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C.1 IDAHO CLEANUP PROJECT (ICP) OVERVIEW AND RESTORATION REQUIREMENTS

C.1.1. Contract Purpose and Overview

The purpose of this contract is to safely accomplish as much of EM's cleanup mission as possible within available funding while meeting regulatory requirements through the contract completion date. This is a Cost-Plus-Incentive Fee contract that includes cost and schedule performance incentives. The contract reflects the application of performance-based contracting approaches and techniques that emphasize results/outcomes and minimizes "how to" performance descriptions. The Office of Environmental Management (EM) Idaho Cleanup Project (ICP) contractor is referred to as "the contractor." The Idaho National Laboratory (INL) site contractor conducting work for the Office of Nuclear Energy, Science and Technology is referred to as "the INL contractor." The contractor has the responsibility for total performance under the contract, including determining the specific methods for accomplishing the work. The contract takeover date is May 1, 2005, and the contract completion date is September 30, 2012. The contract was extended from October 1, 2012, through September 30, 2015. If this statement of work (SOW) is accomplished earlier than the contract completion date, the contractor shall complete additional work scope (C.8) under this contract term as approved by DOE and within the annual and total funding constraints of Section B.14, Total Contract Target Cost, Fee, and Completion Date (including fee to be negotiated).

C.1.2 End State Vision/Overview

The following work is required to be completed by September 30, 2015 under this contract:

For Idaho Nuclear Technology and Engineering Center
(Section C.2 – remaining scope is covered under Section C.8 for the extension period):

- Demolish or disposition all excess facilities COMPLETE
- Design, construct, and operate a treatment facility for liquid sodium bearing waste (SBW)
- Empty and disposition 11 Tank Farm Facility waste tanks 7 of 11 Completed
- Place all EM Spent Nuclear Fuel (SNF) in safe dry storage COMPLETE
- Deactivate EM SNF wet storage basins (CPP-603) COMPLETE
- Dispose or disposition all excess nuclear material COMPLETE
- Complete all Voluntary Consent Order (VCO) tank system actions COMPLETE
- Maintain all SNF and SNF facilities

- Maintain completed remediation including demolition end-states
- Continue disposition of RH TRU
- Complete all required OU 3-13 remediation, including the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Tank Farm Interim Action COMPLETE
- Maintain and operate the INEEL CERCLA Disposal Facility (ICDF)

For Radioactive Waste Management Complex (Section C.3 – remaining scope is covered under Section C.8 for the extension period):

- Retrieve stored remote-handled (RH) low level waste (LLW) and dispose at the Subsurface Disposal Area (SDA), or other appropriate disposal facility COMPLETE
- Retrieve stored RH transuranic (TRU) waste and dispose at WIPP or transfer to ANL-W
- Retrieve and dispose of waste resulting from EM cleanup activities including low level, hazardous, mixed low level, alpha-contaminated mixed low level and newly generated mixed and non-mixed TRU waste at an appropriate disposal facility through 3rd Quarter FY15
- Demolish and remove facilities no longer needed as defined in the SOW
- Continue operation of the vacuum vapor extraction system
- Continue groundwater monitoring program
- Complete and implement Final Comprehensive Record of Decision (ROD) for Waste Area Group (WAG) 7 (OU 7-13/14) COMPLETE
- Complete exhumations under ARP VII and ARP III
- Complete construction of ARP VIII
- Complete design and foundation of ARP IX
- Maintain infrastructure in fully operable condition

For Test Area North (Section C.4 – remaining scope is covered under Section C.8 for the extension period):

- Demolish all EM facilities (only facilities required for groundwater remediation remain) COMPLETE
- Complete all VCO tank system actions COMPLETE
- Complete all remediation of contaminated soils and tanks at Test Area North (TAN) (OU 1-10) COMPLETE
- Maintain infrastructure in fully operable condition
- Maintain completed remediation including demolition end-states
- Close or transfer TAN landfill to INL contractor following completion of TAN demolition (NOT APPLICABLE WITH THE CONTRACT EXTENSION SCOPE IN SECTION C.8)

For Test Reactor Area (Section C.5 – remaining scope is covered under Section C.8 for the extension period):

- Demolish all EM-owned facilities COMPLETE

- Disposition the Engineering Test Reactor (ETR) and the Materials Test Reactor (MTR) COMPLETE
- Complete all VCO Tank system actions COMPLETE
- Complete Five-year review of OU 2-13 COMPLETE
- Complete remedial actions for Test Reactor Area (TRA) release sites under OU 10-08 COMPLETE

***For Power Burst Facility (Section C.6 – remaining scope is covered under Section C.8 for the extension period*):**

- Disposition Power Burst Facility (PBF) Reactor COMPLETE
- Complete Five-year review of OU 5-12 COMPLETE

For Miscellaneous Sites (Section C.7 – remaining scope is covered under Section C.8 for the extension period):

- Complete all required remedial actions for OU 10-04 COMPLETE
- Perform actions necessary to complete the OU 10-08 ROD by the enforceable milestone and implement the ROD, if it is finalized and signed during the contract period. COMPLETE

In performing the above work the contractor shall:

- Pursue continuous improvement against safety goals and metrics while implementing productivity improvements and accelerations.
- Minimize and eliminate unnecessary infrastructure and overhead costs to the maximum extent practicable.
- Reduce the EM footprint liability on site through demolition of EM facilities and consolidation of waste and materials storage on site to the fewest locations possible.
- Achieve end states that provide the lowest risk and cost and the fewest post closure activities as possible.
- Isolate contamination from the environment, through use of passive measures that minimize future cleanup liabilities, and respond to releases and events swiftly and effectively.
- Challenge existing work plans and pursue safe, aggressive and efficient alternatives to achieve equivalent cleanup and risk reduction faster and at less cost. Eliminate non risk-reduction activities.
- Minimize construction of new facilities with a bias towards reutilization or modification of existing facilities or capabilities to satisfy cleanup requirements.
- Minimize or eliminate the creation of newly generated waste.

C.1.3 Contractor Performance

The contractor shall furnish all personnel, facilities, equipment, material, services and supplies (except as set forth in this contract to be furnished by DOE), and otherwise do all things necessary to accomplish work in a safe, and efficient manner.

The contractor shall be responsible for providing oversight and project management functions to enable the safe completion of this SOW. The contractor shall be responsible for planning, and executing the programs, projects, operations and other activities as described in this SOW. This shall include the utilization of information, material and other property of DOE; the collection of revenues; and the acquisition, sale, or other disposal of Government property for DOE in accordance with Section I, FAR 52.245-5, necessary for the implementation of this scope of work. Additionally, the contractor shall develop, implement and maintain a resource-loaded integrated baseline as described in Section H.1, Project Control Systems and Reporting Requirements.

The completion of the project will require DOE and the contractor to successfully identify, analyze, resolve, mitigate, eliminate or avoid many types of risk. Risk to the worker, the public and the environment are managed through the Integrated Safety Management System (ISMS) and Environmental Safety and Health Program (ES&H) identified in Section C.9.2. Risk to the project schedule and cost is classified as programmatic risk and shall be managed through the Programmatic Risk Management process specified in DOE Order 413.3. The contractor shall address programmatic risks and uncertainties in accordance with Section H.2, Programmatic Risks and Uncertainties.

C.1.4 Agency Agreements and Regulatory Interface

The contractor shall comply with all applicable site environmental permits and compliance documents including, but not limited to, Resource Conservation and Recovery Act (RCRA) permits, air permits, Waste Water Land Application permits, the Federal Facility Agreement and Consent Order (FFA/CO) dated December 1991; the Site Treatment Plan under the Federal Facility Compliance Act; the Settlement Agreement dated October 1995, as amended. Significant new regulatory requirements, compliance agreements or commitments that are established during the term of the contract that are beyond the contractor's control are addressed in accordance with Section B.21(a). Contractor proposed end states for both high-risk facilities disposition and CERCLA remediations (without currently approved RODs) are subject to regulatory approval, as required. If the regulator approves an end state that is different from the contractor proposed end state, the contractor shall meet the regulatory approved end state and the difference in end states shall not constitute a change under the changes clause nor form the basis for an equitable adjustment to the Target Cost per Section B.21(b).

The contractor has authority to negotiate, subject to DOE approval, with regulatory agencies. The contractor shall work with DOE, regulatory agencies, and other INL entities and contractors, to reach collective agreements on interface protocols, including direct interaction by the contractor with regulatory agencies, that will provide for the most efficient and effective resolution of regulatory issues.

The INL must function as a single site for many regulatory purposes. Therefore, a site-wide coordination and integration function is necessary. The contractor shall be responsible for coordinating compliance with site-wide level requirements under the RCRA and Idaho Hazardous Waste Management Act and the CERCLA under the FFA/CO. Responsibilities

include completing and submitting, after appropriate coordination with all involved INL entities, site-wide level regulatory reports, consent order and agreement tracking and closure, site-wide permit applications, including permitting for the Site Treatment Plan under the Federal Facility Compliance Act, and maintenance of the CERCLA Administrative Record and Information Repository, etc. The ICP contractor is not responsible for facility-specific regulatory compliance, record keeping and permit applications at facilities it does not manage. Facility-specific issues or actions, related to current or ongoing facility-specific permit applications, releases to the environment, and compliance issues are the responsibility of the contractor managing the facility. The contractor shall also coordinate and facilitate resolution of RCRA/CERCLA interface issues at the INL.

The contractor shall submit draft environmental and regulatory decision and compliance related documents and reports to DOE in sufficient time to allow DOE's 30-day review. This allows subsequent comment resolution and approval, or concurrence to meet deadlines for submittal to regulatory agencies.

The contractor shall submit to DOE and/or the regulator, as required, certified permit modification requests (site-wide level RCRA permits, EM facility-specific air permits, EM facility-specific Waste Water Land Application permits) to assume ownership, i.e., change the "operator" name and identify a "responsible corporate officer" responsible for the permit no later than 30 days after the contract award date.

Since the INL contractor has the site-wide coordination role for all regulatory programs other than RCRA and CERCLA, the ICP contractor shall provide to the INL contractor the appropriate information, data (certified if necessary), and support necessary to complete its site-wide functions including, but not limited to, the following areas:

- Site-wide air emission applications, permits and reporting per the Clean Air Act and the Idaho implementing regulations.
- Site-wide monitoring, surveillance and reporting for liquid effluents, drinking water, storm water and groundwater to demonstrate compliance with the Clean Water Act and other water quality requirements.
- Soils, air, and biota surveillances and monitoring to determine the impact of operations on the environment and natural resources.
- Site-wide compliance reports, data, and records, required by the Toxic Substances Control Act, Federal Insecticide, Fungicide and Rodenticide Act, Emergency Planning and Community Right to Know Act, and cultural resource management laws and regulations.
- National Environmental Policy Act (NEPA) actions

C.1.5 Statement of Work Format

The remaining subsections of C.1 describe the general contract requirements for work activities that apply to Sections C.2 through C.8. However, with the contract extension beginning October 1, 2012 through September 30, 2015, Sections C.2 through C.7 were primarily completed effective September 30, 2012. Section C.8 is the primary scope of work

for the extension period, including work scope not completed during the initial contract period. Within these sections are descriptions of requirements that present the highest technical, cost and schedule risk for that geographic area. Also in each section are references to exhibits containing detailed information and descriptions of facilities, waste quantities and forms, remediation sites, utility systems, and nuclear materials. The facility exhibits include both buildings (occupied) and structures (unoccupied). The remaining sections (C.9 through C.12) represent the contract requirements that apply to all work activities conducted in the multiple geographic areas.

C.1.6 Facility Demolition Preparation and Planning

The contractor completed all planned D&D except for scope listed in Section C.8 for the extension period. Section C.1.6 is not generally applicable to Section C.8. However, if DOE directs additional D&D scope, this section will be applicable.

The contractor shall plan facility demolition and removal in accordance with best industry practices. The contractor may prepare planning documents for individual facilities (or groups of facilities) to optimize workforce utilization and cost. The contractor shall coordinate with DOE to ensure the proper Labor Standard is applied.

C.1.6.1 Property Disposition

The contractor shall disposition personal property in accordance with Personal Property Letter (PPL) 970-1, dated June 28, 1995, the Memorandum of Understanding between the Department of Energy, Idaho Operations Office, and the Regional Development Alliance Inc., dated January 2004, Federal Property Management Regulation 41 CFR Part 102-36, and FAR 52.245-5. Personal property determined to have no commercial value may be disposed in the most cost-effective manner.

The contractor shall disposition classified equipment and material in accordance with the requirements of 41 CFR Part 109-45.309-52 and DOE M 471.2-1C “Classified Matter Protection and Control Manual.”

The contractor shall identify, control, and disposition high-risk property in accordance with DOE PPL 970-3, Revision 1, dated February 3, 1998. The contractor shall identify, control, and disposition Automatic Data Processing Equipment in accordance with 41 CFR Part 109-43.307-53.

The contractor shall disposition nuclear-related or proliferation sensitive property in accordance with the requirements of 41 CFR Part 109-45.309-53.

C.1.6.2 Maintenance

The contractor shall develop and implement a graded approach to maintenance commensurate with the facility condition, mission need, and schedule for demolition

in accordance with the contractor's documented ISMS description (as required by DEAR 970.5223-1).

Within 90 days of the contract takeover date, the contractor shall submit to DOE for approval a new minimum safe maintenance approach and site maintenance frequencies that take into account the future mission and demolition schedules for facilities. As part of this approach, the contractor may implement a "run to failure" approach to maintenance for non-essential equipment. The contractor shall coordinate with the Contracting Officer (CO) to tailor DOE maintenance and reporting requirements intended for operational facilities (e.g., failed equipment reporting as required by the latest revisions of DOE Order 5480.19, Conduct of Operations Requirements for DOE Facilities, DOE Order 430.1B, Real Property Asset Management and DOE Order 232.1A Occurrence Reporting and Processing of Operating Information).

C.1.6.3 Physical Demolition

The contractor shall demolish excess facilities identified in this SOW in accordance with best industry practices. The contractor is encouraged to pursue alternative approaches that safely achieve more efficient and effective demolition progress and risk reduction end states in a manner that is compliant with regulatory requirements and agreements. Until facility demolition, the contractor shall maintain a documented ISMS description (as required by DEAR 970.5223-1). Demolition includes disposition, whether in-place or by removal, of all above ground structures, basements, concrete slabs, footings and all utility systems and contaminated soils within the facility's footprint. The facility's footprint is defined as three (3) feet below the base of the slab and three (3) feet outside the facility's perimeter.

The contractor shall coordinate as necessary with the INL contractor or other collocated contractors to ensure that demolition actions do not result in disruption of utility services or program activities of INL facilities. In particular, the contractor shall ensure that the evaluation required by 10 CFR Part 72.48 is performed and documented by the contractor responsible for the NRC-licensed Three Mile Island-2 Independent Spent Fuel Storage Installation (ISFSI) at INTEC *prior to* commencing any demolition work in close proximity to the ISFSI.

The contractor shall disposition demolition materials in accordance with Section C.1.8, Waste Management. Tanks and tank systems supporting current operations are not included in Section C.1.9, Voluntary Consent Order Actions. Therefore, these operational tanks and tank systems shall be dispositioned after current operations cease and as facilities are demolished.

