated TMU.

Based on the above, NNSA/NSO will evaluate and accept the determination of TRU alpha concentration of LLW as follows:

The TRU alpha activity concentration shall be determined in accordance with the CH-WAC. Total measurement uncertainty is not required to be added to the TRU alpha activity concentration (i.e., Statistical level of confidence is not applicable). Estimates of the activities and masses shall be derived from a system of controls certified by CBFO that includes acceptable knowledge (process knowledge), computations, measurements, sampling, etc.

For waste generators that do not have CBFO certification of the assay process, equivalent practices for determining the TRU alpha activity concentration will be considered by NNSA/NSO for acceptance (e.g., acceptable level of certainty of 90%, review of acceptable knowledge, use of lower limit of detection values, graded approach, assay systems validated by known standards, etc.).

“DE-EM0000323
Section J, Attachment K
List B – Requirements Change Notice Process

In accordance with the requirements of the DEAR clause in Section I of the contract entitled, “970.5204-2 Laws, Regulations and DOE Directives,” the Contracting Officer (CO) will notify the contractor in writing of the Department’s intent to revise List B and provide the contractor with the opportunity to assess the effect of the contractor’s compliance with the revised list on contract cost and funding, technical performance, and schedule; and identify any potential inconsistencies between the revised list and the other terms and conditions of the contract. Part of the process is to evaluate administrative and environment, safety and health requirements for impact to the contract. The contractor provides written notification of the results of the impact assessment to the CO, with a copy to the Contracting Officer’s Representative (COR) and the Oak Ridge Office (ORO) Directives Management Group (DMG). As part of the impact assessment, the contractor determines (1) whether it agrees that the Directive is applicable, (2) if an Implementation Plan (IP) is required (i.e., the Directive cannot be implemented within existing funds and/or within 120 calendar days from the date of the CO’s request for an impact assessment), and (3) other information required by DEAR970.5204-2. The impact assessment is due within 30 calendar days of the date of the CO’s request letter or as directed in the text of the letter. DOE Directives cannot be removed from List B without approval by the COR and the CO.

When the contractor cannot fully implement new or revised requirements of Administrative Directives within existing funds and/or within 120 calendar days from the date of the CO’s letter requesting an impact assessment, the contractor shall prepare an Implementation Plan (IP) provide it to the CO with a copy to the COR and DMG. A compliance line is included in List B with the Directive for which an IP is required stating the date the IP is due, updated when the IP is submitted and approved, and deleted when the IP is closed. When preparing an IP, the contractor shall comply with Implementation Plan Guidance which is a part of this attachment.

In addition, for contracts containing Work Smart Standard (WSS) Sets contractors shall ensure that the WSS Set and their development/maintenance process meet the requirements of DOE M 450.3-1.

The contractor is responsible for initiation of the quarterly revisions to List B by submission of a draft Requirements Change Notice (RCN) to the ORO DMG. The CO will update List B on a quarterly basis by the issuance of a contract modification which includes the approved RCN. This list describes the operating requirements with which the contractor must comply. Requirements are added to the contract via the RCN process described herein. When the implementation plans are developed, approved, or closed, the compliance is so annotated on the RCN.

Schedule for Issuance of RCNs. The established schedule for issuance of RCNs is as follows:

SCHEDULE FOR ISSUANCE OF REQUIREMENTS CHANGE NOTICES				
CALENDAR YEAR QUARTERS	CONTRACTOR’S SUBMISSION OF FINAL DRAFT TO DMG	DMG’S TARGET SUBMISSION DATE TO COR FOR APPROVAL	COR’S TARGET SUBMISSION DATE TO DMG & TRANSMISSION TO CO	CO’S TARGET DATE TO ISSUE CONTRACT MOD
First Quarter (Jan, Feb, Mar)	February 28	March 15	March 21	March 31
Second Quarter (Apr, May, Jun)	May 31	June 15	June 21	June 30
Third Quarter (Jul, Aug, Sep)	August 31	September 15	September 21	September 30

Fourth Quarter (Oct, Nov, Dec)	November 30	December 15	December 21	December 31
-----------------------------------	-------------	-------------	-------------	-------------

Content: Unless other arrangements have been made with the contractor, the quarterly RCN shall include the following:

- (a) The attached form entitled, "*U.S. Department of Energy, Requirements Change Notice*," which will provide an overall picture of changes currently effected in this update of List B.
- (b) A *Summary of Changes* which identifies the authority for updating List B. The Summary of Changes delineates the following dates: (1) date of the CO impact assessment request; (2) date of contractor's impact assessment response; (3) date of CO letter to contractor in response to contractor's request for clarification or guidance; and (4) if needed, implementation plan submission and/or approval dates.

