

PART I – THE SCHEDULE

SECTION C – DESCRIPTIONS/SPECIFICATIONS/ WORK STATEMENT (PWS)

PERFORMANCE WORK STATEMENT

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SECTION C - PERFORMANCE WORK STATEMENT

C.1 REQUIREMENTS OVERVIEW

The primary mission of the U.S. Department of Energy (DOE) Carlsbad Field Office (CBFO) in Carlsbad, New Mexico is to lead the nation's transuranic (TRU) waste disposal effort. This effort consists of operating the Waste Isolation Pilot Plant (WIPP) in conformance with the WIPP Land Withdrawal Act (Public Law 102-579 as amended by Public Law 104-201), coordinating the TRU waste characterization, certification, and shipping programs at waste-generating sites and national laboratories around the nation, and serving as an international center for the study of radioactive waste repository performance and enabling the unique capabilities of the WIPP to be utilized to support basic scientific research.

CBFO is currently organized into the following primary program areas:

- TRU Waste Certification and Transportation
- Emergency, Safety, and Health
- Environmental Compliance
- Nuclear and Mining Facility Engineering and Operations
- International TRU Waste Repository and Scientific Programs
- WIPP Repository Recovery

Technical assistance required by this PWS consists of quality assurance (QA) support, technical oversight support, and administrative operations support of all CBFO program areas. QA, technical oversight, and administrative support needs and deliverables shall be determined, scheduled, and led by CBFO federal staff.

Contractor personnel shall be expected to perform the activities described in this PWS with a minimum of oversight and guidance by CBFO personnel and in compliance with all applicable CBFO procedures. The Contractor shall ensure that duties are performed in a competent, professional manner that meets established milestones and adheres to schedules as established by the CBFO. Work products are expected to be thorough, accurate, appropriately documented, and comply with established criteria. Some work products will include highly sensitive information and recommendations. The Contractor is expected to maintain the confidentiality of information as dictated by the requesting federal party and overall DOE standards of ethics and professional behavior.

The primary place of performance is at the CBFO in Carlsbad, New Mexico. Some Contractor employees shall also be required to travel to the WIPP Site located approximately 30 miles east of Carlsbad and other DOE waste generating sites and national laboratories nationwide in performance of their duties. Contractor support away from CBFO may need to meet differing WIPP and waste generator site requirements including but not limited to physical access, health monitoring, rad worker training, and HAZWOPER training and may require limited physical effort including but not limited to walking significant distances and wearing personal protective equipment (PPE) which may include respirators and anti-contamination clothing. Technical support may require exposure to radiation areas and conditions within the limits of a site's authorized radiological activities. Contractor support may require a limited number of personnel willing and able to obtain and/or maintain a DOE security clearance (Q or L).

The Contractor shall appoint a project manager to serve locally in Carlsbad, NM as the primary interface to the DOE Contracting Officer's Representative (COR) and who has supervisory control over the Contractor's employees assigned to perform work under this scope. The manager shall develop work and staffing plans for all assigned tasks and provide monthly status reports on all activities to the COR.

C.2 SCOPE OF WORK

C.2.1 Quality Assurance Support

The Contractor shall provide QA audit, surveillance, and oversight support for all CBFO program areas and provide assistance to the CBFO QA Organization in its daily activities.

Regular QA audit, surveillance, and oversight activities include, but are not limited to:

- TRU waste generating site activities for TRU waste characterization, certification, and transportation;
- WIPP Site quality-related activities, including, but not limited to, waste handling operations, WIPP Site surface and underground operations, environmental monitoring activities, and the WIPP Site QA program elements;
- National laboratory quality-related activities, including, but not limited to, assessment of environmental and other laboratory activities and operations, and assessment of national laboratory support of WIPP performance assessment modeling and data collection;
- TRU waste transportation activities, including but not limited to assessments of transportation carriers and assessment and inspection of fabrication, operation, and maintenance of NRC-licensed nuclear shipping packages and related fleet equipment; and,
- CBFO internal quality-related activities.

Assisting with CBFO QA daily activities consists of, but is not limited to, maintaining documents, managing procedures and processes, and maintaining databases necessary for the smooth functioning of the CBFO QA program.