C.1.6.4 High-Risk Facility Disposition

In addition to the physical demolition of many industrial facilities, the contractor shall disposition nuclear reactors at TRA and PBF, SNF processing and wet storage

facilities and basins at INTEC, and other high-risk nuclear facilities at TAN. Individual building end states for these facilities have not yet been defined and shall be proposed by the contractor. End states may be subject to either NEPA review or closure/remediation processes under RCRA, CERCLA, or other applicable requirements, depending on contaminants present and period of active use. If the regulator approves an end state different than the contractor proposed end state, the contractor shall meet the regulatory approved end state and the difference in end states shall not constitute a change under the changes clause nor form the basis for an equitable adjustment to the Target Cost per Section B.212(b). Some will present unique technical challenges due to limited characterization data, unique facility design or construction features, or level and extent of contaminants. If facility disposition or demolition activities are dependent on the outcome of pending NEPA, CERCLA, or other applicable regulatory processes, the contractor is authorized to continue those activities to the extent they are consistent with applicable NEPA, CERCLA, or other regulatory decisions and do not prejudice the selection of disposition alternatives.

For these unique facilities specifically identified in Sections C.2 through C.7, the contractor shall develop and achieve end states that meet the following disposition attributes:

- Reduce the risk and source term to the maximum extent practicable to the workers, public and environment;
- Place the facility in the lowest life-cycle cost end state possible;
- Minimize future work and costs to support ultimate demolition or post closure stewardship activities; and
- Regulatory approval, if required.

Examples of specific end states for each high-risk facility category may include but not be limited to:

- Removal or immobilization of all water, sludge and debris in wet storage pools and basins.
- Evaluation and selection of ultimate disposition options for nuclear reactors and associated containment and support buildings (from a range of alternatives from complete demolition and removal to immobilization in-place).
- Radiological contamination shall be removed or fixed for all facilities in accordance with 10 CFR Part 835 and DOE Order 5400.5.
- Buildings are demolished or immobilized including utility or process system isolation or rerouting, asbestos abatement, waste removal, and final grading if appropriate.

Consideration should be given to conducting these activities as non-time-critical CERCLA removal actions, which may allow some contaminated demolition debris to be disposed of in the on-site ICDF if it meets the ICDF Waste Acceptance Criteria.

C.1.6.5 Demolition End State

The contractor shall restore all demolition sites by back filling with acceptable material and grading to match the contours of the surrounding area. Acceptable materials can be clean off-site soils, uncontaminated crushed concrete, gravel, or uncontaminated soils relocated from other portions of the site, subject to CO authorization for managing undisturbed areas of the site. Demolition end states may be subject to NEPA review, closure/remediation processes under RCRA, CERCLA, or other applicable requirements, depending on contaminants present and time of active use. Although changes to previous agreements are subject to DOE and regulatory approval, the contractor is encouraged to explore and propose to DOE alternative approaches that achieve more efficient and effective risk reduction end states. Building rubble shall be disposed as described in Section C.8.2.2, General Waste Management.

All demolition sites located outside facility fences shall be revegetated with native species to a minimum coverage of 70%. Disturbed land within facility fences of active areas shall be left in a condition not readily susceptible to weed infestation or soil erosion. DOE/ID-12114 *"Guidelines for Revegetation of Disturbed Sites at the Idaho National Engineering Laboratory,"* dated June 1989 and DOE/EA-1083 "*Environmental Assessment and Plan for New Silt/Clay Source Development and Use at the Idaho National Engineering and Environmental Laboratory," dated April 1997*, offer additional guidance on planning, acceptable plant materials, and revegetation techniques.

C.1.7 Operable Units

Early waste disposal practices at INL included injection of liquid waste directly into the Snake River Plain Aquifer (SRPA) and burial of TRU and Mixed Low Level Waste (MLLW). The contamination resulting from these practices resulted in INL's placement on the National Priorities List in 1989. The U.S. Environmental Protection Agency (EPA) Region 10, Idaho Department of Environmental Quality and DOE signed the FFA/CO in 1991 that established the process for implementation of CERCLA remediation. The FFA/CO divided INL into 10 WAGs, one for each active facility area and one covering soils outside facility area fences and the groundwater under the entire site. Each WAG was further divided into Operable Units (OUs). The OUs are groupings of similar contamination, geographically related contaminated areas or inter-related systems/media. Exhibit C.1 lists the OU's with work scope remaining.

The process for investigating potential release sites and obtaining cleanup RODs described in the FFA/CO follows CERCLA guidance and requirements. There are three RODs remaining to be approved for INL: OU 3-14, Tank Farm Soils; OU 7-13/14, RWMC Comprehensive; and OU 10-08, Site-wide Groundwater. Two of these RODs, Tank Farm Soils and RWMC, will likely require EPA Remedy Review Board review and acceptance before ROD approval. The final RODs will be signed by all three agencies.

As required by the FFA/CO, a proposed remediation critical path schedule, with milestone dates, must be submitted as part of the Remedial Design and Remedial Action (RD/RA) Scope of Work that outlines how the ROD will be implemented.

Regulator approval of the Remedial Design/Remedial Action Scope of Work determines the remedial action schedule per the FFA/CO. The RD/RA Work Plans are then developed and implemented. Regulatory agencies inspect all remediation systems prior to operation. The approval of completed remediation includes an inspection at the time of completion and the preparation of a Remedial Action Report for regulator acceptance. Completed and on-going remedial actions are subject to CERCLA five-year reviews and reporting on maintenance of Institutional Controls. The contractor shall complete all five-year reviews that occur during the contract term in the geographic areas assigned to the ICP contractor, including INTEC, TRA, TAN, PBF, RWMC and Miscellaneous Sites (including the Central Facilities Area). The contractor shall complete any follow-on remedial actions resulting from five-year reviews through the contract period.

All decision documents and documents referenced in a decision document are placed in the Administrative Record prior to ROD signature and in the connected Information Repository, post-ROD. This database is available to the public at http://ar.inel.gov. The contractor shall maintain the CERCLA Administrative Record and Information Repository including the documentation for WAGs 8 and 9.

The contractor shall maintain all records required to determine the source, remediation, and current status of all site contamination including areas not under their control, such as the Naval Reactors Facility (NRF) and Argonne National Laboratory-West (ANL-W).

Within this SOW, the term “disposition” requires the OUs to be investigated, remediated (as necessary), closed and documented in accordance with the FFA/CO and existing RODs. The FFA/CO allows the contractor to propose alternative methods for achieving ROD requirements. Although changes to previous agreements are subject to regulatory approval, the contractor is encouraged to explore and propose to DOE alternative approaches that more efficiently achieve effective risk reduction end states.

C.1.8 Waste Management

SECTION C.1.8 IN ITS ENTIRETY WAS COVERED DURING THE ORIGINAL PERIOD OF PERFORMANCE THROUGH SEPTEMBER 30, 2012. REFER TO SECTION C.8 ADDITIONAL WORKSCOPE FOR THE EXTENSION WORKSCOPE.

For all waste streams generated by EM activities performed under this contract, the contractor shall provide waste management services, with the exception of the mandatory landfill services provided by the INL contractor as specified in Section C.1.10. The contractor shall institute controls to confirm traceability of waste packages transferred or

disposed, either on-site or off-site. Documentation shall include, as a minimum, the origin of the waste, content of the waste package, and results of characterization and sampling. The contractor shall implement a waste minimization and pollution prevention program consistent with applicable Executive Orders and DOE Directives. To the maximum extent practicable, the contractor shall consolidate waste materials in as few locations as possible to effectively reduce the EM footprint liability on-site.

The contractor shall use all means practicable to minimize or eliminate any newly generated wastes. These wastes, including secondary wastes, shall not be generated unless it is necessary for the completion of the SOW. Newly generated wastes shall have a clear disposition path before they are generated. However, under certain conditions, the contractor may generate radioactive waste with no identified path to disposal, provided DOE approval per Order 435.1 has been obtained in advance. The contractor shall consider and specify cleanup and demolition methods, alter existing plans, or propose alternative technical approaches to eliminate or minimize newly generated waste. In addition the contractor shall pursue alternate approaches to reduce the cost of waste disposition and, for those wastes that currently have no established pathway for disposal, the contractor shall aggressively pursue innovative approaches to treat or otherwise dispose of this waste.

C.1.8.1 Industrial Waste

The contractor shall properly dispose of solid waste generated as a result of cleanup activities. The Central Facilities Area (CFA) landfill is available from the INL contractor as a mandatory service as described in Section C.1.10.

A non-municipal solid waste landfill located at TAN is available for TAN facility demolition waste only. The contractor shall operate the landfill at TAN in compliance with the state-approved operating plan (INEEL/EXT-03-00714 dated July 2003). Upon completion of the demolition and removal scope at TAN, the contractor shall either negotiate a transfer to the INL contractor or close the landfill. Alternatively, the contractor is free to propose alternative dispositions for this landfill, subject to approval by the CO, provided that all applicable regulatory requirements are satisfied and EM liabilities beyond the contract period are eliminated.

C.1.8.2 Hazardous Waste

The contractor shall prepare and package EM owned and generated hazardous waste for off-site shipment to an appropriate treatment or disposal facility in accordance with acceptance criteria specified by the receiver site. The contractor may provide this treatment and disposal service at a negotiated price for hazardous wastes generated by other on site non-EM INL contractors per Section C.11. Costs for containers, characterization, packaging, loading, transportation and disposal of hazardous waste will be borne by the generating contractor. Costs associated with EM-generated hazardous waste are included within the Target Cost of the contract. The contractor shall disposition for recycle, reuse or disposal a significant quantity of lead in various forms (estimated at about 3,500 tons) that is currently in use as

shielding or is stored on site. It is estimated that about 25% of the lead is radioactively contaminated and about 50% of the lead is radiologically clean; but the condition of the remaining 25% is unknown.

C.1.8.3 Low Level Waste (LLW) and Mixed Low Level Waste (MLLW)

The contractor shall dispose of contact-handled (CH) and RH low level radioactive waste (LLW) generated by on-site EM generators to the SDA in RWMC. The contractor shall also dispose of CH and RH LLW received from on-site non-EM generators including, but not limited to, the ISFSI, the NRF, the Specific Manufacturing Capability, PBF, CFA, the Idaho Research Center and ANL-W. Costs for containers, characterization, packaging, loading and transportation of CH and RH LLW to the SDA will be borne by the generating contractor. Costs for disposal at the SDA of EM and non-EM on-site generated CH and RH LLW shall be borne by the contractor as part of Target Cost.

Although the EM *Performance Management Plan for Accelerating Cleanup of the Idaho National Engineering and Environmental Laboratory* indicates that the SDA will remain open only until 2009, the contractor may keep the active disposal pit open until it reaches full capacity. An estimated volume of 44,000 m^3 remains available in the active disposal pit. If, during the contract term, the active disposal pit capacity is reached or the pit must be closed for any reason, such as implementation of the ROD for WAG 7, the contractor shall close the active disposal pit and dispose of on-site EM-generated CH and RH LLW at an appropriate disposal facility in accordance with waste acceptance criteria specified by the receiver site. The contractor may provide this service at a negotiated price for CH and RH LLW generated by on-site non-EM generators per Section C.11. Costs for containers, characterization, packaging, loading, transportation, and disposal of CH and RH LLW at an off-site disposal facility shall be borne by the generating contractor.

Historical and projected LLW generation rates at the Idaho National Engineering and Environmental Laboratory (INEEL), based on assessments performed in August 2003 (EDF-1591, Rev.3), are provided in Exhibit C.13, *INEEL Low-level Waste Generation Rates.*

The contractor shall dispose of EM-owned MLLW, that is stored on-site as of the contract takeover date and/or generated by EM activities performed under this contract, at either a commercial disposal facility or a Government disposal facility in accordance with waste acceptance criteria specified by the receiver site. The contractor may provide this service at a negotiated price for wastes generated by on-site non-EM generators per Section C.11. Disposal costs shall be borne by the generating contractor.

C.1.8.4 Transuranic Waste

The contractor shall retrieve, characterize, treat (if necessary), certify, and package EM-owned RH TRU waste and ICP contractor-generated TRU waste for shipment to and disposal at the WIPP. Alternatively, the contractor may, if authorized by the DOE Carlsbad Field Office, procure the services of the Central Characterization Project for characterization, certification and shipment of TRU waste to WIPP. The contractor shall coordinate any transport inspections required by the U.S. Department of Transportation (DOT) and the state of Idaho prior to the TRUPACTs or casks leaving the site.

Costs for TRUPACTs, casks, trailers, tractors, drivers and disposal at WIPP are borne by the DOE Carlsbad Field Office. All other costs, including consumables associated with TRUPACTs and cask shipments to WIPP and costs for utilization of the Central Characterization Project, are included in Target Cost.

If contractor remedial actions encounter TRU waste generated prior to 1970, the contractor may manage it as "newly generated waste" in accordance with the applicable requirements of the Waste Analysis Plan of the WIPP Hazardous Waste Facility Permit, *NM 4890139088-TSDF* available at **http://www.wipp.carlsbad.nm.us/library/rcrapermit/rcrapermit.htm.**

The contractor shall obtain and/or maintain certification authority from WIPP or obtain waste characterization, certification and shipping services from an outside entity, such as the Central Characterization Project of the DOE Carlsbad Field Office. The contractor shall accommodate audits performed by WIPP, the DOE Carlsbad Field Office, the New Mexico Environment Department and the EPA.

DOE anticipates that the WIPP waste acceptance criteria for RH-TRU will be approved by December 2005.

The treatment and disposition of SBW is described in Section C.8.3.5.2.

C.1.10 Utility/Infrastructure Services

The contractor shall ensure appropriate utility services are provided for all EM facilities commensurate with the mission need, condition of the facility and the planned schedule for demolition. Utility systems for the EM-owned facilities are summarized in Exhibit C.8-7 ICP Utilities.

Utility services must provide adequate building protection including, but not limited to, fire protection, alarm systems, nuclear safety, and Life Safety Code requirements, specified in National Fire Protection Association 101, prior to demolition. The contractor shall notify the CO in writing 30 days before terminating any utility service to an occupied facility. If the CO determines that the 30-day notification does not allow sufficient time to relocate all occupants, the CO will specify a longer time period in writing to the contractor. In no case shall that time period exceed six months from the date of the initial notification. Relevant

infrastructure interfaces are identified in the descriptions of each geographic area in Section C.8.

The Site Services (Exhibit C.8-8) will be provided by the INL . The ICP contractor shall have a formal interface agreement in place with the INL contractor describing how the services list in Exhibit C.8-8 will be managed.

Until such time as they are no longer needed for the EM mission, the contractor shall maintain EM facilities, systems or structures located outside the INTEC fence that are connected to or considered to be part of INTEC operations. Examples include, but are not limited to, the new Percolation Ponds, Potable Water System and the ICDF. The contractor shall maintain perimeter roads that are integral to EM activities at INTEC, RWMC and TAN.

If the existing railroad system within an EM facility area is needed, the contractor shall maintain it in accordance with the same consensus standards specified by the INL contractor for rail lines outside EM-owned facility areas. Any site railroad system upgrades, whether inside or outside EM-owned facility areas, that are needed solely to support the EM mission are the responsibility of the ICP contractor.

For INTEC, RWMC and the EM-controlled portions of TAN (excluding the Specific Manufacturing Capability facilities), the contractor is responsible for general site maintenance to include, but not limited to, grass mowing, weed control, housekeeping, pest control and snow removal as appropriate. The contractor is also responsible for custodial services including, but not limited to, sanitation services, trash removal, recycling, cleaning of restrooms and drinking fountains, standard sanitation supplies in restrooms, and floor maintenance.

C.2 IDAHO NUCLEAR TECHNOLOGY AND ENGINEERING CENTER (INTEC)

SECTION C.2 IN ITS ENTIRETY WAS COVERED DURING THE ORIGINAL PERIOD OF PERFORMANCE THROUGH SEPTEMBER 30, 2012. REFER TO SECTION C.8 ADDITIONAL WORKSCOPE FOR THE EXTENSION WORKSCOPE.

