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Revision 0

Project Execution Plan for the [redacted] NDA Equipment Implementation at SRS

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TABLE OF CONTENTS

1.0 PROJECT OVERVIEW 4

2.0 CONTRACT OVERVIEW 5

3.0 PROJECT ORGANIZATION 7

4.0 PROJECT ADMINISTRATION 8

5.0 PROJECT BUDGET AND SCHEDULE 8

6.0 PROJECT RESOURCES 8

7.0 UNIQUE PROJECT CONSIDERATIONS 9

8.0 ENGINEERING AND DESIGN 9

9.0 PROCUREMENT AND MATERIALS MANAGEMENT 9

10.0 PROJECT CONTROLS 10

11.0 PROJECT QUALITY PLAN 11

12.0 CONSTRUCTION 12

13.0 COMMISSIONING AND START-UP 12

14.0 ENVIRONMENT, SAFETY, AND HEALTH 13
14.1 Integrated Safety Management System 13
14.2 Environmental Compliance 14

15.0 RISK MANAGEMENT PLAN 14

16.0 PROJECT CLOSEOUT 14

17.0 PROJECT PROCEDURES 14

LIST OF FIGURES

Figure 1. Carlsbad Field Office (CBFO) Work Breakdown Structure (WBS) 6
Figure 2. RCT Organization 7

1.0 PROJECT OVERVIEW

The U.S. Department of Energy (DOE) Carlsbad Field Office (CBFO) has provided a financial incentive for Westinghouse Transuranic (TRU) Solutions (WTS) Central Characterization Project (CCP) to assist in identifying waste from the Savannah River Site (SRS) TRU waste inventory that may be dispositioned at facilities other than the Waste Isolation Pilot Plant (WIPP). Accordingly, CCP has deployed the [redacted] equipment to SRS to assist in this task for non-drum waste containers. The [redacted] consists of mobile non-destructive assay (NDA) equipment that determines the gamma-emitting radionuclide content and fissile gram content within waste containers. The NDA results will be used to identify TRU managed waste that has less than 100 nanocuries per gram (nCi/g) TRU alpha activity concentration for potential disposal on-site at SRS or at the Nevada Test Site (NTS). This equipment is not part of the WTS CCP WIPP certified program, and as such, will not be used to certify waste for disposal at the WIPP. Waste that is greater than 100 nCi/g TRU alpha activity concentration will be re-assayed when the appropriate NDA equipment is available prior to shipment to WIPP.

CCP operates the [redacted] owned equipment under a master task contract with the [redacted] for the SRS client. The NDA results for the waste containers are submitted to the CCP Records where they are electronically scanned and posted on WTS CCP computer network. SRS personnel access the network via the internet to obtain the NDA results for evaluation.

The deployment period for the [redacted] equipment has not been finalized, but the equipment was deployed April 1, 2006 and potentially could be used as needed until the end of the CCP work scope at SRS, now estimated to conclude in FY2008. SRS communicates client needs via the SRS Subcontract Technical Representative (STR) to the CCP. The SRS-CCP Statement of Work (SOW) defines the CCP work scope at SRS.

The equipment is operated as specified in CCP-TP-139, *CCP In-Situ Object Counting System Nondestructive Assay Operating Procedure*. This procedure has been reviewed and approved for use following a thorough review by the SRS authorization basis group utilizing the Unidentified Safety Question (USQ) process. It has been noted that SRS continues to use their own ISOCS equipment on-site for NDA measurements on waste containers. In addition to the reviews by SRS, procedure CCP-TP-139 was formally reviewed and approved in accordance with CCP procedures.

The CCP Basis for Interim Operation (BIO) document is in the process of being modified to include the ISOCS equipment description and safety evaluation. However, it should be noted that the CCP-SRS SOW prescribes that CCP will operate under the SRS Authorization Basis.

