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RCT-PXP-002

Revision 1

Project Execution Plan for the LANL RH Removal Project

Approved by: [redacted] Date: 12/29/2005

December 29, 2005

TABLE OF CONTENTS

LIST OF FIGURES

1.0 INTRODUCTION

The Project Execution Plan (PXP) for the Los Alamos National Laboratory (LANL) Remote-Handled (RH) Removal Project has been prepared under the guidelines of Washington Group International's (WGI) Project Execution Management Program, in accordance with MP1.42 WTS Project Execution Management Program and WP15-GM.01 WTS Project Execution Plans. This plan utilizes a graded approach to address key issues associated with the project.

This PXP describes the scope, schedule, and budget in Fiscal Year (FY)-2006 and 2007 for the RH Removal Project at the LANL. The project will be conducted by Washington TRU Solutions (WTS). The purpose of the PXP is to document the baseline work scope for the fiscal years and delineate the processes to be used to provide sound project management for the RH Removal Project.

The WTS provides waste characterization, packaging, operations, and transportation services to Department of Energy (DOE) generator sites that require waste characterization and disposal of RH Transuranic (TRU) waste at the Waste Isolation Pilot Plant (WIPP). WTS has experience in RH permitting, characterization and certification, and transportation of RH wastes.

WTS deployment provides the Host site with a characterization and shipping program that has been previously certified at six DOE sites. The deployment provides for mobilization, set-up and certification of the program. The TRU characterization process is highly regulated and prescriptive with requirements derived from DOE, the Nuclear Regulatory Commission (NRC), U.S. Department of Transportation (DOT), U.S. Environmental Protection Agency (EPA) and the New Mexico Environment Department (NMED).

2.0 PROJECT OVERVIEW

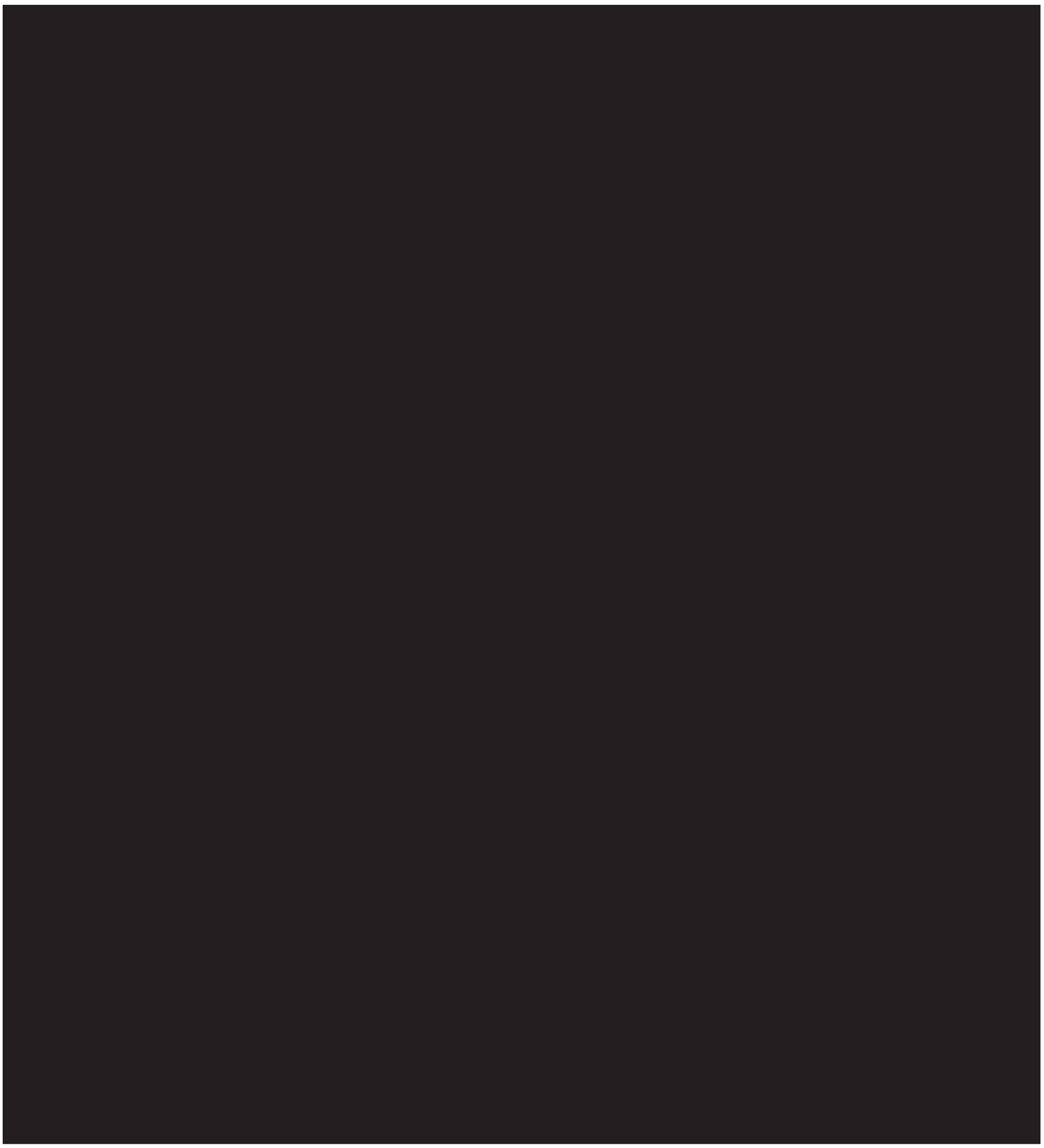
2.1 Project History

Each RH canister is approximately 10 ft. long and contains drums with waste transfer cans inside each drum. Each canister and contents weigh approximately 2,400-3,240 lbs. Dimensions of the canisters, waste contents and matrix, radiological content, original dose rates and weight are known and documented. Acceptable Knowledge (AK) information is known on the RH wastes and is described in an AK Summary Report.

The RH canisters were placed into lined shafts approximately 16 feet deep in 1993-1994. Based on a site visit and information from LANL personnel, the shafts are spaced approximately five 5 ft. apart in a State-permitted storage area regulated under the Resource Conservation Recovery Act (RCRA). In 1999-2000, the shielding lids were temporarily removed so that sample tubing could be connected to the filter vent on the top of the canisters. Headspace Gas samples were taken and analyzed for volatile organic compounds and flammable gases.