The Idaho Nuclear Technology and Engineering Center (INTEC) (formerly the Idaho Chemical Processing Plant [ICPP]) is situated on 210 acres within a perimeter fence and approximately 55 acres located outside the fence. INTEC was built in the 1950s to reprocess SNF to recover uranium and krypton gas. INTEC consists of 290 facilities (approximately 1.2 million square feet) and two active CERCLA OUs.

The end state for INTEC under this contract is the following:

- Demolish or disposition all excess facilities
- Design, construct, and operate a treatment facility for liquid sodium bearing waste (SBW)

- Provide interim storage of steam reformed product generated during the term of the contract
- Empty and disposition all Tank Farm Facility waste tanks *
- Place all EM SNF in safe dry storage
- Deactivate EM SNF wet storage basins (CPP-603)
- Dispose or disposition all excess nuclear material
- Complete all VCO tank system actions
- Complete all required OU 3-13 remediation, including CERCLA Tank Farm Interim Action
- Maintain and operate the ICDF

* *In light of the legal uncertainty, all work under paragraph C.2.4.3 and the stabilization and disposal of residual solids and the in-place closure of the tank farm per Section C.2.8.1 shall require specific authorization by DOE.*

After contract completion the following cleanup work will remain:

- Continued interim storage of treated SBW, and shipment to a repository upon identification and regulatory acceptance
- Cleaning and disposition Tank Farm Facility waste tanks and associated vaults and ancillary equipment
- Retrieval, packaging and off-site shipment of 4,440m^3 of existing high level waste (HLW) calcine
- Completion of OU 3-14 remediation and documentation
- Demolition of remaining INTEC buildings and structures
- Continued operation and closure of ICDF
- Packaging and transport of SNF to repository

C.2.1 Facilities

C.2.1.1 Facility Demolition

The contractor shall demolish and remove the INTEC excess facilities listed in Exhibit C.5a. The contractor shall demolish and remove all other minor structures such as trailers, sheds and canopies, and any additional facilities not required to support ongoing missions at INTEC. Exhibit C.5a provides descriptions of hazards, contamination levels, reference documents, and other facility design characteristics that may challenge conventional deactivation or demolition practices.

The contractor shall not commence demolishing the Coal Fired Steam Generation Facilities (CFSGF) before February 1, 2007. The CFSGF is comprised of: CPP-687, CPP-688, CPP-689, CPP-690, CPP-696, CPP-755, CPP-775, CPP-776, CPP-778, CPP-787, CPP-788, CPP-789, CPP-792, CPP-793, CPP-794, CPP-1755, and CPP-1780. If DOE decides to not demolish the CFSGF, the ICP Target Cost and Target Fee will be decreased for the CFSGF demolition and the correlated baseline work

scope will be removed from the contract. To the extent that this action makes funds available, DOE will add work scope to the ICP contract under the terms of Section C.8, Additional Workscope.

C.2.1.2 High-Risk Facility Disposition

The contractor shall disposition the following four high-risk facilities listed in Exhibit C.5b:

- CPP-601, Fuel Process Building
- CPP-640, Head End Process Plant
- CPP-603 Wet Basins (three basins)
- CPP-648, Sludge Tank Control House

The contractor shall achieve specific end states as described in Section C.1.6.4 for each of the above high-risk facilities. Exhibit C.5b provides descriptions of hazards, contamination levels, reference documents, and other facility design characteristics that may challenge conventional deactivation or demolition practices.

The CPP-601 complex (including CPP-640) is a heavily contaminated nuclear fuel reprocessing plant with extensive contaminated piping runs, dead legs with expected fissile material holdup, and high radiation hot cells with several deep waste tanks and bulk chemical process tanks still in use. By contract takeover, CPP-640 will have been deactivated with process and sub-process systems flushed, isolated and blanked and hazardous materials (glycol, oils, asbestos, high radiation) removed. This deactivation will have been performed for the handling materials area, cell area, sample area and operating area from the ground floor level and above.

As a minimum, disposition of CPP-603 wet basins and CPP-648 sludge tank storage basin shall include removal of all water and immobilization/removal of all sludge and debris. The CPP-603 basin sludge is hazardous and may require treatment before disposal. Safety documents will require revision for sludge and debris removal.

C.2.1.3 Continuing Facility Operations

The contractor shall operate and maintain INTEC facilities listed in Exhibit C.5c, required for ongoing missions in accordance with the contractor's documented ISMS description (as required by DEAR 970.5223-1).

Consideration should be given to evaluation and utilization of CPP-691 Fuel Processing Restoration (FPR) Building to support SNF repackaging or temporary storage, SBW treatment and repackaging, or HLW calcine packaging if economic analysis supports such reuse.

The New Waste Calcine Facility, CPP-659, is maintained on the operational list of facilities as one of the viable and NEPA analyzed alternatives for SBW disposition.

However, as part of the Consent Order, a RCRA closure plan was approved by the state of Idaho that required the calciner system to be flushed and utilities isolated in preparation for final closure. While Maximum Achievable Control Technology (MACT) upgrades and regulatory permitting would be required to make the calciner system operational, isolation of utilities is being implemented to facilitate re-connection if the calciner system were to be used for future waste treatment activities.

The Flourinel and Storage Facility (CPP-666) and its stack (CPP-767) are planned for transfer to the Office of Civilian Radioactive Waste Management during the contract period. If this occurs, the ICP Target Cost and Target Fee will be decreased for the ICP baseline work scope removed through the duration of the contract, per Section B.4(e).

C.2.2 Utility Systems

The contractor shall operate and maintain utility systems for the INTEC area as described in Exhibit C.3. The INL contractor will provide electrical power to the INTEC substation described in Exhibit C.3. The contractor shall maintain the power distribution system within INTEC and reimburse the INL contractor for power consumption as described in Exhibit C.4-1. The contractor shall operate and provide adequate maintenance to all operating utility systems until they are deactivated. The contractor shall implement a graded approach to the continuation of services and maintenance on all utility systems.

C.2.3 CERCLA Remediation

The WAG 3 encompasses the INTEC area and includes OUs 3-13 and 3-14 containing approximately 100 release sites. The contractor shall disposition OU 3-13 in accordance with the approved ROD (AR DOE/ID-10660, dated October 1999) and associated Remedial Designs and Remedial Action Work Plans listed in Exhibit C.1.

For OU 3-14 the contractor shall implement the RI/FS Work Plan, develop the Remedial Investigation/Feasibility Study (RI/FS), Proposed Plan, and ROD by December 31, 2006. The enforceable date for the OU 3-14 ROD is May 31, 2010. The Agreement to Resolve Disputes applies to both OU 3-13 and OU 3-14 and mandates evaluating the feasibility of accelerating the OU 3-14 ROD ahead of the current enforceable date. If it is not possible to submit a draft OU 3-14 ROD by December 31, 2006, the contractor shall install an infiltration barrier over the entire Tank Farm as the tanks are closed on a schedule to be negotiated with the agencies. The contractor shall implement the approved ROD in accordance with the RD/RA work plans approved by the agencies.

The currently established enforceable regulatory milestones for OU 3-13 and OU 3-14 are listed in Exhibit C.1. The Administrative Record documents, including Work Plans for INTEC OUs may be found at http://ar.inel.gov.

The characterization of contamination within the Tank Farm must be accomplished in coordination with the closure of the high level waste tanks. The FFA/CO allows the

contractor to propose alternative methods for achieving ROD requirements. Any alternative methods are subject to authorization by DOE and approval by the regulators.

C.2.3.1 OU 3-13

The OU 3-13 ROD combined release sites into seven groups. Remediation is already underway in all seven OU 3-13 Groups. The contractor shall complete all work required to meet the requirements established in the ROD, Remedial Design/Remedial Action Scope of Work, RD/RA Work Plan and supporting documents and meet all established regulatory milestones.

The contractor shall complete the following work:

Group 1, Tank Farm Soils Interim Action – The contractor shall implement the actions covered under the ARD, dated February 2003**.** The OU 3-13 ROD, Group 1 is an interim action to limit transport of known Tank Farm soils contamination to the SRPA. Work to improve tank farm drainage and place an infiltration barrier over the entire Tank Farm was not completed by the enforceable milestone. The agencies used the FFA/CO dispute process to develop the current path forward, described in the Tank Farm Soils dispute resolution. Required improvements in Tank Farm drainage have been made. An Explanation of Significant Differences has been approved that moved the injection well and "no further action" sites into the existing OU 3-13 ROD. An infiltration barrier will be placed over the areas of greatest known soil contamination in FY 2004. The contractor shall implement the remaining elements of the resolution that involve pursuing acceleration of tank closure and acceleration of the OU 3-14 ROD. If it is not possible to submit a draft OU 3-14 ROD by December 31, 2006, the contractor shall install an infiltration barrier over the entire Tank Farm as the tanks are closed on a schedule to be negotiated with the agencies.

Group 2, Soils Under Buildings and Structures – The contractor shall maintain Institutional Controls until facilities are demolished. As facilities are demolished the contractor shall assess conditions, develop and implement remedial actions to limit exposure to 1.0 E-04 risk level per the OU 3-13 ROD from radiation, and limit migration of contaminants to the SRPA.

Group 3, Other Surface Soils – The contractor shall remove soils and debris above 1.0 E-04 risk level per the OU 3-13 ROD, dispose of contaminated soils and debris in the ICDF, or other appropriate disposal facility, and replace excavated soils with clean backfill and regrade. By contract takeover, the old percolation pond soils will have been removed and disposed in ICDF. The contractor shall assume management, oversight, operation, and any required future expansion of the ICDF. The ICDF is an engineered CERCLA landfill located south of the INTEC fence. The ICDF is currently operated through a subcontract that includes construction of the second landfill cell during FY04 and FY05. The ICDF is operated under the OU 3-13 ROD, but will accept any waste generated by INL CERCLA remediation that meets the

regulator approved waste acceptance criteria (DOE/ID-10865, as revised). Waste generated outside the INTEC area must be treated to meet RCRA Land Disposal Restrictions, when applicable. The Staging, Storage, Sizing and Treatment Facility is a subsystem of the ICDF that is designed to handle anticipated treatment needs. CERCLA waste not meeting ICDF disposal criteria may be temporarily stored at the ICDF pending disposal. The ICDF Evaporation Pond (not part of the INTEC liquid waste system) is a subsystem of the ICDF that may accept aqueous waste from ICDF operations, WAG 3 groundwater and monitoring waste, CERCLA decontamination aqueous waste and other CERCLA aqueous waste, if defined in a CERCLA primary document as acceptable (DOE/ID-10866, as revised). The ROD requires that disposition of waste in the ICDF be cost effective and that comparison with commercial waste disposal sites be continually reviewed.

Group 4, Perched Water – The contractor shall maintain Institutional Controls and continue the groundwater and perched water monitoring and assessment program described in the Monitoring System and Installation Plans (DOE/ID-10774, DOE/ID-10782 and DOE/ID-10783) for Groups 4 and 5. The contractor shall implement the selected approach (as specified in the ROD) to remediate the remaining perched water. There are 115 wells in the INTEC monitoring network. Additional wells may be required based on negotiations with the regulators.

Group 5, Snake River Plain Aquifer (outside of the INTEC fence) – The contractor shall maintain Institutional Controls and continue the groundwater (outside the fence) and perched water monitoring and assessment program described in the Monitoring System and Installation Plans (DOE/ID-10774, DOE/ID-10782 and DOE/ID10783) for Groups 4 and 5. There are 115 wells in the INTEC monitoring network. Additional wells may be required based on negotiations with the regulators. Further, the contractor shall comply with the Volume 21 Waste Calciner Facility Post-Closure RCRA Permit, available on the Shared Library at www.id.doe.gov/doeid/rfpsharedlibrary/refdoc.htm, which requires evaluation of existing well data and implementation of a work plan for installation of new monitoring well(s) and sampling and analysis of well water for the existing well network.

Group 6, Buried Gas Cylinders – (DOE/ID-10838) – This project will be complete by contract takeover.

Group 7, SFE-20 Hot Waste Tank System – The contractor shall remediate the SFE-20 tank per the existing RD/RA Work Plan and approved HWMA/RCRA closure plan (AR DOE-ID-11048).

C.2.3.2 OU 3-14

OU 3-14 includes the final remedy for the tank farm soils and the SRPA inside of the INTEC fence line. The three soil sites and the injection well have been categorized as

"No Further Action" sites and have been moved to OU 3-13 by an approved Explanation of Significant Differences to the OU 3-13 ROD.

The contractor shall implement RI/FS OU 3-14 Work Plan. By contract takeover, the vadose zone model will have been developed and the initial tank farm soil samples will have been collected and analyzed. In FY 2005, the contractor shall vertical-profile sample USGS wells 44, 46, and 47. If concentrations of I-129 are less than the action level of five pico-curies per liter, the contractor shall continue monitoring only. If the concentrations are greater than five pico-curies per liter, the contractor shall perform additional monitoring and modeling to estimate I-129 concentrations in groundwater expected in 2095.

The contractor shall complete the OU 3-14 RI/FS, Proposed Plan, ROD and supporting documents; manage the public involvement during the Proposed Plan public comment period; provide requested information to EPA to support review by the EPA Remedy Review Board; and implement the ROD.

C.2.4 Waste Management

In addition to waste management services and requirements discussed in Section C.1.8, the contractor shall disposition the following additional waste streams located at INTEC:

C.2.4.1 Newly Generated Liquid Waste*

The contractor shall treat and dispose of all INTEC Newly Generated Liquid Waste (NGLW). This NGLW is generally very diluted and after processing through existing evaporation systems, results in concentrated NGLW volumes of less than 10,000 gallons annually. The contractor shall not add any waste that contains a RCRA listed waste code that is not already present in the existing tank farm waste to the tank farm. No liquid waste from outside INTEC shall be accepted for treatment in the INTEC liquid waste system.

System design currently results in the NGLW being transferred to the Tank Farm Facility for storage as part of the SBW inventory (Section C.2.4.3). To avoid further increases in the SBW inventory and to allow flexibility in NGLW treatment and disposal decisions, the contractor shall prohibit introduction of NGLW into the Tank Farm Facility after September 30, 2005. At that time, any INTEC NGLW may be collected for interim storage in tanks WM-100, -101, and -102 that provide a total of approximately 52,000 gallons of storage capacity. Additionally, for storage of NGLW in these tanks to be environmentally compliant, the contractor shall complete modifications to portions of the Process Equipment Waste (PEW) system as described in Volume 14 RCRA (draft) Permit available at http://www.id.doe.gov/doeid/rfpsharedlibrary/refdoc.htm.

* *Any newly generated liquid waste added to the tank farm for storage as part of the SBW inventory shall be treated per Section C.2.4.3.*

C.2.4.2 Mixed Low Level Waste

The contractor shall repackage, treat if necessary, and dispose of the backlog of MLLW and mixed TRU waste identified in the Site Treatment Plan. Estimated quantities are:

- Approximately 67 m^3 HEPA filter leach backlog
- Approximately 160 m^3 of drums or boxes of legacy MLLW (backlog) stored in CPP-1617
- Approximately 150m^3 of existing inventory of newly generated MLLW (including VCO and decontamination and demolition waste) located at CPP-1617

The contractor shall disposition all MLLW and TRU mixed waste generated from INTEC operations and environmental cleanup activities.