NOTE: Environment Safety & Health (ES&H) Directives are required to be listed on List B as well as in the WSS Set. ES&H-related Directives are annotated by italics and a/or footnote.

The contractor shall provide the DMG with the name of a Directives Point of Contact.

The DMG will provide the contractor with the opportunity to comment on Department of Energy (DOE) Directives. Contractors must provide comments to the DMG on draft DOE Directives by the stated deadline for their concerns to be recognized by DOE Headquarters.

Contractor Directives Points of Contact must register on the DOE Directives Portal to receive notification of the publication of new/revised DOE Directives and the cancellation of DOE Directives.

Implementation Plan Guidance

An IP must contain the following information described in (a) through (n) below. Contractors may submit printouts from internal tracking/trending systems in lieu of a standard IP if all the required elements are included in the system printout. If a particular heading is not applicable to a specific situation, enter "Not Applicable" or "None."

An IP must also include a statement that all other applicable requirements in the new Directive/standard are fully implemented. If the entire Directive/standard was placed in the contract, the IP must include a brief justification for any requirements considered to be not applicable.

- (a) Date of Submission. Self-explanatory.
- (b) Applicability. The plan must clearly identify which site, organization, activities, or facility(ies) are covered.
- (c) Identify Requirements Not Fully Implemented. Identify the requirement(s) that is not fully implemented by source document number, title, paragraph, section number, etc.
- (d) Description of the Noncompliance(s). Discuss the nature and degree of the noncompliance. For example, if the standard/requirement is partially implemented, discuss what is in place and what is not. Identify the major systems or activities affected. The discussion must be sufficient to enable reviewers to draw conclusions on the degree of risk resulting from non-implementation, the appropriateness of the action steps, and the reasonableness of the resource estimates.
- (e) Implementation Assumptions. Describe basic implementation assumptions, such as clarification regarding methods for determining applicability, interpretations used in determining compliance status and implementation planning, etc. If this information is contained in the assumptions field of an approved S/RID or WSS Set, repeat the text of the approved implementation assumption. If there are conflicting

requirements, identify which of the conflicting requirements will be implemented and explain reasons for the selection.

(f) Exemptions. List any exemption requests (both submitted and under review or approved) that are related to the requirements covered by the plan and include a copy of them as an attachment. Exemption requests are not customarily submitted for WSS Sets or S/RIDs.

(g) Compensatory Measures. If compensatory measures are deemed necessary to offset increased ES&H risks associated with the noncompliance, include a description of those measures and a schedule for implementing them. Summarize the compensatory measures in the first paragraph, followed by a more detailed description and explanation in subsequent paragraphs. Clearly indicate what measures are in place, which will be implemented before DOE approval, and which will be implemented only after DOE approval. Distinguish between measures that were in place before discovery of the noncompliance and measures put into place because of the noncompliance. Provide a schedule with dates for initiation, duration, and completion of measures that are not fully in place.

If compensatory measures are not required, provide an explanation for this conclusion that is related to the discussion of increased risk under the next heading. Some examples of situations where compensatory measures may not be needed are:

- The noncompliance has no direct or immediate impact on worker or public health or safety or protection of the environment.
- The probability or the consequences of an accident that would be prevented by compliance with the requirement are negligible during the time the corrective actions are being implemented (e.g., operations are shut down).

(h) Risk of Not Implementing Immediately. Discuss any ES&H, security, quality assurance, or other concern created by the delay in implementation of the requirement. Provide a full description of how the existing or planned compensatory measures reduce the risk. If there is little or no risk associated with the noncompliance, provide a sound, reasoned justification for that statement.

(i) Actions Needed to Implement. Identify the specific actions needed to fully implement the requirement. Include the submission of budget requests as an action where appropriate. Identify the organization responsible for implementing each action and provide milestones and schedules. If implementation is expected to take many months and multiple years, provide interim as well as ending milestones. The interim milestones give the contractor and ORO a basis for assessing performance in complying with the longer term requirements.

Duration schedules rather than fixed dates may be provided for items that need additional resources or that are dependent on completion of other actions (e.g., six months from receipt of funding or two months from completion of Phase II of the Safety Analysis Report). Fixed date schedules must be provided for actions with sufficient resources that are not dependent on other actions. A sample format is provided below.

<u>Activity</u>	<u>Responsibility</u>	<u>Start/End</u>
Revise SPP-XXX to include inspection of fire dampers	Fire Protection Division	Start 01/15/2003 End 01/01/2004

When appropriate, provide attachments containing drawings, plans, calculations, procedures, test results, relevant history of the system, and any other supporting information.