C.2.1.1 QA Audit, Surveillance, and Oversight Support

The CBFO QA organization is responsible for QA auditing and oversight of all CBFO program areas. The CBFO QA Program is based on American Society of Mechanical Engineers (ASME) NQA-1-1989, ASME NQA-2-1990, Part 2.7, and ASME NQA-3-1989. Compliance to these standards is required by the WIPP Land Withdrawal Act (LWA) and the associated Code of Federal Regulations (CFR), 40 CFR Parts 191 and 194, and by the Hazardous Waste Facility Permit (HWFP) issued by the State of New Mexico. Additional quality assurance oversight activities are performed related to the following requirements documents:

- 10 CFR Part 71
- 10 CFR 830

- 29 CFR
- 30 CFR – MSHA
- 36 CFR Part 1200
- 40 CFR
- 49 CFR
- DOE 414.1D
- DOE Order 226.1B
- EM-QA-001, latest revision
- NQA-1-2004/2007
- NQA-1-2008/2009

The Contractor shall provide the assistance necessary to maintain the CBFO QA program. Contractor personnel will be working directly to CBFO procedures under the CBFO QA program. Contractor personnel will be expected to perform these activities with a minimum of oversight and guidance by CBFO personnel and in compliance with the following CBFO procedures:

- Management Procedure (MP) 3.1, Corrective Action Reports;
- MP 5.2, TRU Waste Site Certification/Recertification;
- MP 9.1, Management Assessment;
- MP 10.2, Surveillances;
- MP 10.3, Audits;
- Team Procedure (TP) 3.2, Trend Identification and Reporting;
- TP 10.1, Qualification of Audit Personnel and Certification of Lead Auditors; and,
- Other applicable CBFO procedures

The Contractor shall provide QA audit, surveillance, and oversight support, as needed, for all CBFO program areas outlined in section C.1. The contractor shall provide appropriately qualified and experienced QA auditors and technical experts to support all requested audits, surveillances, and oversight activities. Lead QA auditors will be expected to manage preparation of audit plans, checklists, and reports by audit team members; coordinate the logistics necessary to conduct audits at sites at remote locations across the continental U.S.; interface with regulators, the DOE, and contractor personnel; and manage large audit teams with a significant number of observers. QA auditors and technical experts will be required to support audit, surveillance, or oversight activities in a capacity as determined and scheduled by the Contractor's QA Audit and Surveillance Manager.

For each audit the Contractor shall document the results and findings in the CBFO corrective action tracking system, deliver a draft interim report upon completion of the audit, and deliver a draft final report written upon closure of findings to CBFO QA for approval and issuance. The Contractor shall verify closure of audit findings.

Depending on the audit, surveillance, or oversight activity, the Contractor shall provide QA auditors and technical experts experienced in, but not limited to, the following areas: characterization, packaging, and transportation of transuranic (TRU) and TRU-mixed waste; non-destructive assay; headspace gas analysis, real-time radiography, helium leak testing, acceptable knowledge (as defined by EPA in 40 CFR 194.2), and visual examination (VE) relevant to TRU waste; radiological material inventory determination and maintenance; radiological safety and contamination control, including dosimetry; radiological analytical laboratory practices; National Environmental Policy Act (NEPA) regulations; RCRA

regulations; environmental monitoring; maintenance of operating plant systems and components, including reliability engineering; industrial safety; hoisting and rigging; nuclear facility design, start-up, operation, maintenance, and safety; Mine Safety and Health Administration regulations; non-metal mining practices; mine ventilation system design, maintenance, and operation; personnel training and qualification; QA records and document control; data verification and validation; procurement quality; nonconformance control and corrective action processes; causal analysis; design control; supplier evaluations; commercial and quality level item identification, control, handling, storage and shipment; control of measuring and test equipment; sample control; software design, operation, maintenance, and quality assurance (SQA); statistical analysis; metallurgy and destructive and non-destructive inspection and testing; welding, including welding of stainless steel, and other non-carbon steel fabrication processes; and maintenance and operation of semi-tractors and trailers maintained and operated according to Commercial Vehicle Safety Alliance (CVSA) Structured Query Language Level VI inspection standards.

C.2.1.2 CBFO QA Organization Daily Activities Support

The Contractor shall provide daily support to the CBFO QA organization in executing its oversight duties and in support of the audits, assessments, and surveillances conducted under this contract. The CBFO QA organization maintains documents, management procedures, and processes such as databases necessary for the efficient functioning of the CBFO QA program. Typical daily CBFO QA support activities include, but are not limited to:

- Reproduction of extensive QA files and objective evidence for audits, surveillances, and corrective actions;
- Submittal of QA files to CBFO regulators;
- Maintenance of QA files until disposition through the Records Inventory and Disposition Schedule (RIDS) process;
- Maintenance of activity logs, such as audit and surveillance logs;
- Development, operation, and maintenance of databases to perform trend analysis, to track corrective action status, regulatory finding status, and management assessment finding status (CBFO Issues, Collection, and Evaluation (ICE) database);
- Preparation of reports to CBFO management;
- Development and presentation of audit training for CBFO and contract auditors, and QA refresher training for personnel designated by CBFO;
- Development and review of documents and procedures, such as the CBFO Quality Assurance Program Description (QAPD), management procedures, and draft correspondence;
- Development and implementation of corrective action plans associated with CBFO QA activities; and
- Development of responses to oversight activities by other organizational areas within CBFO.