C.2.4.3 Sodium Bearing Waste*

There are approximately 1,000,000 gallons of SBW in underground stainless steel tanks as described in Exhibit C.6 and summarized in Table C.1 below. A complete description of the SBW characteristics can be found in "*Feed Composition for the Sodium Bearing Waste Treatment Process*", INEEL/EXT-2000-01378, Revision 3 (September, 2003). Engineering Design files and reports for SBW treatment are available at www.id.doe.gov/doeid/rfpsharedlibrary/refdoc.htm.

The contractor shall conduct all necessary activities and provide all associated deliverables to enable DOE to issue a ROD for the *Idaho High-Level Waste & Facilities Disposition Final Environmental Impact Statement, September 2002* (HLW EIS) on SBW Treatment that would allow implementation of the preferred alternative of treating the SBW.

The contractor shall design and construct its SBW treatment and packaging facility to enable the conversion to treat the waste for alternate waste disposal at an alternate geologic repository for SNF/HLW, if needed. Additional pilot plant testing shall be performed to evaluate waste form performance relative to the high-level waste acceptance criteria of the geologic repository for SNF/HLW. The SBW facility will also be constructed so it could be converted for calcine treatment if needed. This includes improvements in process cell structural and seismic protection to meeting safety significant, performance category 3 (PC-3) design criteria, as required. The Total Project Cost for the project is $570.9M.

The contractor shall obtain approval to commence operations (CD-4) no later than July 31, 2011. The treatment and packaging of liquid SBW will be completed by September 30, 2012 to enable the DOE to meet its regulatory commitments to remove all liquid waste from the underground tanks and treat the SBW by December

31, 2012. To address the current uncertainties in obtaining regulatory approvals for the final disposal of the treated waste, the facility shall be designed and constructed to allow interim storage of all treated material by September 30, 2012, with the necessary equipment and commodities (i.e., product vessels and storage modules) to allow continued interim storage during the follow-on contract transition period. The contractor shall design and construct its SBW packaging facility with the capability for future packaging and shipping of the existing HLW calcine to the geologic repository for SNF/HLW per Section C.2.8.2. *Additionally, in light of the legal uncertainty about classification of this waste, the contractor shall provide an alternative technical approach to prepare this waste for disposal as HLW in the geologic repository for spent fuel/HLW, which DOE may implement instead if it concludes that it is prevented from classifying this waste as other than HLW.*

During SBW treatment operations, the contractor shall avoid or minimize generation of secondary wastes and/or ensure that any secondary waste has a disposition path and is disposed of, considering overall risk reduction. Residual solids are those that remain in the tanks after tank cleaning, and meet the RCRA closure plans and performance assessments for final tank farm closure. The contractor shall stabilize the residual solids as part of the final tank farm closure process described in Section C.2.8.1.

No new liquid waste will be added to tanks WM 187 through 190, except flushing liquid and grout during the cleaning and closure process.

** In light of the legal uncertainty, all work under paragraph C.2.4.3 and the stabilization and disposal of residual solids and the in-place closure of the tank farm per Section C.2.8.1 shall require specific authorization by DOE.*

Table C.1 Summary of SBW Stored in the INTEC Tank Farm

Tank Number	Vault Type	Tank Capacity (Gallons)	Cooling Coils Installed?	Estimated SBW Inventory @ Contract Takeover	Forecasted Tank Status @ Contract Takeover
WM-180	Monolithic Octagon	318,000	Yes	~5,000 gallons of flush water and residual solids[1]	Emptied/Cleaned[4]
WM-181	Monolithic Octagon	318,000	No	~5,000 gallons of flush water and residual solids[1]	Emptied/Cleaned[4]
WM-182	Pillar and Panel	300,000	Yes	~5,000 gallons of flush water and residual solids[1]	Emptied/Cleaned[4]
WM-183	Pillar and Panel	300,000	Yes	~5,000 gallons of flush water and residual solids[1]	Emptied
WM-184	Pillar and Panel	300,000	No	~5,000 gallons of flush water and residual solids[1]	Emptied/Cleaned[4]
WM-185	Pillar and Panel	300,000	Yes	~5,000 gallons of flush water and residual solids[1]	Emptied/Cleaned[4]
WM-186	Pillar and Panel	300,000	No	~5,000 gallons of flush water and residual solids[1]	Emptied/Cleaned[4]
WM-187	Square	300,000	Yes	~280,000 gallons[2]	~280,000 gallons, contains solids from other tank flushes[2]
WM-188	Square	300,000	Yes	~280,000 gallons	~280,000 gallons
WM-189	Square	300,000	Yes	~280,000 gallons	~280,000 gallons
WM-190	Square	300,000	Yes	Empty[3]	Empty

Tank Number	Vault Type	Tank Capacity (Gallons)	Cooling Coils Installed?	Estimated SBW Inventory @ Contract Takeover	Forecasted Tank Status @ Contract Takeover
WM-103	N/A	30,750	Yes	< 500 gallons of flush water and residual solids[1]	Emptied/Cleaned[4]
WM-104	N/A	30,750	Yes	< 500 gallons of flush water and residual solids[1]	Emptied/Cleaned[4]
WM-105	N/A	30,750	Yes	< 500 gallons of flush water and residual solids[1]	Emptied/Cleaned[4]
WM-106	N/A	30,750	Yes	< 500 gallons of flush water and residual solids[1]	Emptied/Cleaned[4]

[1] These tanks will have been cleaned, but will still contain a remaining heel of flush water and residual solids that were sampled to provide the final proof of cleanliness.

[2] WM-187 is used to receive material flushed from other operating tanks during the cleaning phase.

[3] WM-190 has been maintained as an empty, spare tank. A visual examination is planned to verify cleanliness - a water flush of the tank will likely not be required.

[4] See Exhibit C.6 for explanation of flushing and cleaning.

C.2.5 Voluntary Consent Order Actions

The contractor shall disposition 41 tank systems consisting of tanks and associated ancillary piping and equipment, governed by and in accordance with the VCO as identified in Exhibit C.2.

C.2.6 Nuclear Materials

The contractor shall dispose or disposition all excess nuclear materials listed in the Table C.2, to an approved DOE or commercial disposal or storage facility by September 30, 2009. The contractor shall package and ship the material in accordance with transportation regulations and receiver site requirements, including developing the necessary shipper/receiver agreements. Table C.2 includes the current baseline plan for shipping material, but the contractor is not limited to this transportation plan. The contractor should not assume that the baseline plan in Table C.2 complies with DOT or Nuclear Regulatory Commission requirements.

As an interim disposition step, the contractor shall empty CPP-651 of all SNM inventory by

September 30, 2005. The ICP contractor shall coordinate with the INL contractor to provide existing on-site temporary storage (TRA and/or ANL-W) for these materials until ultimate disposition. The INL contractor is responsible for any changes to INL facilities safety documentation, storage configuration modifications, storage, and material control and accountability activities. SNM transfer, handling and final disposition activities are within the ICP contract Target Cost.

Table C.2 Inventory of INTEC Nuclear Materials

COMPLETE

Item No.	SNM Name	Description	Amount (kg U)	Proposed Shipping Containers	Estimated No. of Shipping Containers	Proposed Shipping Transport	Estimated No. of Shipments	Proposed Receiver Site
[redacted]								

Note: DOE is working to eliminate shipment of SNM in DOT specification containers, such as the 6M in the Transportation Safeguards System (TSS). Currently only uranium shipments are allowed. The current National Nuclear Security Administration policy is that no shipments of SNM in the 6M and other specification containers will be allowed in the TSS after December 31, 2005. The new ES-3100 container, a 6M replacement that will be initially certified for HEU is expected to be available in late CY 2005. Shipment of SNM via commercial carrier will be allowed in DOT-authorized 6M drums until October 1, 2008.

C.2.7 Spent Nuclear Fuel (SNF)

There are 165.5 metric tons heavy metal (MTHM) of EM-owned SNF located at INTEC facilities (at the end of FY05) as described in Exhibit C.7. Additionally, there are 15.3 MTHM of Experimental Breeder Reactor II SNF and Navy SNF in CPP-666, comprised of 7,857 fuel units. The contractor shall maintain all SNF inventory and SNF facilities (CPP-603, CPP-666, CPP-749, CPP-2707, and rail cars on INTEC railroad siding), in safe configuration through the contract period. This includes completion of: (1) 2707 cask monitoring system installation; and (2) 603-B ventilation upgrades and remove the old ventilation duct and filters.

C.2.7.1 INTEC Fuel Receipts and Transfers

The contractor shall receive and safely store approximately 8 shipments of Advanced Test Reactor (ATR) SNF (with approximately eight elements per shipment) in the remainder of FY 2005.

The contractor shall receive and safely store up to 31 shipments per year of ATR SNF (with approximately eight elements per shipment) for each fiscal year from FY 2006 through FY 2010, for a total of up to 1,230 elements.

The contractor shall receive and safely store 5 kg of non-ATR SNF from TRA, as described in Table C.7 in Section C.5.6.

The contractor shall coordinate with the INL contractor to evaluate the aforementioned SNF for dry storage, or place in wet storage in CPP-666 should decay-heat cooling requirements mandate.

The contractor shall transfer all EM-owned SNF (approximately 6.7 MTHM, as identified in Exhibit C.7) from CPP-666 wet-storage to safe dry-storage by September 30, 2009. In scheduling these transfers, the EM-owned ATR SNF (comprised of ATR SNF inventory in CPP-666 at the end of FY 2005) shall be the last SNF to be transferred from CPP-666 to dry-storage.

Current projections indicate that up to an additional 50 storage ports in CPP-603 may be needed over the contract term to accommodate dry SNF receipts. The contractor shall evaluate dry SNF storage facilities and capacity and shall schedule and perform

SNF receipts and transfers to appropriately manage dry SNF facility capacity to accommodate current and projected dry SNF inventory.

C.2.7.2 Contract Interface with other INTEC program sponsors

In addition to EM, there are several other DOE program offices sponsoring or potentially sponsoring SNF activities at INTEC, including Office of Civilian Radioactive Waste Management (RW), Office of Nuclear Energy, Science and Technology (NE), Naval Reactors (NR) and National Nuclear Security Administration (NNSA). The contractor shall perform work for these various sponsors as described in Section B.5 and Section C.11. Any such tasks/activities will be separately requested, negotiated, tasked, and funded (by the program sponsor) outside of the ICP Target Cost and Target Fee. Correlated with Section 2.7.1 above, Table C.3 outlines currently known SNF work scope and responsibilities of other INTEC program sponsors and is provided for information only:

Table C.3 SNF Roles and Responsibilities

Activity	Sponsor
CPP-666	
Transfers of Navy SNF to NRF. This activity will likely not commence until FY 2007 and continue through the contract period.	NR
Subsequent transfers out of CPP-666 of ATR SNF received after FY 2005.	NE
TMI (CPP-1774) / Ft. St. Vrain (Colorado) SNF facilities	
All work scope and costs, including NRC licensing, operations and maintenance, and interim storage of SNF at these facilities.	RW
Foreign Research Reactor & Domestic Research Reactor SNF	
All work scope and costs for FRR/DRR fuel receipts, including shipping costs for “other than high income” nations. About 4-5 casks per year are planned from FY 2005 – FY 2012	RW/NE/NNSA

C.2.7.3 INTEC SNF Facilities Transition

Upon completion of transfers of EM owned SNF from CPP-666 (wet storage) to CPP-603 (dry storage), DOE may transition all responsibility for SNF and SNF facilities to the Office of Civilian Radioactive Waste Management. At that time, all SNF responsibilities, both the EM work scope and work scope sponsored by other DOE programs will be removed from the ICP contract and transferred to a separate contract. Consistent with this action, the ICP Target Cost and Target Fee will be decreased for the ICP SNF baseline work scope removed through the duration of the contract, per Section B.4(e).

In preparation for the shift of SNF responsibility to a separate contract, the ICP contractor shall complete fencing-off the SNF facilities at INTEC by September 30, 2009, in conformance with security requirements for SNF storage facilities. The design and location of this security barrier and entrances must be approved by the CO. The area will generally encompass the southwest portion of INTEC to include CPP-666, CPP-1774, CPP-2707, CPP-749, and CPP-603. It is expected that some EM ICP facilities within this SNF area will remain active (either cleanup or operational).

C.2.8 Tank Farms

C.2.8.1 Tank Farm Facility

For tanks WM-103 through WM-106 and WM-180 through WM-186, the contractor shall stabilize the residual solids and dispose of them as waste incidental to reprocessing that is disposed of as low level waste, and complete in-place closure of the tank farm by September 30, 2012. Flushing, cleaning and emptying of the tanks shall proceed per the approved RCRA closure plans. In light of the legal uncertainties, stabilization of the residual solids, closure of tanks, and any other activities that depend on classification or disposal of waste from reprocessing as anything other than high level waste shall require specific authorization by DOE. The contractor shall perform the work described in Section C.2.4.3 and perform surveillance and maintenance on tanks WM-187, 188, 189 and WM-190 through contract completion.

The contractor shall complete development of all RCRA closure plans for all tanks in the tank farm will commence closure of underground storage tanks WM-103 through WM-106 and WM-180 through WM-186 and ancillary piping and equipment. A Phase I RCRA Closure Plan was issued in April 2002 for tanks WM-182 and WM-183 to begin the closure process. A Phase II RCRA Closure Plan for tanks WM-184, WM-185 and WM-186 was approved by the state of Idaho in February 2004. The Phase III Tank Closure plan for tanks WM-103, WM-104, WM-105, WM-106 and WM-181 was submitted to the state of Idaho in April 2004. (Approved Tank Closure Plans are available on the Shared Library at www.id.doe.gov/doeid/RFPSharedLibrary/refdoc.htm). In addition to the RCRA Closure Plans, a Tier 1 Closure Plan for the entire Tank Farm has been developed and submitted to DOE Headquarters for approval in accordance with DOE Order 435.1.

The tank farm consists of fifteen storage tanks (as described in Table C.1 of Section C.2.4), tank vaults, interconnecting waste transfer lines, valves and valve boxes, cooling equipment, and several small buildings that contain instrumentation and equipment for the waste storage tanks. The tanks are constructed of stainless steel and were placed in service in the 1950s and early 1960s. The eleven large tanks are approximately 50 feet in diameter, have a wall height of approximately 21 feet, and have three or four 12-inch diameter access risers. The tops of the tank vaults are located approximately 10 to 15 feet below grade. The four smaller underground tanks

are horizontal cylinders approximately 11.5 feet in diameter, are 38 feet long, and are covered by compacted gravel. These smaller tanks are not enclosed in vaults, but instead rest on reinforced concrete slabs. Each of the smaller tanks has four or five access risers installed.

C.2.8.2 High Level Waste (HLW) Calcine

The contractor shall maintain approximately 4,440m^3 of previously calcined HLW located in six stainless steel Calcine Solids Storage Facility (CSSF) bin sets in a safe storage configuration. A bin set is a large concrete shielded structure that contains multiple stainless steel tanks that hold the calcined solids. The bin sets contain instrumentation, ventilation and access ports to the stainless steel tanks.

A RCRA Part B storage permit application will be submitted to the state of Idaho during fiscal year 2004 for safe storage of existing calcine in the bin sets. The contractor shall resolve and respond to Notice of Deficiency comments by the Idaho Department of Environmental Quality concerning the CSSF RCRA permit application and obtain approval of the permit.