The decision to commence [redacted] operations is determined by the CCP Manager based on the completion or CCP review of the following:

- Operating procedures have been approved.
- Training has been completed and documented for operating personnel.
- Equipment documentation.
- Calibration verification report has been reviewed and determined to be satisfactory by the CCP NDA Expert.
- Lower limit of detection (LLD) Report has been reviewed and determined to be satisfactory by the CCP NDA Expert.
- Total Measurement Uncertainty Report has been reviewed and determined to be satisfactory by the CCP NDA Expert.

2.0 CONTRACT OVERVIEW

The CCP will characterize and certify Contact-Handled (CH)-TRU waste at the SRS during FY2006. This work scope is expected to continue through FY2008.

The CCP organization will include characterization optimization activities necessary to provide efficient and productive operations at the SRS. Such activities include the use of the ISOCS equipment to efficiently evaluate boxed TRU managed waste for potential alternative disposal paths other than WIPP disposal. The [redacted] equipment is intended to identify boxed waste that has less than 100 nCi/g TRU alpha activity concentration and therefore, may qualify for an alternate and less expensive disposal path.

Funding for the [redacted] equipment operation is included in the CBFO Work Breakdown Structure (WBS) and is contained within the Waste Services WBS element 1.1.1 SRS (see Figure 1).