A shielded transfer cask was used to transport the canisters from the Chemistry and Metallurgy Research (CMR) Building to TA-54 and lower the canisters into the shafts. LANL personnel have stated that the cask requires major modifications before reuse.

2.2 Project Description



Other work supported by the project organization during this project will include optimization activities necessary to provide efficient and productive operations at LANL. Such activities include utilizing existing WTS and subcontractor personnel, equipment, and processes at LANL for characterization and transportation of TRU wastes. Permitting integration, AB support, and data management will also be implemented.

2.3 Project Scope of Work

The following activities will be implemented for the LANL RH Removal Project:

2.3.1 Establish Project Team to include:

- Project management
- Project engineering and operational personnel
- AK and certification personnel
- Quality support
- Environmental Safety and Health (ES&H) and radiological support
- Training

2.3.2 AB activities shall consider at a minimum the following:

- Preparation of an interim safety basis (ISB) or preliminary documented safety analysis (PDSA)
- Preparation of a safety basis addendum (SBA) to the Area G Documented Safety Analysis (DSA) to support RH canister retrieval operations at Area G
- Support development of the RH Retrieval Plan
- Support general implementation of AB documentation/requirements as necessary
- Preparation of AB documents.

2.3.3 Provide AK Summary Reports for the RH waste at LANL including, confirmation of inventory, compiling AK, assessing AK information, and resolving discrepancies associated with AK documentation.

2.3.4 Develop Program Documents and Procedures to include the following but not limited to:

- Retrieval plan and procedures
- Canister Drop Test procedure (as necessary)
- Characterization and certification operations
- RH 72B Cask loading and operational procedures
- Safety Analysis Report (SAR) update
- Job Hazards Analyses, Work Packages, and Radiological Work Permits.

2.3.5 Provide a cross-trained loading and shipping team, as appropriate, and equipment, including forklift, crane and leak testing equipment.

- Radiological personnel and instrumentation
- Forklift operator
- Crane lease procurement and operator
- Remote inspection equipment and personnel
- Leak testing personnel and equipment
- Cask loading personnel and equipment
- Receipt of consumable materials and supplies

2.3.6 Perform maintenance of equipment, as needed.

- Spare parts
- Tools
- Craft/subcontractor support.

2.3.7 Conduct waste retrieval mockup and testing, as required.

2.3.8 Perform canister drop test, if necessary.

- Nonradiological waste loading
- Drop test simulating crane rigging failure
- Analyses and reporting of test results.

2.3.9 Support the Readiness Assessment or Operational Readiness Review preparations and implementation.

2.3.10 Perform operational startup and waste retrieval, certification, waste loading, and shipment to WIPP.

2.3.11 The project scope does **NOT** include:

- Decontamination and Decommissioning (D&D) and site restoration of RH storage shafts
- Disposal of generated wastes and materials
- Environmental and radiological area monitoring equipment
- Office space and equipment at LANL
- Communications equipment and interfaces
- Utilities at LANL
- Security services
- Funding for LANL personnel, facilities, and equipment.

3.0 CONTRACT OVERVIEW

3.1 Project Goals and Objectives

The project objective is to complete the removal of the RH canisters at LANL with zero recordable injuries, meeting permit and transportation requirements and within budget and schedule. The project schedule is prepared to achieve the first shipment to WIPP in Calendar Year 2006. Cost estimates and budgets have been established for the project and DOE funding provided.

3.2 Contract Considerations

WTS operates under a cost-reimbursable contract with the DOE Carlsbad Field Office (CBFO). Funding is provided on a fiscal year basis. Increased funding to perform this project is expected from a transfer of funds from the Los Alamos Site Office (LASO) to CBFO for FY-06.

WTS earns a performance-based incentive for the first RH shipment completed in the WIPP repository.

3.3 Management Overview of the Project Execution

The RH Waste Program Manager is the Project Sponsor and is responsible for the execution of the project in accordance with the contract, WIPP procedures, and Company Policy. The direction and management of project activities are conducted in accordance with WGI/WTS Project Management Policies and approved WIPP procedures. The Project Manager will maintain an active communications program to assure DOE and WTS management and personnel are appraised of performance and other issues affecting as-planned project execution.

3.4 Project Management Authority

The Project Manager is responsible for safe and compliant execution and completing authorized scope within approved budget and schedule. Management and Operating Contractor project management authority is established to prioritize, direct, and status activities related to the project. WTS first line managers are responsible for allocations of personnel, funds and other resources described therein.

3.5 Management Philosophy

WTS manages and operates the WIPP to set the standard for achieving excellence in the performance of all activities. WTS systematically integrates safety and environmental compliance into management and work practices at all levels of the organization so that the WIPP mission is accomplished while protecting the worker, the public, and the environment. Emphasis is placed on a knowledgeable individual's

responsibility to perform their task in a safe manner, compliant with all requirements and produce quality work. Management emphasizes that employees are expected to stop work if a safety concern arises or conditions change.

3.6 Customer Identification

The CBFO is the customer for this project. The primary contacts are the Assistant Manager for Operations and the Office Director of the Office of Characterization and Transportation.

A secondary customer is the LANL Host site. The Project Manager will interface directly with the Area G Facility Manager at LANL.

Routine integration meetings and conference calls will be conducted by the Project Manager to provide integration and status on the project.

3.7 Project Location

The Project will be conducted in Technical Area 54 and Area G at LANL. The RH canister storage vaults are located adjacent to contact-handled (CH) waste storage domes constructed on an asphalt pad. Project planning and support personnel are located in Carlsbad, NM. RH site operations personnel are located at the WIPP site and will support the LANL RH Removal Project.

3.8 Third Party Organizations

Washington Regulatory and Environmental Services (WRES) will provide support to the Project. WRES is the primary interface with the regulatory groups such as NMED and EPA. In addition, DOE certification will be required to certify and ship RH waste to WIPP. CBFO will have lead authority for performing the RH Certification Audit using the CBFO Technical Assistance Contractor (CTAC).

Several subcontractors will be used on the project. Subcontracts will be issued for procurement of supplies, equipment, engineering support, remote inspection services, maintenance, and other services as identified. All subcontracts will flow down applicable safety and compliance requirements.

3.9 Partnering

There are no partnering organizations involved in this removal task.