The contractor shall manage calcine disposition in compliance with existing regulatory and legal requirements. The long-term objective is transfer of calcine to compliant, interim storage in a waste-form suitable for eventual transport to and disposal in a geologic repository per repository acceptance criteria . For project planning purposes, the project will be considered complete when calcine has been packaged in its final compliant waste-form; and shipped from Idaho and/or placed in compliant, interim storage. 104

The contractor shall perform within this contract all necessary activities, such as developing characterization methods, evaluating alternative treatment and containerization technologies, and developing associated deliverables to:

- Provide NEPA support for issuance of an Amended ROD by December 31, 2009, to retrieve and pneumatically transport HLW to a surge tank at the head end of the Integrated Waste Treatment Unit (IWTU) facility where future treatment/packaging of HLW calcine is planned to occur. The ROD will communicate DOE's decision to continue evaluating five candidate treatment technology options analyzed in the Idaho High-Level Waste and Facilities Disposition FEIS (2002). Support of the ROD will include a technical analysis of the candidate treatment options (including support of a hot isostatic pressing research and development initiative) as necessary.

- Perform sufficient design to develop and submit a Permit Modification Request (PMR) to the IWTU RCRA Part B Permit to DOE for review by June 30, 2012. The PMR will address HLW calcine retrieval and pneumatic transport to a designed surge tank at the head end of the IWTU facility, as well as load out of HLW calcine product from the IWTU facility. Design

work will be sufficient to support the approval of a CD-1A package by September 30, 2009 and the approval of a CD-2A package by April 30, 2012.

- The design work and analysis supporting the NEPA ROD, CD-1A and CD-2A packages, and the RCRA Part B Permit PMR shall be based on retrieval, treatment (if required), packaging, and shipment/storage of all HLW calcine within a 12-year period.

- Provide additional management planning activities in support of meeting the SA milestone requiring all calcined waste located at the INL Site to be in a form suitable for transport to and acceptance by a repository or interim storage facility outside of Idaho by a target date of December 31, 2035.

Table C.4 below summarizes the calcine volumes and radioactivity contained in each bin set.

Table C.4 – Calcine Solids Storage Facility Inventories

Bin Set	Calcine Volume - m^3	Radioactivity - Curies	Storage Capacity - m^3
1	217	3.00E+06	227
2	856	6.40E+06	856
3	1,092	7.30E+06	1,097
4	488	4.10E+06	488
5	992	9.10E+06	992
6	741	2.50E+06	1,507
7	Empty	0	1,784

C.3 RADIOACTIVE WASTE MANAGEMENT COMPLEX (RWMC)

SECTION C.3 IN ITS ENTIRETY WAS COVERED DURING THE ORIGINAL PERIOD OF PERFORMANCE THROUGH SEPTEMBER 30, 2012. REFER TO SECTION C.8 ADDITIONAL WORKSCOPE FOR THE EXTENSION WORKSCOPE.

The Radioactive Waste Management Complex (RWMC) consists of 86 facilities and is a controlled area for management and disposal of solid radioactive wastes. It includes a 97-acre SDA within a security fence, buildings for RCRA compliant storage of hazardous TRU waste, and administration and support buildings. The SDA is an unlined landfill that received radioactive waste from INEEL operations and other DOE sites including large amounts of TRU and alpha-contaminated MLLW from operations at the Rocky Flats Plant. The SDA continues to receive low level radioactive waste from INL operations.

The end state for RWMC under this contract is the following:

- Retrieve stored RH LLW and dispose at the SDA, or other appropriate disposal facility
- Retrieve stored RH TRU waste and dispose at WIPP or transfer to ANL-W
- Retrieve waste resulting from EM cleanup activities including low level, hazardous, mixed low level, alpha-contaminated mixed low level and newly generated mixed and non-mixed TRU waste and dispose at an appropriate disposal facility
- Demolish and remove facilities no longer needed
- Continue operation of the vacuum vapor extraction system
- Continue groundwater monitoring program
- Complete remediation of buried TRU waste, including exhumation and disposal as necessary
- Complete and implement Final Comprehensive ROD for WAG 7 (OU 7-13/14)

C.3.1 Facilities

C.3.1.1 Facility Demolition

The contractor shall demolish and remove any buildings and structures including trailers, sheds and canopies, and additional facilities not required to support ongoing missions at RWMC. The contractor shall also demolish AMWTP facilities WMF-628 and WMF-711.

C.3.1.2 Continuing Facility Operations

For those facilities described in Exhibit C.8 required for ongoing missions, the contractor shall maintain all facilities in accordance with the ISMS description (as required by DEAR 970.5223-1).

C.3.2 Utility Systems

The Utility Systems for the RWMC are described in Exhibit C.3. The contractor shall remove any above ground utility system components no longer needed for the EM mission. The contractor shall ensure continuity of services to those RWMC facilities needed to support ongoing EM missions. The INL contractor will provide electrical power to the RWMC substations as described in Exhibit C.3. The contractor shall maintain the power distribution system within the RWMC and reimburse the INL contractor for power consumption as described in Exhibit C.4-1. The contractor shall operate and provide adequate maintenance using a graded approach to all operating utility systems until they are deactivated.

C.3.3 CERCLA Remediation

The RWMC area comprises WAG 7 as described in Exhibit C.1. The contractor shall complete the work in accordance with the RODs for OU 7-8, OU 7-10, and OU 7-12 per Exhibit C.1. The contractor shall perform the required actions necessary to complete the OU 7-13/14 ROD under the FFA/CO in accordance with the following:

- Draft Remedial Investigation and Baseline Risk Assessment (RI/BRA) by August 31, 2006
- Draft Feasibility Study based on the approved RI/BRA by December 31, 2006
- Draft Proposed Plan by March 31, 2007
- Draft ROD for OU 7-13/14 by December 31, 2007, that will specify the remedial approach for the entire WAG 7. Activities include, but are not limited to, maintenance of the current SDA probes, perched water and groundwater monitoring systems.
- Complete and implement Final Comprehensive ROD for WAG 7 (OU 7-13/14)
- Remedial Design/Remedial Action Scope of Work within 21 days of issuance of the ROD.

C.3.3.1 CERCLA OU 7-13/14 Phase 2 In Situ Grouting (ISG)

Complete in situ grouting of mobile radionuclide sources as identified in the Phase 2 Remedial Design/Remedial Action Work Plan for Operable Unit 7-13/14 Rev. 0 (DOE/ID – 11405). The period of performance for this scope extends from the third quarter FY 2009through the third quarter FY 2011.

C.3.4 WAG 7 Waste Exhumation

It is the purpose and intent of this contract to address potential releases to the SRPA from TRU wastes located in the retrieval areas (Table C.5) by removing the wastes identified below and simultaneously removing other collocated contaminants of concern. If retrieval activities are dependent on the outcome of pending NEPA, CERCLA, or other applicable regulatory processes, the contractor is authorized to continue those activities to the extent they are consistent with applicable NEPA, CERCLA, or other regulatory decisions and do not prejudice the selection of future retrieval activities. The contractor shall work with DOE and the regulators to develop a project plan that governs what materials will be removed from the SDA based upon measured or visual information including but not limited to:

1. Focus retrieval on TRU waste, as defined in the WIPP Land Withdrawal Act, based on a combination of inventory data, visual screening, and field measurements;
2. Maximize TRU curies retrieved and removal of volatile organic compounds as co-contaminants;
3. Minimize generation of waste with no path to disposal;
4. Problematic materials such as, but not limited to, RH waste, waste without treatment technologies or disposal pathways, large pieces of equipment or other large objects may be left in place if they do not present a significant risk to human health or safety; and
5. Ensure consistency of retrieval actions with the anticipated final remedy for the SDA, which will likely also include a cap, stabilization and/or containment.

The contractor shall retrieve, consistent with the above criteria, the following waste streams in the areas listed in Table C.5 below, as determined by inventory data and visual identification:

- Rocky Flats Building 741 sludges;
- Rocky Flats Building 742 sludges
- Rocky Flats Building 743 sludges;
- Graphite wastes;
- Roaster oxides; and
- Filters and pre-filters.

If new information becomes available that supports the reprioritizing or change in scope of the retrieval actions, the contractor shall propose to DOE, for regulatory approval, a modification to the schedule or scope of the retrieval actions or areas as defined in Table C.5 below. Pending DOE authorization, the contractor shall begin exhumation, i.e., retrieval of buried TRU and other collocated wastes, in Retrieval Area # 1 by July 1, 2005, and complete all retrieval by September 30, 2012. Refer to Exhibit C.14 for a retrieval area map.

Table C.5 WAG 7 Waste Exhumation Areas

Retrieval Area No.	Designated Area	Acreage
1	ARP 1/Pit 4	.50
2	ARP II/Pits 4/6	.34
3	ARP III/Pit 6* (.37)	.43*
4	ARP IV/Pit 5	.79
5	ARP V/Pit 9	.27
6	ARP V/Pit 9	.28
	Total Acreage* (2.55)	2.61*

*This is the amount required by the OU 7-13/14 ROD; however, .06 acres between ARP II and ARP III will not be required to be exhumed during this contract period. The total for this contract is 2.55 acres.

The contractor shall by the end of the contract term dispose of the retrieved waste in accordance with the applicable waste disposal requirements, specified in Sections C.1.8 and C.3.5 of the SOW.

The contractor shall by the end of the contract term perform in-situ grouting of soil vaults and trench areas totaling approximately 0.2 acres per section 12.2.2 of the Record of Decision for Radioactive Waste Management Complex Operable Unit 7-13/14.

C.3.5 Waste Management and Disposal

The contractor shall ensure that all wastes at RWMC are properly characterized and maintained in safe, compliant storage until properly disposed of or shipped off-site.

The contractor shall establish management controls to allow timely and efficient verification by DOE of waste volumes retrieved, treated, certified, packaged, loaded and shipped off site. In addition to waste management services and requirements discussed in Section C.1.8, the contractor shall dispose of the wastes discussed in this section.

The contractor shall safely manage and dispose of waste, generated by or discovered during on-site EM cleanup activities specified in the SOW, at an appropriate disposal facility. Waste types include, but are not limited to, CH LLW, RH LLW, hazardous waste, mixed waste, alpha-contaminated mixed LLW, TRU and mixed TRU waste. DOE anticipates that the WIPP waste acceptance criteria for RH-TRU will be approved by December 2005.

For TRU waste shipments to WIPP, the contractor shall load transport casks provided by WIPP and coordinate any transport inspections required by the state of Idaho prior to the casks leaving the RWMC. The contractor shall reach agreement with the DOE Carlsbad Field Office, approximately one month in advance, on specific dates for TRU waste shipments to WIPP. In disposing of TRU waste, the contractor shall minimize the actual disposal volumes at WIPP. Such measures shall include, but not be limited to, utilizing payload configurations and waste packaging that minimizes dunnage and maximizes shipping efficiency per DOE Carlsbad Field Office guidelines specified in CBFO:NTP:JDV:VW:01-1732:UFC:5822 *Maintaining Efficiency of TRU Waste Shipments to WIPP* dated September 27, 2001, available on the Shared Library.

During the course of operations at the AMWTP, the ICP contractor may receive waste that does not meet the acceptance criteria specified in the AMWTP contract. The ICP contractor shall receive, store, characterize, treat as necessary, package, and dispose of this waste and any resulting secondary waste. Waste types include, but are not limited to, RH-TRU waste; "suspect" RH-TRU (waste managed as CH TRU, but containing lead shielding inside its storage container to limit the surface dose rate to less than 200 mrem/hr); and RH waste managed as RH-TRU waste. The ICP contractor will perform this scope of work on a full cost recovery basis negotiated with the AMWTP contractor. Suspect TRU determined to be CH-TRU will be returned to the AMWTP contractor to complete the requisite disposal actions.

C.3.5.1 Remote-Handled TRU Waste

The contractor shall retrieve stored RH TRU waste (approximately 129 m^3 in 718 containers) and characterize, treat (if necessary), certify, package and load it into approved transport containers for disposal at WIPP by September 30, 2011. The contractor shall ship 30 canisters of this waste, referred to as "Hot Fuel Examination Facility (HFEF) Inserts," to INTEC, no later than September 30, 2009. The waste will be stored at INTEC in compliance with all applicable regulations.

RH-TRU waste is stored in the following location:

WMF-714
631 drums @ 30-gallons capacity
19 drums @ 55 gallons capacity
30 HFEF Inserts (Contents of two canisters include radioisotopes of the thorium fuel cycle. See *EDF-4208*)

C.3.5.2 Reserved

C.3.5.3 Reserved

C.3.5.4 Fuel Skeleton Baskets

The contractor shall retrieve Dry Rod Consolidation Technology nuclear fuel skeleton baskets from WMF-714 and characterize, treat (if necessary), certify, package and dispose of them at an appropriate disposal facility. The baskets that consist of highly irradiated metals received from the Turkey Point and Surry nuclear power plants do not contain fissile materials.

C.3.5.5 Reserved

C.4 TEST AREA NORTH (TAN)

SECTION C.4 IN ITS ENTIRETY WAS COVERED DURING THE ORIGINAL PERIOD OF PERFORMANCE THROUGH SEPTEMBER 30, 2012. REFER TO SECTION C.8 ADDITIONAL WORKSCOPE FOR THE EXTENSION WORKSCOPE.

The TAN area is located at the north end of the INEEL, about 27 miles northeast of the CFA and covers about 220 acres. TAN was established in the 1950s by the U.S. Air Force and Atomic Energy Commission Aircraft Nuclear Propulsion Program to support nuclear-powered aircraft research. Upon termination of this research, the facilities were converted to support a variety of other DOE research projects. TAN is composed of three operations areas: the Contained Test Facility, the Technical Support Facility, and the Water Reactor Research Test Facility. The Technical Support Facility is the main administration, assembly, and maintenance area for TAN. Facilities that supported this program, notably the Loss of Fluid Test (LOFT) facility, have been maintained in shutdown condition over the past several years. The Water Reactor Research Test Facility to the east of the Technical Support Facility is no longer in use.

The end state for TAN under this contract is the following:

- Demolish all EM owned excess facilities (only facilities required for groundwater remediation remain);
- Complete all VCO tank system actions;
- Complete all remediation of contaminated soils and tanks at TAN (OU 1-10);
- Continue CERCLA remedial pump and treat activities (OU 1-07B); and
- Close or transfer TAN landfill to INL contractor following completion of TAN demolition.

C.4.1 Facilities

C.4.1.1 Facility Demolition

The contractor shall demolish and remove the excess facilities listed and described in Exhibit C.9a, and including all minor structures and equipment not needed to support ongoing work. The contractor shall coordinate with the INL contractor on demolition plans for TAN-630 Control and Equipment Building and on utilities removal in the vicinity of TAN-601 Guard House and the Specific Manufacturing Capability complex to minimize impacts on ongoing INL Operations.

C.4.1.2 High-Risk Facility Disposition

The contractor shall disposition the following two high-risk facilities listed and described in Exhibit C.9.b:

- TAN-607 - Hot Shop Complex
- TAN-650 - LOFT Reactor Containment Complex

The contractor shall achieve specific end states as described in Section C.1.6.4 for these two high-risk facilities and as a minimum shall include removal or immobilization of all water, sludge and debris from the TAN-607 wet storage pool, disposition of the TAN-607 pool, and demolition of the remaining TAN-607 complex and TAN-650 LOFT Reactor Containment Complex. It includes a large hot shop, a warm shop, a SNF storage pool, a hot cell with an underlying tunnel, and various water treatment, ventilation, utility and equipment and storage areas. The TAN-650 LOFT Reactor Containment Complex is a five-story stainless-steel reactor containment structure designed to provide a 40 psig pressure containment barrier. While the reactor and associated steam generator equipment have been removed from the containment, all of the contaminated support and core cooling systems remain in place along with sumps contaminated with mercury. Exhibit C.9b provides descriptions of hazards, contamination levels, reference documents and other facility design characteristics that may challenge conventional deactivation or demolition practices.