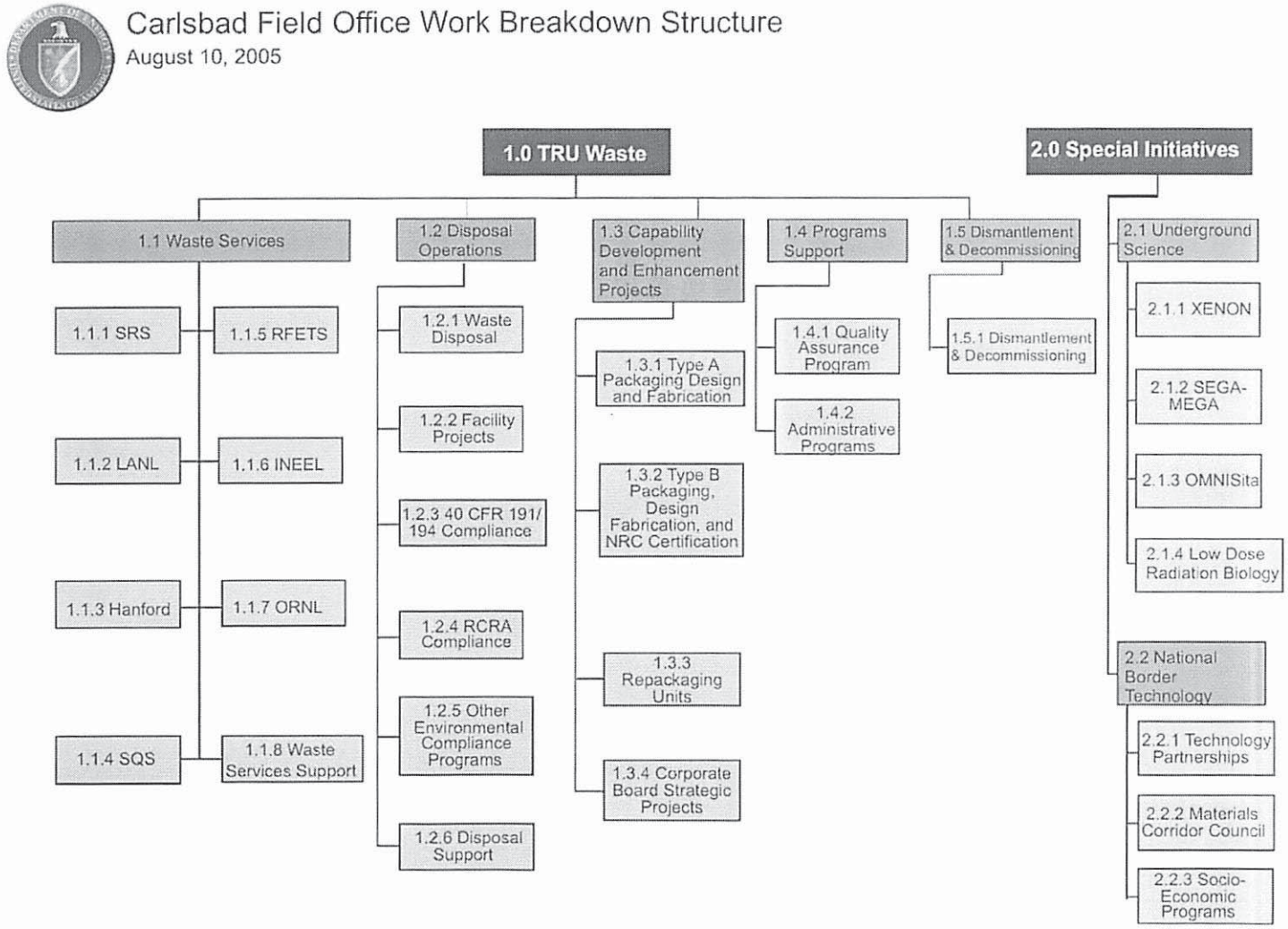

Figure 1. Carlsbad Field Office (CBFO) Work Breakdown Structure (WBS)

3.0 PROJECT ORGANIZATION

The Project Sponsor is the Assistant General Manager, Retrieval, Characterization and Transportation. The CCP Manager has the overall responsibility for TRU waste characterization at SRS, while the SRS Site Project Lead has the responsibility for the day-to-day management of the project. NDA technical assistance is provided by the CCP NDA Expert to the CCP management team. The equipment is operated and the data is reviewed by qualified [redacted] personnel.

Figure 2. [redacted]

4.0 PROJECT ADMINISTRATION

[redacted]

5.0 PROJECT BUDGET AND SCHEDULE

The deployment period for the [redacted] equipment has not been finalized, but the equipment may be used, as determined by SRS, until the end of the CCP work scope at SRS, now estimated to conclude in FY2008.

The [redacted] work scope is funded within the overall budget associated with NDA of TRU wastes at SRS and costs approximately [redacted] per week. Refer to the Contract Overview section 2.

6.0 PROJECT RESOURCES

CCP is organized by characterization project, with a project manager assigned to the SRS to ensure effective project management of all characterization activities. NDA services are provided under the CCP contract with [redacted] and include eight funded NDA positions and associated equipment. Cross training of NDA personnel for operation of IQ3 NDA equipment and the [redacted] NDA equipment has provided operational efficiency.

7.0 UNIQUE PROJECT CONSIDERATIONS

CCP will implement and utilize specific communication processes and methods to maintain effective and productive relations with the SRS host site. The methods include: (1) integrated planning and agreement with the SRS; (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.

The CCP will accomplish its mission following accepted project management policies and procedures, including the development and execution of this Project Execution Plan (PXP). Integration activities include coordination with other DOE sites, external agencies, and the public stakeholders. Internal project integration throughout CCP and WTS also is required. Once identified, the initial project team will contact and coordinate with the SRS. 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.

This PXP will be issued and controlled for the CCP.

8.0 ENGINEERING AND DESIGN

CCP utilizes WIPP site resources and/or subcontracted services for any engineering functions, as required. Since CCP has a contract with [redacted] to provide NDA equipment and services, the mobile [redacted] has been included as a contract task. No engineering design or equipment fabrication activities are planned for the project. Existing [redacted] documentation will be obtained and submitted to CCP Records.

9.0 PROCUREMENT AND MATERIALS MANAGEMENT

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 and DOE Acquisition Regulations.

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 is Certified Purchasing Managers through the Institute of Supply Management.

The contract to perform NDA utilizing the [redacted] is a task within the [redacted] master task contract with CCP.

10.0 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 [redacted] 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: Costs of work and material are 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 this document 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 (CWIT) form the basis of the PMB.