One key aspect to the success of this project is the coordination and alignment with the LANL organization and contractors. Key interfaces with the LANL Management and Operating (M&O) and LASO will be required to successfully complete this project. Roles and responsibilities are defined in *CCP-PO-012, CCP/Los Alamos National Laboratory (LANL) Interface Document.*

3.10 Release to Proceed

The RH work scope is authorized scope under the current WTS prime contract. Approval of specific scope and funding for this project will be authorized by DOE Environmental Management (EM) through approval of a Budget Change Proposal (BCP) and a transfer of funds from LASO to CBFO. WTS will receive an authorization letter and will prepare a Budget Change Request (BCR) for CBFO Change Control Board approval.

Actual RH fieldwork activities will not be permitted until a readiness assessment or operational readiness review (ORR) is completed in compliance with Project requirements, as required.

3.11 Applicable Reference Documents

Waste Isolation Pilot Plant Hazardous Waste Facility Permit, EPA No. NM48901139088TSDF, Attachment B, *Waste Analysis Plan*

Waste Isolation Pilot Plant Hazardous Waste Facility Permit, Class 3 Permit Modification Request submitted to New Mexico Environmental Department (NMED) on April 29, 2005

DOE/CBFO-94-1012, *U.S. Department of Energy Carlsbad Field Office Quality Assurance Program Document*

DOE/CBFO-95-1122, *Carlsbad Field Office Baseline Change Control Process*

DOE/CBFO 03-3292, *CBFO Risk Management Plan*

DOE/WIPP 02-3284, *RH Packaging Operations Manual*

MP 1.42, *WTS Project Execution Management Program*

WP 13-QA3004, *Management Control Report*

WP 15-GM.01, *WTS Project Execution Plans*

WP 15-PC3605, *Proposal, Competition, Identification, Selection, Evaluation, and Award*

WP 15-PC3609, *Preparation of Purchase Requisitions*

Safety Analysis Report for the RH-TRU 72-N Waste Shipping Package

Certificate of Compliance No. 9912 for Model No. RH-TRU 72-B Package, U.S. Nuclear Regulatory Commission

4.0 PROJECT ORGANIZATION

In order to accomplish the planned scope of work successfully, WTS has established a program management organization to provide technical and administrative support for all waste characterization, operations and shipping activities at the Host sites. Effective deployment and mobilization of equipment and personnel are also important to maintain approved budgets and project schedules.

Program management includes project office support for site characterization. The role of the Project Office is to coordinate all project activities at the Host sites to be as efficient and cost effective as possible. Coordination of the AB between the project site is of prime consideration, including characterization equipment selection, safety analysis, radiation and industrial safety planning, emergency management, and environmental documentation and permitting. The functions of the Project Office include:

- Serve as lead interface with CBFO and the Host site for project activities;
- Establish the scope of work and program objectives for the project, including the requirements to be accomplished at the Host site;
- Ensure project resources and develop staffing plan;
- Provide purchasing support;
- Coordinate and maintain characterization and operations documentation and records, including plans and procedures;
- Develop and maintain a consistent framework for applicable AB implementation for the project;
- Manage Project Level Batch Data Reports and characterization data through the WIPP certification process;
- Ensure appropriate training of project personnel;
- Prepare, maintain, and update project budgets and schedules;
- Prepare monthly reports;
- Formally maintain configuration control of project scope, schedule, and budget;
- Coordinate and resolve issues for the project.

The LANL RH Removal Project will be managed by an assigned Project Manager who will work closely with the current Site Project Manager assigned for the characterization, certification, and shipping activities at LANL for (CH) wastes. The RH Project Manager functions as the primary interface and point-of-contact between WTS and the Host site on this project.

Key project personnel required for the project include:

Project Sponsor	[redacted]
Project Manager	[redacted]
Site Project Manager	[redacted]
Waste Certification Official	TBD
Operations Superintendent	[redacted]
Radiation Control Engineer	TBD
Procurement	[redacted]
QA Oversight	[redacted]
QA Programs	[redacted]
Safety Specialist	[redacted]
Cognizant Engineer	TBD
Project Engineer	[redacted]
Regulatory Permitting	[redacted]
Project Controls	[redacted]
Scheduling	[redacted]

The CBFO WBS is shown in Figure 1. The LANL RH Removal Project will be implemented under the Waste Services at Sites WBS element, based on the funding allocation from CBFO.

The project team will develop a project work breakdown to fit within WBS 1.1.8 to track RH TRU waste removal for cost and schedule performance. The developed cost accounts will be managed by the PM and matrixed functions/support (i.e. Quality) will be managed by the respective Cost Account Manager (CAM).