C.4.1.3 Continuing Facility Operations

The contractor shall operate and maintain the four TAN facilities listed in Exhibit C.9c required for ongoing groundwater pump and treat operations and TAN industrial waste disposal in accordance with the contractor's documented ISMS Description (as required by DEAR 970.5223-1).

C.4.2 Utilities

The contractor shall remove all utility systems supporting only EM facilities. The contractor shall coordinate with the INL contractor to ensure the contractor's actions will not affect continuity of utilities to INL facilities (including TAN 601 Guard House and the Specific Manufacturing Capability complex) and provide for services for facilities listed in Exhibit C.3. The INL contractor will provide electrical power to the TAN substation as described in Exhibit C.3. The contractor shall reimburse the INL contractor for power consumption as described in Exhibit C.4-1. The contractor shall implement a graded approach to the continuation of services and maintenance on all utility systems.

C.4.3 CERCLA Remediation

The TAN Area comprises WAG-1 and includes two OUs, OU 1-07B, TSF Injection Well that addresses waste injected into the SRPA from development of the atomic airplane engine, and OU 1-10, Comprehensive RI/FS that addresses remediation of contaminated soils and tanks within the TAN fence. The FFA/CO allows the contractor to propose alternative methods for achieving ROD requirements. Any alternative methods are subject to authorization by DOE and approval by the regulators.

C.4.3.1 OU 1-07B

The contractor shall continue operation of the OU 1-07B ROD (AR 10139 & Amendment) groundwater pump and treat remediation including operating the bioremediation system (currently subcontracted to North Wind Environmental Services), operating the pump and treat system, monitoring groundwater, and maintaining institutional controls until the remediation goals are achieved. If the goals are achieved during the contract period, the contractor shall prepare and submit the Remedial Action Report and demolish and remove the OU 1-07B remediation system.

C.4.3.2 OU 1-10

The contractor shall complete all remedial actions in accordance with the OU 1-10 ROD (AR DOE/ID-10682, dated October 1999) and includes V-tank contents removed, treated and disposed; V-tanks removed and dispositioned; PM-2A tanks and burn pit remediated; and Final Remedial Action Report submitted.

C.4.4 Waste Management

The contractor shall disposition three contaminated CUNO® filters located in a concrete storage cask on the TAN-790 pad.

The contractor shall operate the non-municipal solid waste landfill at TAN in compliance with the state-approved operating plan. Upon completion of the demolition and removal scope at TAN, the contractor shall either negotiate a transfer to the INL contractor or close the landfill. Alternatively, the contractor is free to propose alternative dispositions for this landfill, subject to approval by the CO, provided that all applicable regulatory requirements are satisfied and EM liabilities beyond the contract period are eliminated.

C.4.5 Voluntary Consent Order Actions

The contractor shall disposition the five tank systems governed by and in accordance with the VCO as identified in Exhibit C.2.

C.5 TEST REACTOR AREA (TRA)

SECTION C.5 IN ITS ENTIRETY WAS COVERED DURING THE ORIGINAL PERIOD OF PERFORMANCE THROUGH SEPTEMBER 30, 2012. REFER TO SECTION C.8 ADDITIONAL WORKSCOPE FOR THE EXTENSION WORKSCOPE.

TRA is located in the southwest portion of the INEEL, 4.9 miles northwest of the CFA and covers about 102 acres. The major mission of the TRA is to conduct scientific and engineering experiments for both nuclear and non-nuclear programs. The TRA was established in the early 1950s with the development of the MTR followed by two other major reactors, the ETR and the ATR. The end state for TRA under this contract is the following:

- Demolish all EM-owned facilities
- Disposition the ETR and the MTR Complexes
- Complete all VCO tank system actions
- Complete Five-year review of OU 2-13
- Complete remedial actions of TRA release sites under OU 10-08

C.5.1 Facilities

The contractor shall demolish and remove the excess facilities listed and described in Exhibit C.10a. The contactor shall coordinate with the INL contractor on demolition and utility removal plans for TRA-626 Maintenance Storage Building, TRA-784 Liquid Nitrogen Tank, and TRA-604 MTR Building Wing A Laboratory. The contractor shall disposition the following two high-risk reactors listed and described in Exhibit C.10b:

- TRA-642 ETR

- TRA-603 MTR

The contractor shall achieve specific end states as described in Section C.1.6.4 for these two high-risk reactors and associated canal and support equipment. The contractor shall disposition the ETR Reactor and demolish the entire ETR Complex. The contractor shall disposition the MTR Reactor and demolish the entire MTR Complex and associated support equipment, except that the contractor shall not commence demolition of the TRA-604 Laboratory before February 1, 2007. In order to preserve critical utilities routed through the basement of TRA-604, the contractor shall demolish the TRA-604 Laboratory building only down to, but not including, the ground-level slab or develop another approach that maintains these utility services. The contractor shall leave the basement and utility systems contained in the TRA-604 basement intact and assure that it is weather tight and in the same general operational status as at contract takeover. The TRA-604 basement shall then be turned over to the INL contractor. Exhibit C.10b describes hazards, contamination levels, reference documents and other facility design characteristics that may challenge conventional deactivation or demolition practices.

C.5.2 Utilities

The contractor shall remove all utility systems within EM facilities, as they are demolished with the exceptions noted for the MTR complex. The contractor shall coordinate with the INL contractor to ensure the contractor's actions will not affect continuity of utilities to INL facilities. The contractor shall ensure utilities routed through the TRA-604 Laboratory building basement remain in the same general operational status as at contract takeover. The contractor shall reroute other utilities running through the MTR complex that are critical to INL operations beyond the MTR complex.

The contractor shall provide services for facilities listed in Exhibit C.3. The INL contractor will provide electrical power to the TRA substation as described in Exhibit C.3. The ICP contractor shall reimburse the INL contractor for power consumption as described in Exhibit C.4-1. The contractor shall implement a graded approach to the continuation of services and maintenance on EM facility utilities.

C.5.3 CERCLA Remediation

The TRA area comprises WAG 2 and includes OU 2-13, Comprehensive RI/FS ROD that addresses remediation of contaminated soils, process water ponds, and perched water at TRA. OU 10-08 includes four newly identified potential release sites within the TRA area that were discovered after the OU 2-13 ROD was signed. The contractor shall remediate past releases to the environment listed in the FFA/CO at WAG 2 (TRA). This includes, but may not be limited to, post-ROD monitoring, maintenance of remedies and institutional controls and completion of five-year reviews for WAG 2. Contractor actions under OU 10-08 are addressed in Section C.7. The FFA/CO allows the contractor to propose alternative methods for achieving ROD requirements. Any alternative methods are subject to authorization by DOE and approval by the regulators.

C.5.4 Nuclear Materials

The contractor shall dispose or disposition all nuclear materials listed in Table C.6 below and stored at TRA, an INL contractor controlled facility, to an approved DOE or commercial disposal or storage facility by September 30, 2009. Table C.6 includes the projected disposition for the materials, but the contractor is not limited to this disposition path. The contractor shall package and ship the nuclear materials in accordance with transportation regulations and receiver site requirements. The contractor shall coordinate with INL contractor to ensure access to the nuclear material to support the required shipping schedule. The INL contractor will provide Materials Control and Accountability for these materials.

Table C.6 EM Nuclear Materials at TRA

COMPLETE

Description	Projected Disposition	Quantity (kg U)	Current Storage Config.
[redacted]			

C.5.5 Voluntary Consent Order Actions

The contractor shall disposition the 20 tank systems governed by and in accordance with the VCO as identified in Exhibit C.2.

C.5.6 Fuel Transfers from TRA to INTEC

The contractor shall transfer the approximately 5kg of SNF listed in Table C.7 below from TRA to safe storage at INTEC by September 30, 2009.

Table C.7 SNF at TRA to be Transferred to INTEC

Item No.	Fuel Description	Amount (Total Uranium)*	Current Storage Configuration
1	PCM - HEU, primarily UO2 clad in Zr. Remnants from NRC testing at PBF	113 g	Dry in Cask XMTR-11
2	OPTRAN – LEU, primarily UO2 clad in Zr. Remnants from NRC testing at PBF	55 g	Dry in Cask XMTR-11
3	PBF – HEU UO2+ZrO2+CaO fuel pellets in Zr sleeves in SS cladding. Remnants from NRC testing at PBF	282 g	Various
4	LOFT – LEU, 4% to 9% enriched, UO2 in Zr cladding. SNF from LOFT reactor.	2,153 g	Various
5	H B Robinson – LEU, primarily UO2 fuel clad in Zr, Uranium oxide pellets. Materials from NRC experiments in PBF reactor.	1,108 g	Dry in 306 Cask in service area between Cells 2 & 3
6	H B Robinson – Plutonium, primarily UO2 fuel clad in Zr, Uranium oxide pellets. Materials from NRC experiments in PBF reactor.	7 g*	Dry in 306 Cask in service area between Cells 2 & 3
7	TMI-2 – LEU, 2.5% enriched UO2 in Zircalloy-4 cladding	1 g	Dry in Cask 701
8	PCM – HEU, primarily UO2 fuel clad in Zr. Materials from NRC experiments in PBF reactor.	86 g	Dry in Cask 701
9	PBF – HEU, primarily UO2 fuel clad in Zr. Materials from NRC experiments in PBF reactor.	257 g	Dry in Cask 701
10	PCM – HEU, primarily UO2 fuel clad in Zr. Materials from NRC experiments in PBF reactor.	20 g	Dry in Cask 701
11	RIA – LEU, primarily UO2 fuel clad in Zr. Materials from NRC experiments in PBF reactor.	215 g	Dry in Cask 701
12	OPTRAN – LEU, primarily UO2 fuel clad in Zr. Materials from NRC experiments in PBF reactor.	23 g	Dry in Cask 701
13	PBF – LEU, primarily UO2 fuel clad in Zr. Materials from NRC experiments in PBF reactor.	157 g	Dry in Cask 701
	TOTAL	**4,477 g**	

***** For Item No. 6 only, the gram amount is total plutonium rather than total uranium.

C.6 POWER BURST FACILITY (PBF)

SECTION C.6 IN ITS ENTIRETY WAS COVERED DURING THE ORIGINAL PERIOD OF PERFORMANCE THROUGH SEPTEMBER 30, 2012. REFER TO SECTION C.8 ADDITIONAL WORKSCOPE FOR THE EXTENSION WORKSCOPE.

The PBF (formerly known as the Special Power Excursion Reactor Tests Area) is located in the south-central portion of the INEEL site, about nine miles east of the CFA. The PBF is divided into five areas: the Control Area, the Reactor Area, the Waste Engineering Development Facility, the Waste Experimental Reduction Facility, and the Mixed Waste Storage Facility. This SOW includes only the PBF Reactor, and a small CERCLA waste storage unit at the Auxiliary Reactor Area (ARA) listed in Exhibits C.11a and 11b.

The end state for PBF under this contract is the following:

- Disposition PBF Reactor
- Complete five-year review of OU 5-12

C.6.1 Facilities

The contractor shall demolish and remove the excess facility(s) listed in Exhibit C.11a. The contractor shall disposition the following high-risk reactor listed and described in Exhibit C.11b:

- PBF- 620 PBF Reactor and Building

The contractor shall achieve the specific end state as described in Section C.1.6.4 for this high-risk reactor and building which, as a minimum, shall include an end state for the nuclear reactor and associated canal and support equipment; removal or immobilization of the water, debris and sludge from the reactor tank, and deactivation of the heavily contaminated experimental cells in the reactor building sub-basement. The PBF reactor is a tank-style power burst reactor with highly activated internals still in place. Although the reactor has been shut down and de-fueled, many systems and support equipment remain in place and are highly contaminated or activated, especially experimental cells 10 and 13 which were used for fuel failure experiments. The cells in the sub-basement of the reactor building are highly radioactive, heavily contaminated, and have not been accessed or characterized in the last 17 years. Exhibit C.11b provides descriptions of hazards, contamination levels, reference documents and other facility design characteristics that may challenge conventional deactivation or demolition practices.

C.6.2 Utilities

The contractor shall remove all utility systems supporting only EM facilities, as they are demolished. The contractor shall coordinate with the INL contractor to ensure the contractor's actions will not affect continuity of utilities to INL facilities and provide for services for facilities listed in Exhibit C.3. The INL contractor will provide electrical power to the PBF-608 substation. The contractor shall reimburse the INL contractor for power consumption as described in Exhibit C.4-1. The contractor shall implement a graded approach to the continuation of services and maintenance on EM facility utilities.

C.6.3 CERCLA Remediation

The PBF area comprises WAG 5. The contractor shall complete all activities necessary to close out the OU 5-12 ROD including final FFA/CO documentation. The contractor shall remediate past releases to the environment listed in the FFA/CO at WAG 5. This includes, but may not be limited to, post-ROD monitoring, maintenance of remedies and institutional controls and completion of five-year reviews for WAG 5. The FFA/CO allows the contractor to propose alternative methods for achieving ROD requirements. Any alternative methods are subject to authorization by DOE and approval by the regulators.

C.6.4 Reserved

C.6.5 Voluntary Consent Order Actions

The contractor shall disposition the tank system governed by and in accordance with the VCO as identified in Exhibit C.2.

C.6.6 Monitoring Near Tank PER-722

The contractor shall complete the three years of ground water monitoring near the PBF heating oil tank, PER-722, required by the state of Idaho approved Ground Water Monitoring Plan for PER-722 Underground Storage Tank Release. The plan is located on the shared library.

C.7 MISCELLANEOUS SITES

SECTION C.7 IN ITS ENTIRETY WAS COVERED DURING THE ORIGINAL PERIOD OF PERFORMANCE THROUGH SEPTEMBER 30, 2012. REFER TO SECTION C.8 ADDITIONAL WORKSCOPE FOR THE EXTENSION WORKSCOPE.

The contractor shall complete remaining actions under WAG 10, OU 10-04, Comprehensive RI/FS ROD, for known contamination outside facility area boundaries. This includes soil cleanup, potential ordnance removal and disposition, removal and disposition of soil contaminated with explosive material such as TNT and RDX, and completion of the five-year review. As part of miscellaneous sites the contractor shall remediate past releases to the environment listed in the FFA/CO at WAG 4 (CFA), including OU 4-13. This includes, but may not be limited to, post-ROD monitoring, maintenance of remedies and institutional controls, and completion of WAG 4 five-year reviews.

The contractor shall continue site-wide ecological monitoring in accordance with the Long Term Ecological Monitoring Plan for the INEEL (at www.ar.inel.gov); determine if any ecological damage has been done, and take appropriate action. The FFA/CO allows the contractor to propose alternative methods for achieving ROD requirements. Any alternative methods are subject to authorization by DOE and approval by the regulators.

The contractor shall perform the required actions, such as maintain and collect the required information, to complete the OU 10-08 ROD by the enforceable milestone date that will be set upon completion of the ROD's for OU's 3-14 and 7-13/14. The contractor shall implement the OU 10-08 ROD in accordance with CERCLA and the FFA/CO.

C.8 ADDITIONAL WORKSCOPE

Refer to the Extension C.8 Additional Workscope.

C.9 PROJECT SUPPORT

C.9.1 Project Management System

The contractor shall develop and maintain a project management system in accordance with clause H.1, Project Control Systems and Reporting Requirements.