Depending on the QA activity in need of support, the Contractor will be required to provide personnel experienced in, but not limited to, the following areas: database design, operation, maintenance, and SQA, including an expert knowledge of Structured Query Language (SQL) programming; procedure and document writing; technical editing; experienced records coordinators; and technical training.

C.2.2 Technical Specialist Support

The Contractor shall provide technical assistance necessary to support all CBFO program areas. Contractor personnel will be expected to perform the activities described in this PWS with a minimum of oversight and guidance by CBFO personnel and in compliance with all applicable procedures. Overall technical specialist support activities common across program areas include, but are not limited to:

- Physical technical oversight of operational activities at the WIPP site and TRU waste generator sites throughout the nation;
- Technical, regulatory, and program document reviews, analyses, recommendations, and evaluations;
- Participation as a technical subject matter expert (SME) in management and operational reviews and assessments;
- Participation as a technical SME in discussions and negotiations with other DOE EM sites, DOE HQ, regulatory agencies, tribal nations, state, local, and federal government, and the general public;
- Providing formal and informal verbal and written status reports of Contractor activities within CBFO program areas as needed to support program improvement and Contractor invoicing;
- Program and technical reviews and oversight activities in accordance with EM-QA-001

As a minimum, all technical consultants provided by the Contractor shall be familiar with and have a general knowledge of the following:

- WIPP HWFP
- Environmental Protection Agency (EPA) radioactive waste disposal standards (40 CFR 191 and 194)
- DOE Orders, Manuals, and Guides applicable to radioactive mixed waste management, specifically within the DOE EM complex
- Nuclear Regulatory Commission (NRC) and Department of Transportation (DOT) radioactive and hazardous waste transportation regulations
- Defense Nuclear Facilities Safety Board (DNFSB)
- Mining Safety and Health Administration (MSHA)
- EM-QA-001

The Contractor shall ensure that a Technical Specialist assigned in a functional or technical oversight role in a specific program area or activity is not utilized as a technical expert for QA audit, surveillance, or oversight activities in a manner that would create a conflict of interest.

C.2.2.1 TRU Waste Certification and Transportation Activities

TRU waste certification and transportation activities make up a vital program area within the CBFO. This program area is responsible for coordinating the TRU waste characterization, certification, and shipping programs at waste-generating sites and national laboratories around the nation.

In support of this program area, the Contractor shall provide appropriately qualified and

experienced technical personnel to routinely support the following specific TRU waste certification activities:

C.2.2.2 Central Characterization Program (CCP)

The Contractor shall provide experienced technical personnel to support CCP waste generator site oversight activities at all active TRU waste generator sites, typically divided into eastern sites and western sites. CCP support personnel shall be experienced in DOE TRU waste generator sites' waste characterization, certification, and transportation activities. On a routine basis, CCP support personnel will review CCP and waste generator site program plans, technical procedures, waste stream profiles, waste characterization and certification equipment operations and maintenance manuals, regulatory requirements, and other related documents. CCP support personnel shall also support physical on-site reviews, operational observations, and technical assessments.

C.2.2.3 Performance Demonstration Program (PDP)

The Contractor shall provide experienced technical personnel to support the PDP oversight activities. The PDP is managed within CBFO's TRU waste certification program area and is responsible for conducting independent evaluations of each TRU waste generator site's non-destructive assay (NDA) systems that are used to detect radionuclide content and concentration within the waste. Waste generator site NDA systems must pass the PDP to be certified to provide certified waste data that supports compliant waste disposal at WIPP. PDP support personnel shall schedule and implement at least one drum NDA performance demonstration and one box NDA performance demonstration for each waste generator site per year and manage the daily activities of the PDP for CBFO. Management of daily activities shall require routine direct interaction with federal and contractor personnel at waste generator and laboratory sites conducting performance demonstration operations to ensure all PDP program requirements are met. PDP activities consist of, but are not limited to, the following:

- Schedule each PDP demonstration;
- Manage analytical sample preparation and shipment to a DOE-qualified laboratory;
- Develop scoring reports of analytical data;
- Publish and distribute scoring reports;
- Evaluate and assist with corrective actions upon NDA test failures;
- Maintain accountability of PDP equipment including drums, boxes, and radioactive sources;
- Arrange shipping of PDP equipment and sources;
- Maintain all PDP program documentation;
- Develop, maintain, and provide PDP training material;
- Collect and submit applicable QA records;
- Assist with annual PDP budget development; and
- Provide regular PDP program status reports to CBFO.

In addition to the normal required number of PDP cycles for each waste generator site, the Contractor shall support supplemental cycles according to program needs as determined by CBFO.