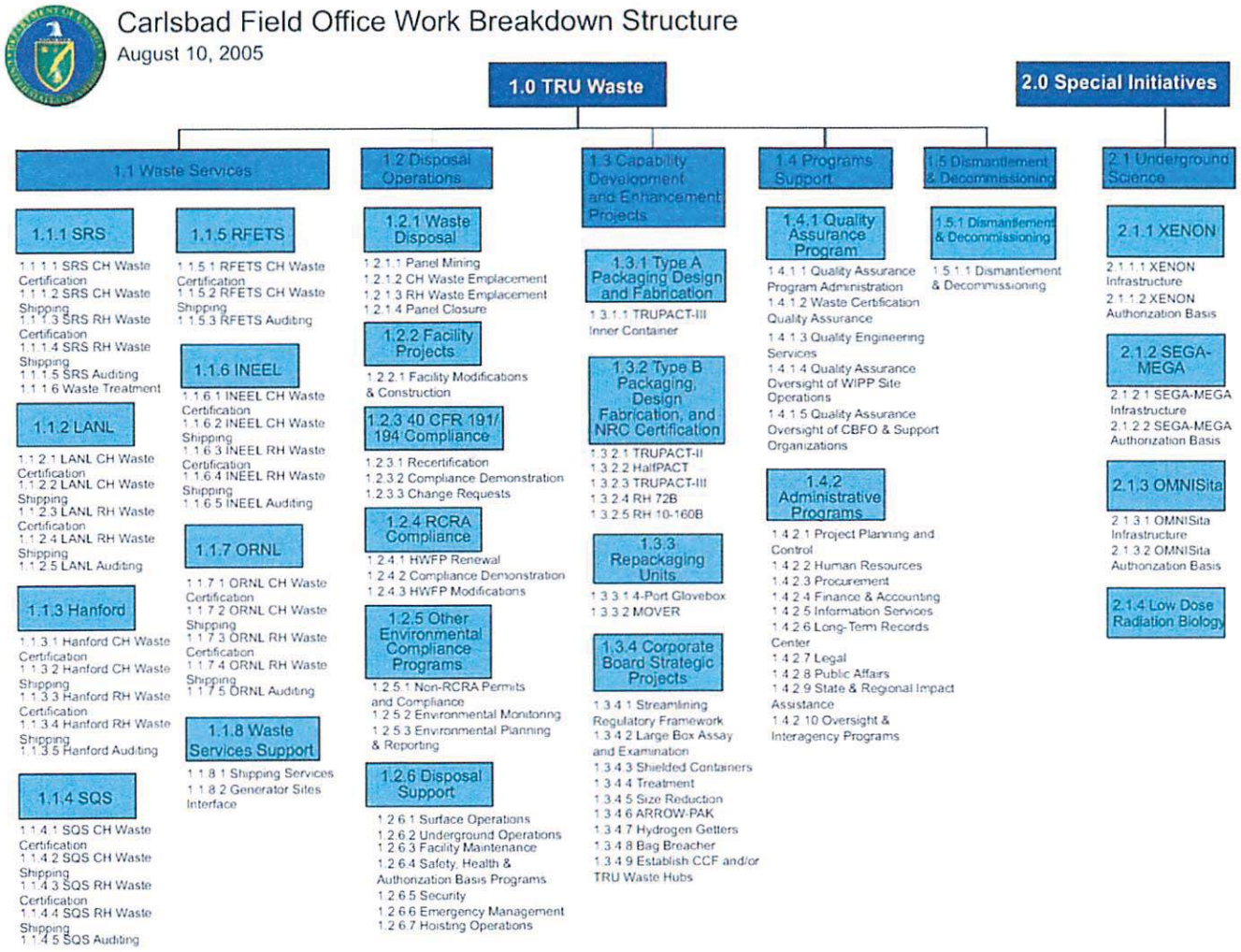


Figure 1. Carlsbad Field Office (CBFO) Work Breakdown Structure (WBS)

5.0 PROJECT ADMINISTRATION

It is WTS's responsibility to ensure that the activities of each of the primary and lower-tier subcontractors result in the timely completion of project activities, while ensuring that the site remains in compliance with the wide array of safety, environmental, security, labor, and contract requirements. WTS integrates these activities through the following key activities:

- Preparation of plans, which examine various project cost and schedule improvements as well as impact due to changing technical requirements;
- Preparation of project baselines and direction of the work planning needed to implement such plans;
- Management of cross-cutting activities, such as Environmental, Safety, Health, and Quality (ESH&Q) disciplines by development of the project requirements, establishment and tracking of program metrics, audits and assessments, and management reporting;
- Direct management of the subcontractors;
- Daily and weekly production discussions, integration and operations meetings that track project progress and identify and resolve issues. Ad hoc teams are established, as needed, to address problem areas such as characterization capacity, resource allocation, and shipping logistics.

6.0 PROJECT BUDGET & SCHEDULE

6.1 Budget

Table 1, LANL RH Removal Project Budget, provides the estimated budget for all baseline and acceleration activities planned in FY-2006 and 2007. Baseline funding represents approved funding by CBFO to maintain project scope and schedules. Cost estimates supporting this budget include funding for the major work elements and/or capital equipment.

The control (baseline) budget will be identified in the Activity Based Cost (ABC) sheets. The control (baseline) schedule is identified in the Complex-Wide Integration Tool (C-WIT). The baseline performance schedule from C-WIT will be available upon request.

6.2 Schedule

The project milestones are identified in the LANL RH Removal schedule. The schedule activities are tied to the projected date of first RH waste shipment to WIPP. The control (baseline) schedule is identified in the C-WIT.

The following are the milestones identified:

- Mobilize Personnel to Site
- AK Internally Approved
- Declare RH Operational Readiness (LANL)
- Certification Approval NMED
- Ship to WIPP

7.0 PROJECT RESOURCES

WTS is comprised of approximately 600 WTS and subcontracted technical personnel. Another 50 vendor personnel operate the leased mobile characterization systems at the various DOE sites. Additional WTS personnel may be added based on the project activities and technical requirements at any DOE site. However, any workers that are foreign nationals will require advance prior approval before being allowed on site.

WTS RH program is organized by project, with a project manager assigned to each project to ensure effective project management of all activities. WTS also maintains a Project Certification organization to perform certified data entry into the WIPP Waste Information System (WWIS) and final waste certification. Project Certification contains the Waste Certification Officials for certifying all waste characterized and shipped by WTS.

WTS will provide staffing for the planning, characterization, procurement, engineering, operations, radiation control, safety, Quality Assurance (QA) oversight, and management. Staffing requirements were considered in the cost estimate and are included in the baseline budget. Additional staffing will be required for WTS. Mobilization costs of new hires have been included in the cost estimate for WGI/WTS employees moving to Carlsbad. Per-diem costs have also been included for certain employee costs at LANL.

7.1 Training Requirements

WTS will provide training for the project team and will coordinate site-specific training required by LANL. LANL will provide the site-specific training. The training requirements will satisfy both WTS project needs and LANL site training needs. This will be identified in a training matrix or qualification card process to effectively manage and control training. This will be verified by the readiness activities.

7.2 Computer requirements

Computers will be funded and provided by the project. There are special security requirements for computers at LANL. LANL will provide WTS access to communications lines for e-mail and internet access.

7.3 Space requirements

The project team will be provided office space by LANL within a secure area of Area G. Project equipment will be staged in a secure area. LANL will provide telephones, copy machines, and fax machines. WTS will provide other standard office equipment.

7.4 Site Utilities

LANL will provide all site utilities for the project. No special utility requirements are identified at this time.

8.0 UNIQUE PROJECT CONSIDERATIONS

8.1 Host Site Relations

WTS will implement and utilize specific communication processes and methods to maintain effective and productive relations with the LANL staff. The methods include: (1) integrated planning and agreement with the Host sites; (2) formal and documented communications to ensure full understanding of the work scope; (3) routine progress update and issues notification; and (4) a team approach to work accomplishment and problem solving. It is important that all team members, including DOE, Integrating Contractors, and Subcontractors, communicate effectively and maintain a business-like approach to managing performance.

WTS will accomplish its mission following accepted project management policies and procedures, including the development and execution of this PXP. Integration activities include coordination with other DOE sites, external agencies, and the public stakeholders. Internal project integration throughout WTS also is required. Once identified, the initial project team will contact and coordinate with the LANL staff. This coordination will include site planning, information and resource exchange, and preparation of contractual and interface documents to formally identify roles and responsibilities, funding, and agency agreements. In general, the primary focus will be on effective information exchange through timely communications and formal correspondence.