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

11.0 PROJECT QUALITY PLAN

As discussed in Section 1.0 of this PXP, the [redacted] is not part of the WTS CCP WIPP-certified program and, as such, will not be used to certify waste for disposal at the WIPP. However, CCP has applied the QA Program requirements contained in Section 4.0 of CCP-PO-002 to process development and operation of the [redacted] For example, CCP-TP-139 was reviewed and approved by the same disciplines, including Project QA; that review and approve procedures under the CCP certified program QA. Personnel performing work are trained and qualified in accordance with CCP-QP-002. The [redacted] is calibrated, operational logbooks are maintained, and radioassay data sheets and other records generated by [redacted] assay of waste containers are processed and maintained as QA records in accordance with CP-QP-008. Nonconformance Reports are written in accordance with CCP-QP-005 for identified deficiencies. Procurements associated with ISOCS will be handled in accordance with CCP-QP-015 in conjunction with the WTS purchasing system. Although no engineering or design fabrication activities are planned for the project, existing [redacted] documentation will be obtained and maintained in CCP Records. Organizational responsibilities have been established and lines of authority are described in this PXP.

The only differences from the CCP certified program are the following:

- The [redacted] will not be presented to CBFO for assessment during recertification audits at SRS (unless and until a decision is made to bring the [redacted] under the CCP certified program)

- Since the [redacted] is not being used to certify waste for disposal at WIPP, batch data reports are not compiled. Instead, individual record packages for each assayed container are assembled and reviewed by [redacted] technical personnel, including the Operator, the Technical Supervisor, and the Expert Analyst, before being made available to SRS for a determination as to potential disposal paths other than WIPP

Application of the QA program controls in Section 4.0 of CCP-PO-002 provides a high degree of assurance that [redacted] results will meet the performance objectives established in this PXP.

12.0 CONSTRUCTION

CCP performs no construction functions or activities.

13.0 COMMISSIONING AND START-UP

Following the decision to deploy the [redacted] to SRS, the equipment must be prepared for mobilization and transported to the host site 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 the SRS. Proper packaging and preparation of equipment are required to prevent damage and to ensure the characterization process can be set up and calibration verified in a timely manner at the SRS. Key logistical functions include the following:

- Provide funding and up-front team support to the project;
- Develop and administer mobile vendor subcontract;
- Communicate with the SRS to ensure the appropriate boxed waste information is available to the [redacted] personnel to support the NDA assay;
- 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 verification and startup, readiness for operation, full operations, and demobilization;
- Manage and implement the mobilization and startup plan.

14.0 ENVIRONMENT, SAFETY, AND HEALTH

The safety targets for this project are zero lost time and zero recordable injuries. In the event of an injury, it 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. CCP'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.

14.1 Integrated Safety Management System

The DOE 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.

Characterization activities are fully detailed and implemented via CCP procedures. These procedures were developed using ISMS principles.

All non-characterization activities are controlled by host site procedures and site work controls. These controls were also developed using ISMS principles.

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

14.2 Environmental Compliance

CCP will comply with governing regulations, agreements, and orders under the contract applicable to each host site. The specific criteria for each site are defined in contractual documents (Statement of Work) and interface agreements between CCP and the SRS. At a minimum, project activities have, and will continue to be, evaluated for consistency with Resource Conservation and Recovery Act (RCRA) and compliance with applicable water, air, waste, and natural resources requirements. U.S. Environmental Protection Act (EPA) values and requirements will be met through existing or separate decision-making processes.

15.0 RISK MANAGEMENT PLAN

Risk is primarily managed as a function of compliance with the operating procedures. CCP management ensures compliance to operating procedures through training, qualification, and supervision.

16.0 PROJECT CLOSEOUT

The schedule for project closeout will be determined by the SRS client and is currently projected to conclude in FY2008. Completion of the project closeout will be accomplished when the NDA assay reports for the work scope have been finalized and posted on the CCP computer network for SRS access.

17.0 PROJECT PROCEDURES

The [redacted] is operated using, CCP-TP-139.