C.9.2 Integrated Safety Management System (ISMS) and Environmental Safety and Health Program (ES&H)

The contractor shall maintain a single ISMS to accomplish all work as required by DEAR 970.5223-1, *Integration of Environment, Safety and Health into Work Planning and Execution*. The contractor's ISMS shall ensure safety and environmental protection considerations are integrated throughout the entire work planning and execution process and shall extend through the execution of individual work packages where job-site safety is ensured for each worker. The contractor shall ensure that the principles of ISM serve as the foundation of the implementing mechanisms for work at the site. The contractor shall ensure that the structure of requirements to achieve nuclear safety is based on sound principles such as defense in depth, redundancy of protective measures, robust technical competence in operations and management oversight, and compliance with DOE Directives embodying nuclear safety requirements.

The contractor shall resolve any pre-existing open corrective actions identified by prior ISMS Verifications. The ISMS program shall be subject to an annual verification review by a DOE-ID chartered ISMS Verification Team. The contractor shall integrate the concepts of continuous improvement into work activities, including the use of safety and environmental management systems and independent certifications e.g., the International Organization for Standardization (ISO) and Voluntary Protection Program (VPP) Star.

The contractor shall maintain an ES&H program to ensure the protection of the workers, the public and the environment. The contractor's ES&H program shall be operated as an integral, but visible, part of how the contractor conducts business. This includes prioritizing work planning and execution, establishing clear ES&H priorities, allocating resources to address programmatic and operational considerations, collecting and analyzing samples, correcting non-compliances and addressing all hazards for all EM facilities, operations and work. The contractor shall ensure that cost reduction efforts and efficiency efforts are fully compatible with ES&H performance.

The contractor shall ensure that all required life safety, occupational medicine, fire protection, operational and emergency response, and other institutional safety programs are provided throughout the life of the contract. As described in Section C.1.10, the ICP contractor is required to purchase these site services from the INL contractor from the contract takeover date through January 31, 2007.

The contractor shall conduct all activities in compliance with environmental protection requirements including, but not limited to, those listed in Section J, List of Applicable DOE Directives. The contractor shall take all actions necessary to preclude accidents and injuries, keep worker exposures as low as reasonably achievable, and prevent environmental releases. The contractor shall promptly respond to operational events and environmental releases.

The contractor shall maintain safety analysis documents. The contractor shall, at contract award, adopt existing regulatory required implementation plans and processes e.g., 10 CFR Part 835 Radiation Protection Plan (RPP), 10 CFR Part 830 Quality Assurance Implementation Plan, and Unreviewed Safety Question Process. The contractor may elect to update the adopted plans and resubmit them for DOE approval.

C.9.3 Records Management

The contractor shall provide a records management program compliant with Title 36, Code of Federal Regulations, Subpart B**.** This includes, but is not limited to, maintenance, storage, protection and disposition of active and inactive records, retrieval from on-site storage facilities, and support for ongoing discovery efforts associated with litigation. The contractor shall provide a complete records inventory list in a suitable format to the post-closure records custodian identified by the CO. The contractor shall incorporate records management and records management archival functions into the design, development, and implementation of information systems.

C.9.4 Safeguards, Security and Counterintelligence

The contractor shall establish and maintain a security plan, as required by DOE directives, and coordinate regularly with the INL contractor to ensure appropriate levels of protection against: unauthorized access, theft, diversion, or loss of custody of nuclear materials; espionage; loss or theft of classified information or Government property; and hostile acts that may cause unacceptable adverse impacts on national security or the health and safety of DOE and contractor employees, the public, and the environment.

The contractor shall provide cogent and accurate input, as needed, to the INL contractor for applicable elements of the Site Safeguards and Security Plan and participate in safeguards and security drills and exercises as required by DOE directives.

The contractor shall promptly prepare and submit applications for security clearances, for adjudication by DOE-ID, as required for work under this contract. The contractor shall maintain the security-facilities infrastructure at RWMC and INTEC, including CPP-1674 that

houses the site-wide Central Alarm Station. The contractor shall promptly adjust to the Security Condition determined by DOE. The contractor shall provide a Cyber Security Program to maintain ICP automated information systems, test systems and network interface; provide training; identify threats and vulnerabilities; assess risks to the systems; and oversee cleanup subcontractor computer security programs.

The contractor shall develop and maintain Nuclear Materials Control and Accountability Program, an Operations Security Program, a Classification Program, an Information Security Program, and a General Security Awareness Training Program as required by DOE directives.

To improve environmental cleanup work efficiency, the contractor shall evaluate and modify or eliminate protected area fences or modify other physical and administrative controls, provided the safeguards and security requirements, specified in federal regulations and DOE Directives, Section J, List of Applicable Directives, are satisfied.

Refer to Exhibit C.8-8 for a description of services to be provided to the ICP contractor by the INL contractor, including additional interfaces regarding safeguards and security.

C.9.5 Legacy Management

The contractor shall ensure that legacy management issues are considered in the cleanup decision-making process and the cost of cleanup is balanced with DOE's post-closure liability. The contractor shall notify and gain approval from DOE prior to making cleanup decisions that impact legacy management in order to minimize DOE's post-closure liability. The contractor shall maintain appropriate legacy management records and turn over required records to the INL contractor at the end of the contract term.

Even though the legacy management activities after site closure are not included in the scope of this contract, the activities needed to ensure the site's successful transition to a legacy management status are included. The contractor shall support DOE in its efforts to ensure institutional and engineered controls are in place and functioning in a manner consistent with applicable regulatory requirements.

C.10 DOE SUPPORT

The contractor shall support DOE in its interactions with stakeholder and oversight organizations by providing information and technical data, supporting tours, and other reasonable items. Examples of support to be provided by the contractor include, but are not limited to, interactions with the state of Idaho under the Environmental Oversight and Monitoring Agreement, interactions with the Sho-Ban Tribes, interactions with the Citizens Advisory board, interactions with the Defense Nuclear Facilities Safety Board and Nuclear Regulatory Commission, and interactions with DOE headquarters organizations.

The contractor shall provide on-site office space for approximately 21 DOE personnel (INTEC-11 and RWMC-10,). The contractor shall provide services to include, but not

limited to, custodial services, daily mail, computer support, telecommunications, printing, audiovisual support, and moving of furniture and equipment. As EM cleanup work is completed, the contractor shall terminate these services at the respective facilities.

C.11 POTENTIAL WORK OUTSIDE OF TARGET COST

The Contractor shall provide services as directed by the CO. An example of services includes, but is not limited to: NNPP owned waste streams (this will continue under B.16 per Navy's request) and resolution of litigation, either existing or assigned to the Contractor, under Section H.11.

Upon request by DOE, the Contractor shall verify employment histories and provide medical records, radiation dose records, and any other records related to or pertinent to the condition or case for any individual who applies for compensation under the Energy Employees Occupational Illness Compensation Program Act of 2000 (EEOICPA), Public Law 106-398, 42 U.S.C. 7384, et seq. When directed by DOE, the Contractor shall not contest a worker's compensation claim or award determined to be valid pursuant to Subtitle D of the EEOICPA. The Contractor shall track EEOICPA costs and provide a monthly activity report of funds spent on EEOICPA claims processing. The Contractor shall provide records search and any resulting workers' compensation determinations. Only the administrative activity to support this function is included in target cost (compensation of claims or awards is not included).

The above services, except the EEOICPA administrative activity, are not included in the EM Funding Profile in Section B, Contract Funding Profile, and are not currently included in the target cost. Additional funding, based on cost, scope, and fee negotiations with the Contractor, will be provided, if such services are authorized.

C.12 GOVERNMENT PROPERTY INCLUDING MOTORIZED VEHICLES AND RELATED EQUIPMENT

For the purpose of the Extension the property that is as of September 30, 2012 in control of the ICP contractor including the fleet of motorized vehicles and related equipment will continue to be furnished to the ICP contractor by the Government. The ICP contractor shall establish and maintain a program for the use, maintenance, repair, protect and preservation of government property for use in connection with and under the terms of this contract.

The ICP contractor shall continue to administratively control items that have a cost of less than $5,000 per items which are currently in their control. The ICP contractor shall manage and ultimately, disposition these administratively controlled items in accordance with 48 CFR Part 45, Government Property.

The contractor shall provide timely and accurate information to the INL contractor regarding real property asset management.

C.13 MANAGEMENT PROJECT CONTROLS

PROJECT CONTROL SYSTEM

1. Definition

The contractor shall support the establishment and maintenance of the Department of Energy Environmental Management (EM) Project Management Information System (PMIS) from which comprehensive, project-wide performance reports are generated.

In addition, the contractor shall provide all necessary technical information and support to enable DOE to proceed with the Critical Decision process and enable DOE to meet the data requirements of the Integrated Planning, Accountability and Budgeting System.

2. Acronyms

The following is a listing of acronyms and their meaning as used in this work statement:

ACWP	Actual Cost of Work Planned
ANSI	American National Standards Institute
BCWS	Budgeted Cost of Work Scheduled
BCWP	Budgeted Cost of Work Planned
CPR	Contractor Performance Report
EDI	Electronic Data Interchange
EIA	Electronic Industry Association
EM	Environmental Management
ETC	Estimate to Complete
EV	Earned Value
IPABS	Integrated Planning, Accountability and Budgeting System
MR	Management Reserve
OBS	Organizational Breakdown Structure
PMIS	Project Management Information System
RDT&E	Research, Development, Testing and Evaluation
WBS	Work Breakdown Structure

3. Data Requirements

In support of EM PMIS implementation and maintenance, the contractor shall provide the following data elements on a monthly basis.

ANSI/EIA-748 Earned Value Metrics
Earned Value Time-Phased Incremental Cost and Quantity Data
Management Reserve Data
Schedule Data
Variance Analysis Data
Risk Data

The required data elements shall be reported no later than the 5th work day of the current month for the previous month of reference (i.e., September data shall be reported no later than the 5th work day of October). Specific reporting requirements and formats follow. The contractor, at a minimum, shall submit information for all data elements, as listed in the attached tables.

ANSI/EIA-748 Earned Value Metrics

The contractor shall report monthly cost and schedule metrics by Work Breakdown Structure (WBS) and Organizational Breakdown Structure (OBS) against the approved Project Management Baseline. The reporting data elements are:

- Monthly BCWS, BCWP, ACWP, Cost and Schedule Variance
- Cumulative-to-Date BCWS, BCWP, ACWP, Cost and Schedule Variance
- Cost Budget at Complete
- Cost Estimate to Complete
- Reprogramming Adjustment – Cost Variance
- Reprogramming Adjustment – Budget

The reporting format is noted in Tables 3.6.1, 3.6.2 and 3.6.3, attached.

Earned Value Time-Phased Incremental Cost and Quantity Data

The contractor shall report incremental cost and schedule performance data on a monthly basis by the lowest level of the WBS and OBS. The reporting data elements are:

- BCWS for the project duration
- BCWP from the project start through the current month
- ACWP from the project start through the current month
- ETC from the current month through the end of the project

The reporting format is noted in Table 3.1, attached.

Management Reserve Data

The contractor shall report Management Reserve by WBS and OBS using the data elements *Transaction Date, Credit, Debit* and *Account Balance*. The reporting format is noted in Table 3.2, attached.

Schedule Data

The contractor shall report Schedule data by WBS and OBS; the following data elements shall be reported:

- Type of Activity
- Early/Late Start
- Early/Late Finish
- Start and Finish constraints
- Durations
- Critical Path
- Total and Fee Float
- % Complete

The reporting format is noted in Tables 3.3.1 and 3.3.2, attached.

Variance Analysis Data

The contractor shall report variances by WBS and OBS that exceed 10%. The following data elements shall be reported:

- Monthly Cost and Schedule Variances and Performance Indices
- Cumulative-to-Date Cost and Schedule Variances and Performance Indices
- Variance at Completion
- Estimate at Completion and the Method of Calculation
- Narrative

The reporting format is noted in Tables 3.4.1 and 3.4.2, attached.

Risk Data

The contractor shall report risk information by WBS and OBS by a minimum set of data elements that include, but not limited to the following:

- Type of Risk
- Probability of Occurrence
- Quantification of Risk
- Mitigation
- Status

The reporting format and current list of reportable fields is noted in Table 3.5, attached.

Attachment

EM PMIS REPORTING FORMAT TABLES

Table 3.1

Earned Value Time Phased Table Earned Value Time-phased Incremental Data for Each Period by WBS and OBS				
Field Name	**Field Type**	**Length**	**Description**	**Reqd.**
ProjectName	VARCHAR	50	Project Identification Code	*
StatusDate	DATETIME		End Date of Current Reporting Period	*
WBSNUM	VARCHAR	35	WBS Element or ID	
OBSNUM	VARCHAR	50	OBS Element or ID	
ActNam	VARCHAR	16	Activity Name	
Resnam	VARCHAR	20	Resource Name	
Period	DATETIME		End Date of Period where Each cost is Time Phased	*
WBSDesc	VARCHAR	255	WBS Description	
OBSDesc	VARCHAR	255	OBS Description	
CINCBCWS	NUMERIC	16	Cost Incremental Planned Value/BCWS	*
CINCBCWP	NUMERIC	16	Cost Incremental Planned Value/BCWP	*
CINCAWWP	NUMERIC	16	Cost Incremental Planned Value/ACWP	*
CINCETC	NUMERIC	16	Cost Incremental ETC-Future from Status Date	*
QINCBCWS	NUMERIC	16	Quantity Incremental Planned Value/BCWS	
QINCBCWP	NUMERIC	16	Quantity Incremental Planned Value/BCWP	
QINCACWP	NUMERIC	16	Quantity Incremental Planned Value/ACWP	
QINCETC	NUMERIC	16	Quantity Incremental ETC-Future from Status Date	

Table 3.2

Earned Value Management Reserve Log Table Management Reserve Log				
Field Name	**Field Type**	**Length**	**Description**	**Reqd.**
ProjectName	VARCHAR	50	Project Identification Code	*
StatusDate	DATETIME		End Date of Current Reporting Period	*
LogDate	DATETIME		Date of MR Change	*
WBSNUM	VARCHAR	35	WBS Element or ID	
OBSNUM	VARCHAR	50	OBS Element or ID	
ActNam	VARCHAR	16	Activity MR was applied to	
ResNam	VARCHAR	20	Resource MR was applied to	
CCREDIT	NUMERIC	16	Amount of Credit to MR	*
CBEBIT	NUMERIC	16	Amount of Debit to MR	*
CBALANCE	NUMERIC	16	Balance of MR after change	*
Narrative	TEXT		Text Description of MR change	
Document	OBJECT		Document Attachment	

Table 3.3.1

Schedule Activity Table Activity Schedule Date				
Field Name	**Field Type**	**Length**	**Description**	**Reqd.**
ProjectName	VARCHAR	50	Project Identification Code	*
StatusDate	DATETIME		Status Date	*
ActNam	VARCHAR	16	Activity Name or Code or ID	*
ActDesc	VARCHAR	255	Activity Description	
WBSNUM	VARCHAR	35	WBS Element	
OBSNUM	VARCHAR	50	OBS Element	
ActType	VARCHAR	1	Activity Type (A=Activity, S=Summary, M=Milestone, H=Hammock)	*
CURStrCon	VARCHAR	3	Current Start Constraint	
CURStrConDate	DATETIME		Current Start Constraint Date	
CURFinCon	VARCHAR	3	Current Finish Constraint	
CURFinConDate	DATETIME		Current Finish Constraint Date	
CURESDate	DATETIME		Current Early Start Date	
CUREFDate	DATETIME		Current Early Finish Date	
CURLSDate	DATETIME		Current Late Start Date	
CURLFDate	DATETIME		Current Late Finish Date	
CUR FreeFit	INT	4	Current Free Float (Days)	
CURTtlFit	INT	4	Current Total Float (Days)	
CURCrit	BOOLEAN	1	Current Critical Path	
CUROrgDur	INT	4	Current Original Duration (Days)	
CURRemDur	INT	4	Current Remaining Duration (Days)	
CURPctCmp	NUMERIC	16	Current Percent Complete	
BASStrCon	VARCHAR	3	Baseline Start Constraint	
BASStrConDate	DATETIME		Baseline Start Constraint Date	
BASFinCon	VARCHAR	3	Baseline Finish Constraint	
BASFinConDate	DATETIME		Baseline Finish Constraint Date	
BASESDate	DATETIME		Baseline Early Start Date	
BASEFDate	DATETIME		Baseline Early Finish Date	
BASLSDate	DATETIME		Baseline Late Start Date	