8.2 Project Execution Plan (PXP) Implementation

This PXP will be issued and controlled by WTS. This plan describes the plans and objectives for FY-2006 and 2007 and establishes a formal structure for conducting work processes within the LANL RH Removal Project. This formal structure will include the following:

- Establishment of baseline Project Schedules, under Change Control within WTS
- Establishment of Baseline Cost Estimates, Personnel/Resources, and Budgets for the project under Change Control within WTS
- Development of Standardized Performance Indicators for the project for safety reporting, quality trending, management progress tracking and reporting;
- Establishment of Configuration Control for the Project;

- Utilization of an Issues Management system for action tracking and completion;
- Development of concise, standardized informational briefings for interested parties;
- Development of an agenda and establish monthly Project Reviews.

8.3 Lessons Learned Implementation

Lessons-learned from characterization work at the current active sites and operations at the WIPP site are a tremendous resource for improving the implementation on this project. Many of these lessons will be incorporated into the planning for this project. The following examples of lessons-learned information have been documented to date:

- Establish AB and procedures before mobilization of equipment to the Host site;
- Utilize standardized equipment and procedures to the maximum extent possible;
- Establish clear roles and responsibilities between WTS and the DOE Host site in the Interface Document;
- Optimize scheduling of external audits to ensure effective corrective actions and management oversight;
- Implement sound project management practices and configuration control;
- Incentivize employees and subcontractors toward the same goals;
- Evaluate the appropriate timing for mobilization at each Host site;
- Confirm Readiness Review decisions before deployment of project resources;
- Establish a strong conduct of operation culture at the start of any new project.

All new lessons learned identified throughout DOE complex will be reviewed and will be discussed with project personnel throughout the project as they are identified. This project team will prepare formal lessons learned after project completion to be shared with other RH project teams.

9.0 ENGINEERING AND DESIGN

9.1 Engineering and design

Engineering and design will be required for RH equipment specified for this project for lifting, transfer, and loading of the RH canisters into the 72B Shipping Cask.

DOE Hoisting and Rigging requirements will be adhered to and a professional engineer/competent person shall review all critical lifts as identified.

The engineer's scope of work shall include the following:

- Prepare equipment specification and packages.
- Review and approve the Contractor Lift Plan.
- Participate in the Final inspections.
- Development and approval of technical data and drawings.
- Interface with Quality Assurance and Configuration Management.
- Design tools and equipment required.
- Prepare, review, comment, and approve calculations.

9.2 Permits

The RH waste proposed changes included in a Class 3 Permit Modification Request (PMR) was submitted to NMED on April 29, 2005. Approval of this PMR is pending. This project cannot ship LANL RH canisters to WIPP until EPA has approved the characterization of the radiological component of the waste, NMED approves the final RCRA audit report, and a Waste Stream Profile Form (WSPF) has been approved for the waste stream.

The following permits, laws, regulations, standards shall be considered a part of this project whether or not they are expressly invoked. Codes, specifications, and standards shall apply to the extent applicable.

- WIPP Hazardous Waste Facility Permit NM 4890139088 – TSDF with approved modifications.

- Remote-Handled TRU Waste Characterization Program Implementation Plan, Current Version, DOE/WIPP-02-3214.
- RH TRAMPAC
- 20.4.1 NMAC - Hazardous Waste Management.
- DOE-STD-1090-2001 - DOE Standard - Hoisting and Rigging.

WIPP drawings and documents generated from this activity are the property of the DOE. Depending on contractual arrangements, design authority and documentation may remain with the supplier.

Hazard Operability studies, review of Technical Safety Requirements (TSRs), engineering and administrative controls, and Unreviewed Safety Question (USQ) evaluations will be performed in accordance with WIPP or LANL procedures, as necessary.

LANL engineering specifications and QA documentation for the RH canisters will be required.

10.0 PROCUREMENT AND MATERIALS MANAGEMENT

10.1 Subcontracting Strategy

WTS subcontracts a significant amount of the site work to vendors who own and operate the equipment at each Host site. In addition, numerous other subcontractors provide a wide array of services to support site projects, ranging from maintenance, construction, inspection and testing services, radiation control services, laboratory analyses and supplies.

It is WTS's responsibility to develop and implement an overall subcontracting strategy that provides best-in-class companies delivering project completion at the most advantageous price. Key elements of this subcontracting strategy are to:

- Assign overlapping scopes of work among the subcontractors to ensure sufficient management, technical, and resource capabilities across the site and to foster a competitive contracting environment where high-performing subcontractors are rewarded with additional tasks as the project progresses;
- Review each major subcontractor to determine whether a make-buy analysis shall be performed;
- Increase the number of fixed-price and project-specific subcontracts as project activities become better defined and more predictable;

- Increase or decrease the volume of work assigned to specific subcontractors based on their performance and on the natural evolution of project activities;

- Continue to seek specialty subcontractors that can provide a service or technology to expedite cost-effective project completion;

- Incentivize subcontractors to provide high-quality, best-cost results, while accelerating the project schedules.

10.2 Procurement Systems

The WTS purchasing system is certified by the DOE as a Certified Purchasing System. The DOE performs system reviews periodically to ensure compliance with the Federal Acquisition Regulation and DOE Acquisition Regulation.

WTS operates in accordance with DOE approved procedures implementing all aspects of procurement from sole source to source selection and vendor qualification.

Purchasing is performed in accordance with approved procedures. WTS maintains procurement staff that are Certified Purchasing Managers through the Institute of Supply Management.

10.3 List of Items Supplied by Client/Others

DOE will supply a trucking contractor for transport of the RH waste from LANL to the WIPP facility. Transportation of equipment for mobilization to LANL will be provided by WTS. DOE will supply the GFE 72.B Cask(s) and trailer(s).

The following contracts will be issued for procurement (if necessary):

- Mobile crane lease with operator
- Remote inspection services
- Radiological Control Technicians
- AB support services
- Subcontract Operators

10.4 Computer requirements

Company or Clients Purchase Documents and Terms and Conditions

Procurement documents and Terms and Conditions are supplied in accordance with approved procedures.

10.5 Receiving/Warehouse Requirements

Receiving and warehouse requirements are provided through WTS approved procedures. Receipt inspection at LANL will be performed under the certified CCP program.

10.6 Competitive and/or Sole Source Bidding Criteria

Criteria for Competitive and/or Sole Source procurements are determined by item complexity, market availability and DEAR / FAR requirements standard for certified procurement systems. Approved procedures implement those requirements and criterion for use by qualified personnel.