(j) Additional Resources Needed. If no additional resources are needed, the IP must so state. The resource impacts of the corrective actions must be broken out by:

- Organization or Business Unit, if applicable;
- What is funded and what is not (by program/funding source);
- Whether or not the resources are included in the ES&H Management Plan; and
- Whether any of the needed funds are included in an approved budget request.

Budget requests must be submitted for all unfunded actions included in an approved IP. If the budget request is denied and the IP relates to implementation of an S/RID or WSS Set standard/requirement, the contractor must revise the IP to so state and describe whether funding will be requested the following year or if an alternate corrective action is planned. If corrective actions are to be completed by reallocating amounts already funded, describe what other scheduled activities will not be completed because of the reallocation. The COR must approve any reallocation of existing funds. If the actions in another IP are or will be affected, identify the IP and attach a copy.

(k) Justification for Approval or Continued Operation. Referring to specific activities, explain why it is acceptable to continue operating while in noncompliance with the requirement(s). If appropriate, discuss how the existing or planned compensatory measures contribute to this conclusion. Describe the nature and results of any tests or analyses conducted to support these conclusions.

The justification for approval may refer to any type of net benefit arising from the approval, including avoidance of costs, reduction in risk to workers and the public, improved operational efficiency, etc. Discuss other factors or risks associated with approval or disapproval, such as exposure to possible legal action during the period of noncompliance.

(l) List of Attachments. Self-explanatory.

(m) Contractor Approvals. Provide the internal contractor approval sheet that shows that the IP has received internal review and approval before submission to ORO.

(n) Technical Point of Contact. Include a contact name and telephone number for a person or persons who can answer detailed technical questions about the IP.

The contractor should not wait for formal DOE approval and should begin working the funded portions of an IP as soon as it is submitted. If questions arise or if there is a need for direction on specific implementation actions before DOE approval is granted, the contractor submits the issues to the CO with a copy to the COR and DMG.

Implementation Plan Revisions. Contractor IP preparers must make requested changes and submit revised plans within 30 calendar days of receipt of the ORO change request or as directed in the CO's letter. Contractors submit revised IPs to the CO, with a copy to the COR and DMG. Revised plans are reviewed and approved in the same manner as the original plan. A revised IP is also required when the contractor makes substantive changes to an IP because of changing conditions or because of inability to meet deadlines established in the IP. The letter transmitting the revised IP must briefly explain the reason for the revision. If the revision is due to inability to meet an established deadline, the revised IP must be submitted before the existing commitment date is missed.

Contractors must not delete uncompleted actions from an IP between one revision and the next. If multiple revisions of a plan are involved, completed items must be noted as such in at least one revision before being deleted.

Contractors send a letter to the CO, with a copy to the COR and DMG, requesting closure and stating that the corrective actions in the IP have been completed. Any ongoing activities are noted in the letter.

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U.S. Department of Energy		Page 1 of XX
REQUIREMENTS CHANGE NOTICE		
PROJECT: Contract Baseline Documentation	LOCATION: Oak Ridge, Tennessee	
CONTRACTOR:		
CONTRACT NO.:	DATE OF CONTRACT:	
<p>This Requirements Change Notice (RCN) No. OR-XX incorporates into List B, Contract No. DE-XXXX -XXXXXX, the attached list of applicable documents, which have been assessed against the terms and conditions of the contract in accordance with the Clause in Section I entitled, "970.544-2 Laws, Regulations and DOE Directives." This is a complete numbered list of administrative requirements and a representation of environment, safety, and health (ES&H) requirements. (In accordance with the Contractor's established procedure, information regarding ES&H-related directives and their applicability can only be obtained from specific WSS sets and S/RID functional areas sets.) ES&H-related directives in WSS sets and S/RIDs have an ES&H footnote in List B. Changes to List B are indicated by bold type. Below is a list of the directives incorporated herein:</p> <p style="text-align: center;"><u>EXECUTIVE SUMMARY OF DIRECTIVE CHANGES</u></p> <p><u>ADDITIONS:</u></p> <p><u>DELETIONS:</u></p> <p><u>EXTENSIONS:</u></p> <p><u>UPDATES:</u></p> <p><u>IMPLEMENTATION PLANS (REVISED COMPLIANCE STATUS):</u></p> <p><u>ADMINISTRATIVE CORRECTION:</u></p>		
DOE AUTHORIZING SIGNATURE:	DATE:	
XXXXXX, Contracting Officer's Representative		