BASLFDate	DATETIME		Baseline Late Finish Date	
BASFreeFlt	INT	4	Baseline Free Float (Days)	
BASTtlFit	INT	4	Baseline Total Float (Days)	
BASCrit	BOOLEAN	1	Baseline Critical Path	
BASOrgDur	INT	4	Baseline Original Duration (Days)	
BASRemDur	INT	4	Baseline Remaining Duration (Days)	
BASPctCmp	NUMERIC	16	Baseline Percent	

Table 3.3.2

Schedule Relationship Table Activity Relationship Data				
Field Name	**Field Type**	**Length**	**Description**	**Reqd.**
ProjectName	VARCHAR	50	Project Identification Code	*
StatusDate	DATETIME		Status Date	*
ActNam	VARCHAR	16	Predecessor Activity Name or Code	*
ActNamRel	VARCHAR	16	Successor Activity Name or Code	*
CURRelType	VARCHAR	2	Current Relationship Type: FS = Finish to Start SS = Start to Start FF = Finish to Finish SF = Start to Finish HS = Hammock to Start HF = Hammock to Finish	*
CURLag	INT	4	Current Lag	*
BASRelType	VARCHAR	2	Baseline Relationship Type: FS = Finish to Start SS = Start to Start FF = Finish to Finish SF = Start to Finish HS = Hammock to Start HF = Hammock to Finish	*
BASLag	INT	4	Baseline Lag (Pos.)/Lead (Neg.)	*

Table 3.4.1

Earned Value Variance WBS Table Variance Analysis Data by WBS				
Field Name	**Field Type**	**Length**	**Description**	**Reqd.**
ProjectName	VARCHAR	50	Project Identification Code	*
StatusDate	DATETIME		End Date of Current Reporting Period	*
WBSNUM	VARCHAR	35	WBS Element or ID	*
CINCSV	NUMERIC	16	Incremental Schedule Variance	
CINCCV	NUMERIC	16	Incremental Cost Variance	
CINCSPI	NUMERIC	16	Incremental Schedule Performance Index	
CINCCPI	NUMERIC	16	Incremental Cost Performance Index	
CCUMSV	NUMERIC	16	Cumulative Schedule Variance	
CCUMCV	NUMERIC	16	Cumulative Cost Variance	
CCUMSPI	NUMERIC	16	Cumulative Schedule Performance Index	
CCUMCPI	NUMERIC	16	Cumulative Cost Performance Index	
CVAC	NUMERIC	16	Variance at Complete	
CEIAC1	NUMERIC	16	Independent Estimate at Complete 1	
IEACIMeth	VARCHAR	50	Method of Calculation for IEAC 1	
CEIAC2	NUMERIC	16	Independent Estimate at Complete 2	
IEAC2Meth	VARCHAR	50	Method of Calculation for IEAC 2	
CIEAC3	NUMERIC	16	Independent Estimate at Complete 3	
IEAC3Meth	VARCHAR	50	Method of Calculation for IEAC 3	
CIEAC4	NUMERIC	16	Independent Estimate at Complete 4	
IEAC4Meth	VARCHAR	50	Method of Calculation for IEAC 4	
CIEAC5	NUMERIC	16	Independent Estimate at Complete 5	
IEAC5Meth	VARCHAR	50	Method of Calculation for IEAC 5	
Narrative	TEXT		Text of Variance Analysis	
Document	OBJECT		Document Attachment - Optional	

Table 3.4.2

Earned Value Variance WBS Table Variance Analysis Data by OBS				
Field Name	**Field Type**	**Length**	**Description**	**Reqd.**
ProjectName	VARCHAR	50	Project Identification Code	*
StatusDate	DATETIME		End Date of Current Reporting Period	*
OBSNUM	VARCHAR	50	OBS Element or ID	*
CINCSV	NUMERIC	16	Incremental Schedule Variance	
CINCCV	NUMERIC	16	Incremental Cost Variance	
CINCSPI	NUMERIC	16	Incremental Schedule Performance Index	
CINCCPI	NUMERIC	16	Incremental Cost Performance Index	
CCUMSV	NUMERIC	16	Cumulative Schedule Variance	
CCUMCV	NUMERIC	16	Cumulative Cost Variance	
CCUMSPI	NUMERIC	16	Cumulative Schedule Performance Index	
CCUMCPI	NUMERIC	16	Cumulative Cost Performance Index	
CVAC	NUMERIC	16	Variance at Complete	
CEIAC1	NUMERIC	16	Independent Estimate at Complete 1	
IEACIMeth	VARCHAR	50	Method of Calculation for IEAC 1	
CEIAC2	NUMERIC	16	Independent Estimate at Complete 2	
IEAC2Meth	VARCHAR	50	Method of Calculation for IEAC 2	
CIEAC3	NUMERIC	16	Independent Estimate at Complete 3	
IEAC3Meth	VARCHAR	50	Method of Calculation for IEAC 3	
CIEAC4	NUMERIC	16	Independent Estimate at Complete 4	
IEAC4Meth	VARCHAR	50	Method of Calculation for IEAC 4	
CIEAC5	NUMERIC	16	Independent Estimate at Complete 5	
IEAC5Meth	VARCHAR	50	Method of Calculation for IEAC 5	
Narrative	TEXT		Text of Variance Analysis	
Document	OBJECT		Document Attachment - Optional	

Table 3.5

Risk Log Table Risk Log Data				
Field Name	**Field Type**	**Length**	**Description**	**Reqd.**
ProjectName	VARCHAR	50	Project Identification Code	*
StatusDate	DATETIME		End Date of Current Reporting Period	*
WBSNUM	VARCHAR	35	WBS Element or ID	
OBSNUM	VARCHAR	50	OBS Element or ID	
RiskCode	VARCHAR	50	Identifier Code for Risk Item	*
RiskType	VARCHAR	20	Type of Risk	*
Title	VARCHAR	255	Title of Risk Item	*
RiskDate	DATEIME		The date the risk was identified in the risk management system	*
RemainAmt	VARCHAR	3	Will the remaining amount be adequate for project closeout?	
Mitigation	TEXT		Risk Mitigation Plan	
Probability	NUMERIC	16	Risk Probability	
Consequence	TEXT		Risk Impact/Consequence	
Quantity	NUMERIC	16	Quantification of Risk	
UnitofMeasure	VARCHAR	50	Unit of Measure for Quantity	
Closed	BOOLEAN	1	Risk Item Open (No) or Closed (Yes)	*
Status	TEXT		Risk Status	
Narrative	TEXT		Text Description of Risk	
Document	OBJECT		Document Attachment - Optional	

Table 3.6.1

Earned Value Contractor Performance Reporting Header Table Contract and Project CPR Header Information				
Field Name	**Field Type**	**Length**	**Description**	**Req.**
ProjectName	VARCHAR	50	Project Identification Code	*
StatusDate	DATETIME		End Date of Current Reporting Period	*
ProjDsc	VARCHAR	255	Project Description	
ConNum	VARCHAR	50	Contract Number	
ConTyp	VARCHAR	4	Contract Types: CPAF – Cost Plus Award Fee CPFF – Cost Plus Fixed Fee CPIF – Cost Plus Incentive Fee CPP – Cost Plus Percentage CPE – Cost Plus Expenses FPE – Fixed Price Escalation FPI – Fixed Price Incentive FFP – Firm Fixed Price T&M – Time and Materials	
ProgType	VARCHAR	50	Program Type (RDT&E, Production, RDT&E and Production, Advanced Design, Demonstration Validation, Full Scale Development, etc)	
Security	VARCHAR	50	Security Classification (Competition Sensitive, Unclassified, Confidential, Secret, Top Secret)	
QCON	INT	4	Quantity Contracted (For Production Contracts)	
ShrNum	INT	4	Share Number	
ShrQut	INT	4	Share Quotient	
TrgtPct	NUMERIC	16	Target Fee/Percent	
Factor	INT	4	Factor for costs (100, 1000, 1000000, etc) - Applies to all tables	
CNEGCST	NUMERIC	16	Negotiated Cost	
CAUWCST	NUMERIC	16	Authorized Un-priced Work	
CTGTPRC	NUMERIC	16	Target Price	
CESTPRC	NUMERIC	16	Estimated Price	
CCONCEIL	NUMERIC	16	Contract Ceiling	
CESTCEIL	NUMERIC	16	Estimated Contract Ceiling	
CTGTCST	NUMERIC	16	Original Target Cost	
CNEGCHG	NUMERIC	16	Negotiated Contract Changes	
CCONBGT	NUMERIC	16	Contract Budget Base	
CTOTBGT	NUMERIC	16	Total Allocated Budget	
CESTEACBEST	NUMERIC	16	EAC Best Case Estimate	
CESTEACWRST	NUMERIC	16	EAC Worst Case Estimate	
CESTEACLIKE	NUMERIC	16	EAC Most Likely Estimate	

Earned Value Contractor Performance Reporting Header Table Contract and Project CPR Header Information				
Field Name	**Field Type**	**Length**	**Description**	**Req.**
ConStrDate	DATETIME		Contract Start Date	
EstCmpDate	DATETIME		Estimated Completion Date	
ConDefDate	DATETIME		Contract Definitization Date	
LstDelDate	DATETIME		Last Item Delivery Date	
ConCmpDate	DATETIME		Contract Completion Date	
MR	NUMERIC	16	Original Management Reserve	
MRLRE	NUMERIC	16	Current Management Reserve	
UB	NUMERIC	16	Original Undistributed Budget	
UBLRE	NUMERIC	16	Current Undistributed Budget	

Table 3.6.2

Earned Value Contractor Performance Reporting Format Table 1 Cumulative and Incremental Data By WBS				
Field Name	**Field Type**	**Length**	**Description**	**Req.**
ProjectName	VARCHAR	50	Project Identification Code	*
StatusDate	DATETIME		End Date of Current Reporting Period	*
WBSNUM	VARCHAR	35	WBS Element or ID	*
WBSDesc	VARCHAR	255	WBS Description	
WBSParent	VARCHAR	35	Parent WBS Element - Leave Blank for top level WBS (there should be only one top level WBS)	
WBSLevel	INT	4	Level in WBS Structure	*
CINCBCWS	NUMERIC	16	Cost Incremental Planned Value/BCWS (current period)	*
CINCBCWP	NUMERIC	16	Cost Incremental Earned Value/BCWP (current period)	*
CINCACWP	NUMERIC	16	Cost Incremental Actual Value/ACWP (current period)	*
CCUMBCWS	NUMERIC	16	Cost Cumulative Planned Value/BCWS (to date)	*
CCUMBCWP	NUMERIC	16	Cost Cumulative Earned Value/BCWP (to date)	*
CCUMACWP	NUMERIC	16	Cost Cumulative Actual Value/ACWP (to date)	*
CBAC	NUMERIC	16	Cost Budget At Complete	*
CEAC	NUMERIC	16	Cost Estimate At Complete	*
CETC	NUMERIC	16	Cost Estimate To Complete	*
CRPGVAR	NUMERIC	16	Cost Reprogramming Adjustment To Variance	
CRPGBCWS	NUMERIC	16	Cost Reprogramming Adjustment To Budget	
QINCBCWS	NUMERIC	16	Quantity Incremental Planned Value/BCWS (current period)	
QINCBCWP	NUMERIC	16	Quantity Incremental Earned Value/BCWP (current period)	
QINCACWP	NUMERIC	16	Quantity Incremental Actual Value/ACWP (current period)	
QCUMBCWS	NUMERIC	16	Quantity Cumulative Planned Value/BCWS (to date)	
QCUMBCWP	NUMERIC	16	Quantity Cumulative Earned Value/BCWP (to date)	
QCUMACWP	NUMERIC	16	Quantity Cumulative Actual Value/ACWP (to date)	
QBAC	NUMERIC	16	Quantity Budget At Complete	
QEAC	NUMERIC	16	Quantity Estimate At Complete	
QETC	NUMERIC	16	Quantity Estimate To Complete	
QRPGVAR	NUMERIC	16	Quantity Reprogramming Adjustment To Variance	
QRPGBCWS	NUMERIC	16	Quantity Reprogramming Adjustment To Budget	

Table 3.6.3

Earned Value Contractor Performance Reporting Format Table 2 Cumulative and Incremental Data By OBS				
Field Name	**Field Type**	**Length**	**Description**	**Req.**
ProjectName	VARCHAR	50	Project Identification Code	*
StatusDate	DATETIME		End Date of Current Reporting Period	*
OBSNUM	VARCHAR	50	OBS Element or ID	*
OBSDesc	VARCHAR	255	OBS Description	
OBSParent	VARCHAR	50	Parent OBS Element - Leave Blank for top level OBS (there should be only one top level OBS)	
OBSLevel	INT	4	Level in OBS Structure	*
CINCBCWS	NUMERIC	16	Cost Incremental Planned Value/BCWS (current period)	*
CINCBCWP	NUMERIC	16	Cost Incremental Earned Value/BCWP (current period)	*
CINCACWP	NUMERIC	16	Cost Incremental Actual Value/ACWP (current period)	*
CCUMBCWS	NUMERIC	16	Cost Cumulative Planned Value/BCWS (to date)	*
CCUMBCWP	NUMERIC	16	Cost Cumulative Earned Value/BCWP (to date)	*
CCUMACWP	NUMERIC	16	Cost Cumulative Actual Value/ACWP (to date)	*
CBAC	NUMERIC	16	Cost Budget At Complete	*
CEAC	NUMERIC	16	Cost Estimate At Complete	*
CETC	NUMERIC	16	Cost Estimate To Complete	*
CRPGVAR	NUMERIC	16	Cost Reprogramming Adjustment To Variance	
CRPGBCWS	NUMERIC	16	Cost Reprogramming Adjustment To Budget	
QINCBCWS	NUMERIC	16	Quantity Incremental Planned Value/BCWS (current period)	
QINCBCWP	NUMERIC	16	Quantity Incremental Earned Value/BCWP (current period)	
QINCACWP	NUMERIC	16	Quantity Incremental Actual Value/ACWP (current period)	
QCUMBCWS	NUMERIC	16	Quantity Cumulative Planned Value/BCWS (to date)	
QCUMBCWP	NUMERIC	16	Quantity Cumulative Earned Value/BCWP (to date)	
QCUMACWP	NUMERIC	16	Quantity Cumulative Actual Value/ACWP (to date)	
QBAC	NUMERIC	16	Quantity Budget At Complete	
QEAC	NUMERIC	16	Quantity Estimate At Complete	
QETC	NUMERIC	16	Quantity Estimate To Complete	
QRPGVAR	NUMERIC	16	Quantity Reprogramming Adjustment To	

Earned Value Contractor Performance Reporting Format Table 2 Cumulative and Incremental Data By OBS				
Field Name	**Field Type**	**Length**	**Description**	**Req.**
			Variance	
QRPGBCWS	NUMERIC	16	Quantity Reprogramming Adjustment To Budget	