10.7 Technical and Commercial Bid Evaluation Requirements

Bid evaluations are conducted in accordance with approval procedures. These include WP15-PC3605, *Proposal, Competition, Identification, Selection, Evaluation, and Award,* and WP15-PC3609, *Preparation of Purchase Requisition.*

10.8 Sales Tax Requirements

Sales Tax requirements are enforced in accordance with applicable state and federal law. WTS issues tax exempt certificates to suppliers for all material and services consumed at the WIPP site or in the State of New Mexico.

11.0 PROJECT CONTROLS

The project control system seeks to be responsive to internal management requirements and provide WIPP participants with increased cost and schedule performance visibility of the accomplishment of project objectives. In addition to providing a formal integrated schedule and resource plan, the management control system provides analysis of planned versus actual performance and early detection or prediction of problems that require management attention.

In summary, the WIPP Project Control System provides for:

- Organization: Contractual efforts are established and responsibilities assigned for the work.
- Planning and Budgeting: Work is formally planned, scheduled, budgeted and authorized.
- Accounting: Cost of work and material is accumulated.
- Analysis: Planned and actual performance is compared and variances analyzed.
- Revisions and Access to Data: Estimates of final costs are developed along with methods to incorporate baseline changes in these estimates.
- Risk Management: Describes the WIPP risk identification, assessment, mitigation, and monitoring process.

The CBFO Office of Business is responsible for interpreting the requirements of the CBFO Risk Management Plan, DOE/CBFO 03-3292, as they apply to a particular program situation and for maintaining and updating this document, including coordinating changes with other project participants when appropriate.

The CBFO Baseline is actually comprised of three baselines that integrate the schedule, cost, and performance measures for the site. These baselines are as follows:

- Schedule Baseline: The Integrated Project Schedule is the primary controlled schedule from which schedule performance is measured. It is used to status and update summary level schedules. Only changes authorized through the Baseline Change Control process are incorporated into the schedule baseline.
- Cost Baseline: Contract funding levels, contained in the fiscal year program guidance letter from CBFO plus approved changes, are allocated to Cost Account Plans (CAPs), developed at Level 5 of the WBS, to form the cost baseline.
- Performance Measurement Baseline: The Performance Measurement Baseline (PMB) is the time phased budget plan against which cost and

schedule performance are measured. The resource loaded schedule activities contained in the Complex Wide Integration Tool (C-WIT) form the basis of the PMB.

The elements comprising project performance include schedule and cost performance and analysis and, performance measures outlined in Performance Incentive CBFO-SQS-1-AL-66444 *TRU Waste Certification*.

On a project of this scale, with its technical complexities and uncertain conditions, changes are inevitable. The magnitude and range of unknowns, as well as potentially changing regulatory requirements, necessitate identifying, implementing, and managing changes effectively. Cost and schedule baselines are generally controlled by the CBFO Baseline Change Control Process CBFO-95-1122, Current Version.

This PXP addresses the WTS scope, schedule, and budget for FY-2006 and 2007. Formal processes are established and documented in this PXP for communications, configuration control, and issues management. The PXP will be controlled by WTS to ensure that revisions are processed and approved by appropriate parties; that distribution is maintained, and that associated changes are maintained for record purposes.

12.0 PROJECT QUALITY PLAN

The requirements driving QA programs are specified in applicable federal and state regulations, orders, agreements, licenses, and waste shipping and acceptance criteria. QA program requirements affect every aspect of the project and emphasize planning, implementing, reporting, assessing, and improving, to ensure processes, items, or services meet the expectations of CCP customers.

The Quality Assurance Program is a performance based program designed to ensure that the 10 criteria of the Nuclear Safety Management 10 CFR 830.120, *Quality Assurance Requirements* (Rule); and the DOE Order 414.1, *Quality Assurance*, are met. The Rule applies to activities with the potential to cause radiological harm, while the Order applies to all other site activities. To meet these requirements, there is a Quality Assurance Program for the site. A Quality Assurance Project Plan (QAPjP) will be utilized for CCP activities.

Quality Assurance is a shared interdisciplinary function and responsibility. It involves management and individual contributions from all organizations responsible to produce items, perform activities, and independently verify that items and activities comply with specific requirements. Managers are responsible for knowing what requirements and standards to follow, and for determining what criteria apply to the specific activities. Others demonstrate their responsibility by following procedures and notifying the appropriate supervision with actual or potential problems and helping to resolve these problems with approved corrective actions. All employees are responsible for complying with quality requirements. In a projectized organization, it is imperative that QA personnel support the goals of the project and still maintain an independence that will help ensure appropriately implemented QA program requirements. Within the CCP projects, QA personnel are specifically trained to assess work quality on a particular project.

QA inspection services shall include receipt and source inspection services through on-site qualified inspectors. Inspections shall be performed in accordance with applicable approved WIPP procedures including:

- WP13-QA1003, *Quality Assurance Receipt / Source Inspections*
- WP13-QA1002, *Visual Inspection*
- Other approved, specific procedures are applicable to the QA controls applied.

Nonconformance may be identified in accordance with WP13-QA3004, Nonconformance report, if the subcontractor deficiency reporting system is not utilized. Nonconforming items will be segregated and dispositioned in accordance with procedures.

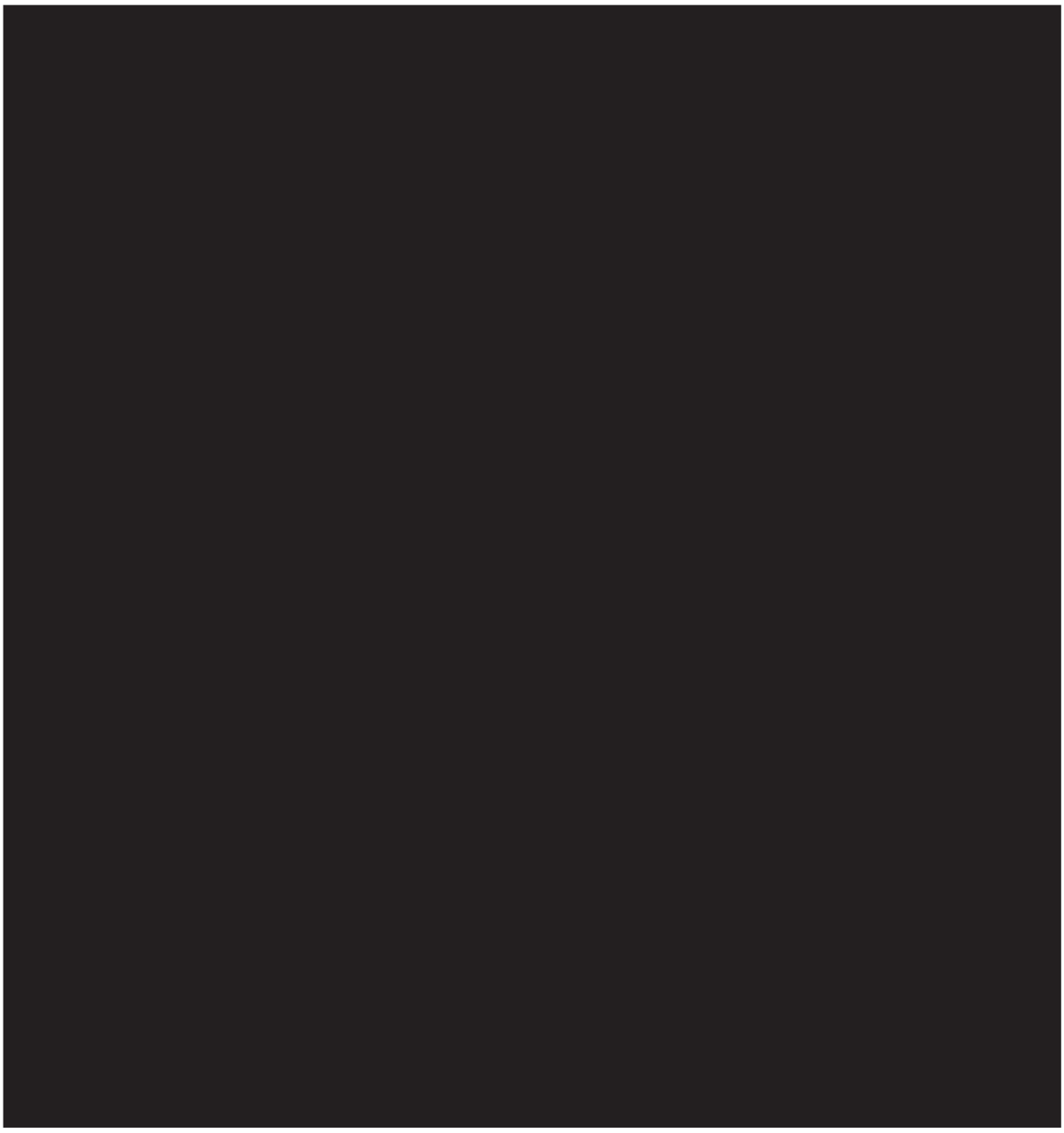
Items expected to be inspected in Carlsbad are:

- 72.B lifting yolk
- OC lid lifting tools
- IV lid alignment tools
- Grapple
- Test port tools
- Rigging equipment
- Mobile equipment

Items expected to be inspected at LANL are:

- Mobile crane and rigging
- RH Canisters

13.0 CONSTRUCTION/OPERATIONS



13.2 Mobilization Plan

Equipment and personnel will be mobilized to the LANL site in early 2006. The equipment and facilities shall be set up and assembled as directed by WTS.

Waste handling operations will be coordinated with ongoing LANL activities. Movement of people and materials will be scheduled around RH waste handling. The work site is removed from office space areas and travel ways. There will be impacts with some LANL activities due to RH waste handling operations. These impacts will be minimized by close

coordination and may involve some back shift work. WTS will train operators on proper equipment operations for canister and 72.B Cask operations, equipment operations. Much of this training will be conducted at the Carlsbad site.

LANL will provide support services. These support services include radiation monitoring instrumentation for work areas, janitorial services, temporary restrooms, laundry of reusable personal protective Equipment (PPE), emergency response and medical services.

13.3 Training

WTS is required to establish a training and documentation system. Employees shall be trained in hazard recognition, task training, emergency procedures, health and safety standards, conduct of operations and accident prevention, as required.

A training matrix will be developed with all training identified. Orientation of new WTS workers and subcontractors will be performed at LANL prior to starting work. All WTS workers will participate in an approved substance abuse program.

13.4 Hoisting and Rigging Plan

Hoisting and rigging of the RH canisters from the underground storage vaults represents a critical activity for this project. A Hoisting and Rigging Plan will be prepared and approved prior to mockup for canister retrieval in 2006. Equipment selection, inspection, and personnel training/demonstration will be included. Remote lifting and observation will be important considerations in the plan.

14.0 COMMISSIONING AND STARTUP

Following the decision to deploy the project equipment to LANL, the equipment must be prepared for mobilization and transported to LANL in an efficient and cost effective manner. Demobilization/mobilization and startup require extensive managerial coordination and logistical support both from within the Project Office and LANL. Proper packaging and preparation of equipment are required to prevent damage and to ensure the processes can be set up and calibrated in a timely manner at LANL. Key logistical functions include the following:

- Provide funding and up-front team support to the project;
- Develop and administer vendor subcontracts for services or equipment not provided by WTS or LANL;
- Develop and administer the subcontracts for development and maintenance of AK information;
- Develop and coordinate the review and approval of contractual and Interface Documents with the Host site to ensure clear roles and responsibilities and communication leads;
- Identify all site requirements for mobilization, equipment set up, calibration and startup, readiness for operation, full operations, and demobilization;
- Prepare, maintain, and update a detailed project plan, including implementation tasks and schedules;
- Manage and implement the mobilization and startup;
- Plan and conduct a Readiness Review;
- Complete resolution of all findings and declare readiness;
- Obtain startup authorization and issue Startup Notification.

15.0 SAFETY, HEALTH AND ENVIRONMENTAL COMPLIANCE

The safety targets for this project are zero lost time and zero recordable injuries. All injuries will be investigated and corrective actions taken to prevent other injuries.

Achieving successful project completion demands accelerating the full integration of safe work performance, effective safeguards and security, environmental stewardship, and quality into the management and performance of project work. WTS's primary objective is to deliver the project work scope with a best-in-class safety record. The successful integration of these compliance elements is vital for successful project completion.

Protecting the employees, the public, and the environment, while safeguarding the nuclear waste material, are key responsibilities that form the basis of operations. To help ensure project performance and compliance, standardized training of personnel in their specific project requirements and responsibilities is required.

15.1 Integrated Safety Management System

The DOE Integrated Safety Management System (ISMS) is an integrated approach to ensure that work is planned, analyzed, reviewed, approved, and executed in a safe manner and that safety is continuously improved through worker feedback. Five core functions of ISMS form the basis for working safety: 1) define the scope of work, 2) identify and analyze the hazards, 3) identify and implement controls, 4) do the work, and 5) provide feedback throughout the process.

WTS shall comply with all applicable federal and state laws and regulations and with all WTS rules and policy. This includes any applicable LANL requirements not already covered by WIPP. A Job Hazard Analysis (JHA) shall be prepared and submitted prior to each phase of work, as required. A radiation work permit (RWP) will be prepared and reviewed by WTS and LANL personnel prior to each phase of work, as required. The appropriate as low as reasonably achievable (ALARA) organization will review the RWPs. WTS will prepare the appropriate work control documents before each task. WTS will conduct a pre-job meeting prior to each task and conduct a post-job analysis for lessons learned.

Certification activities are fully detailed and implemented via WTS procedures. These procedures were developed using ISMS principles. All non-characterization activities are controlled by Host site procedures and site work controls at LANL. Although these controls were developed using ISMS principles, they are likely to be unique and different than WIPP controls.

In addition, the project has an active lessons-learned program to capitalize on experience gained from each activity and to continually improve safety performance.

15.2 Environmental Compliance

WTS will comply with governing regulations, agreements, and orders under the contract applicable to LANL. The specific criteria are defined in contractual documents (Statement of Work) and interface agreements between WTS and LANL. At a minimum, project activities have, and will continue to be, evaluated for consistency with RCRA and compliance with applicable water, air, waste, and natural resources requirements. National Environmental Policy Act (NEPA) values and requirements will be met through existing or separate decision-making processes.

All environmental, safety and health reporting requirements are included in existing site procedures. WIPP procedures currently identify the reporting requirements for occurrences and events both planned and unplanned to comply with city, state and federal requirements. Personnel involved in specific activities where these requirements could be implemented as well as general employees are trained in how to comply with existing site procedures. In addition, the existing state Hazardous Waste Facility Permit contains specific reporting requirements that are implemented through approved WIPP procedures. Approved WIPP procedures will be followed to ensure compliance with all applicable city, state, and federal laws.

Specific precautions need to be identified and followed while working in a permitted RCRA storage area at LANL, as identified by LANL.

16.0 RISK MANAGEMENT PLAN

WTS managers involved in project execution participate in the identification and assessment of program risks. They review program documents, evaluate lessons learned, and use brainstorming and their own experience to identify risks. Project risks are identified in the following areas:

- Cost and Schedule
- Technical
- Programmatic (Obtaining and utilizing resources outside the control of the program manager)
- Support
- Safety
- Regulatory/Permitting
- Site-specific (Including alternative site locations)

Once risks are identified, WTS categorizes the identified risks by probability and severity (consequences) of each event.

After risks have been identified and categorized, a risk management approach and mitigation actions are developed for each High and Medium risk. For Low risk elements not judged to require documented mitigation actions, WTS Managers assure that they are controlled through the normal management functions and work processes. Risks and mitigation actions are identified in the CBFO Risk Management Plan, which is updated annually.

In order to determine the effectiveness of the Risk Management Plan, the areas of Medium and High risks are monitored and statused during monthly program meetings with CBFO. In addition, periodic reassessments of programs are performed to determine if new areas of risk need to be identified and assessed.

Specific Risks associated with the LANL RH Removal Project include the following:

- A permit to approve disposal of RH waste at WIPP may be delayed or altered significantly. Mitigation includes close and frequent contact with the regulators to ensure all permit issues are resolved. Effective communications with WIPP Site management and Project Management must take place.

- The available information on the RH Canisters may not be sufficient to support AK and subsequent certification of the waste to WIPP requirements. Mitigation includes performing a thorough review of documentation, interviewing existing/past LANL employees, performing tests where required to fill in data gaps and conducting site reviews. Early AK determinations will be required.

- The condition of the RH Canisters may be deteriorated to prohibit retrieval methods currently planned for the project. Mitigation may include remote inspection of the canisters and review of the welding process performed.

- LANL site problems or severe weather may significantly impact project schedule. Mitigation includes close coordination with LANL management to provide timely information for contingency planning and possible task recovery. Detailed planning, including mockups and dry runs, will be required to ensure retrieval and loading operations are conducted as efficiently as possible.

- Potential personnel radiation exposure. Mitigation includes ensuring that the radioactive content of the remote handle waste is known at the time of storage. The very nature of the work will involve great care to minimize worker radiation exposure to ALARA by remote operations, reduced time and shielding where required. All radioactive work will involve detailed planning, a RWP, field dry runs and adequate radiation control oversight.

17.0 PROJECT CLOSEOUT

Retrieval, Characterization, and Transportation (RCT) is expected to continue beyond 2012 providing characterization and shipping services throughout the DOE Complex. No closeout activities are planned at this time for the certified program. However, the LANL RH Removal Project is scheduled to be completed by mid-2007. Closeout of the project, including compliant storage and audit of final certification records, will be conducted.

18.0 PROJECT PROCEDURES

The Document Control and Records organizations under RCT provide full-time, subcontracted document services to CCP. These services include completing Site Interface Agreements, Program Documents, Quality and Technical Procedures, Statements of Work, Electronic Forms, Training Qualification Cards, and participation in CCP audits.

The Document Services Support Team performs document control and technical and operating support for the CCP. The Support Team provides support by creating, modifying, and controlling documents and electronic forms in accordance with applicable requirements. Support includes:

- Coordinating reviews for documents.
- Maintaining a hard copy/master file of active controlled documents, including review and approval records.
- Maintaining the Electronic Document Management System. The system provides electronic review, approval, and distribution of controlled documents.
- Supporting audits, assessments, surveillances, and reviews as required by WTS.

RCT Records provides records management and support services to the CCP. The CCP Central Records Center is located at the Skeen Whitlock Building in Carlsbad, New Mexico. All records generated during the characterization processes are transmitted to and maintained at the Records Center. Records generated for the LANL RH Removal Project will also be stored in Carlsbad.

CCP Central Records Center personnel act as Records Custodians in support of all generator facilities. Records Inventory & Disposition Schedules (RIDS) are created and maintained annually for the CCP Project Office and all CCP generator facilities performing characterization operations. Records functions include: 1) record receipt, acknowledgment, and maintenance; 2) records scanning, tracking, and retrieval; 3) audit, assessment, and surveillance support; and 4) tracking and coordinating site-specific records training.

In addition, RCT Records maintains records custodians at remote generator facilities. These individuals support the in-process and/or completed records at each facility for transmittal to the CCP Central Records Center.