In the past, RCRA hazardous waste analysis and waste container headspace gas sampling were

both required as part of TRU waste characterization and certification activities. In addition to NDA systems, the PDP program was responsible for conducting performance demonstrations for both RCRA hazardous waste and container headspace gas sampling systems. On March 13, 2013 the New Mexico Environment Department (NMED) approved a modification request to WIPP's HWFP that allowed the removal of these sampling requirements from the waste characterization process. Due to a radiological incident that occurred at the WIPP in February 2014, CBFO may need to restore these sampling capabilities with one or more analytical laboratories. As needed, the Contractor shall support reestablishment of these capabilities and any resulting required RCRA hazardous waste and headspace gas sampling PDP cycles. RCRA hazardous waste and headspace gas PDP cycle activities are similar to those listed above.

In addition to specific routine support of CCP and PDP activities, the Contractor shall provide, as needed, expert technical assistance in support of all other TRU waste characterization, certification, and transportation activities. Other areas of support include, but are not limited to:

- National TRU waste management strategic planning
- TRU waste inventory and database management
- TRU waste disposition determination
- NRC Type B packaging design, testing, fabrication, maintenance, and operation
- DOT 7A Type A container design, testing, fabrication, maintenance, and operation
- TRU waste transportation systems and processes, including motor carriers and equipment
- Local, Tribal, and Federal stakeholder engagement

Depending on the activity, the Contractor shall provide technical consultants experienced in, but not limited to, the following areas: radiography; non-destructive assay; headspace gas analysis; analytical chemistry; helium leak testing; acceptable knowledge (as defined by EPA in 40 CFR 194.2); visual examination (VE) and VE technique; packaging and transportation of TRU and TRU-mixed waste, including DOT regulations affecting shipment of hazardous and radioactive waste; hazardous and radioactive long-haul carrier operations; manufacturing of drums and other containers for TRU waste, over the road trailers, and equipment to support the packaging and loading of TRU waste; maintenance and operation of semi-tractors and trailers; fire and explosives science; welding, including welding of stainless steel and other non-carbon steel fabrication processes; metallurgy; and destructive and non-destructive inspection and testing, including, but not limited to, dye penetrant, ultrasonic, visual, drop test, leak test (including helium leak testing), radiography, and magnetic particle.

C.2.2.4 Emergency, Safety, and Health Activities

The Emergency, Safety, and Health program area within CBFO is responsible for the safety and health of the workforce, public, and the environment. This program area provides leadership, strategic vision, coordination, and technical oversight of activities that include, but are not limited to: nuclear safety management; fire protection; industrial health and safety; radiation protection; occupational safety; and emergency management functions.

In support of this program area, the Contractor shall provide appropriately qualified and experienced technical personnel to routinely support the following specific emergency, safety, and health activities:

C.2.2.5 Nuclear Safety

The Contractor shall provide experienced nuclear safety personnel to support WIPP site nuclear safety activities. Nuclear safety personnel shall be experienced in developing, implementing, interpreting, and enforcing DOE Documented Safety Analyses (DSA) and Technical Safety Requirements (TSR) and shall have thorough knowledge of 10 CFR 830, Subparts A and B and 10 CFR 835. On a routine basis, nuclear safety personnel shall support the following activities:

- Nuclear site safety basis document preparation.
- Review safety basis changes.
- Unresolved Safety Question (USQ) determination reviews and related activities.
- DSA preparation, development, and implementation.
- Safety evaluation reports.
- Nuclear safety analyses and independent verification review processes.
- Safety assessments and/or walk-throughs.
- Standards/Requirements Implementation Documents oversight transition.
- Technical assistance and nuclear safety advice to CBFO technical and management staff.
- DOE orders and regulations compliance support.
- Support routine oversight walk-downs and assessments with reporting of information to CBFO

C.2.2.6 Industrial Hygiene and Industrial Safety

The Contractor shall provide experienced industrial hygiene/industrial safety (IH/IS) personnel to assist in oversight of safety and health activities. IH/IS personnel shall possess certified industrial hygienist (CIH) credentials and certified safety professional (CSP) credentials, shall be experienced in developing, implementing, interpreting, and enforcing the Integrated Safety Management System (ISMS) at DOE sites, and shall have a thorough knowledge of 10 CFR 851. On a routine basis, IH/IS personnel shall support the following activities:

- Perform reviews and assessments of the management and operating (M&O) contractor's ISMS per pre-developed Criterion, Review and Approach Documents (CRADs)
- Support CBFO in developing the DOE ISMS Declaration report
- Support CBFO in ISMS improvement planning activities
- Assist CBFO in the review and comment on the M&O ISMS report and implementation documents
- Review and comment on all documents, procedures, and technical reports pertaining to ISMS implementation activities
- Provide support, including researching and retrieving reports, assessments, procedures, and other records for safety, health, and industrial hygiene support
- Participate in ISMS-related assessment and oversight activities
- Participate in evaluation of contractor Worker Safety and Health Programs in accordance with the requirements of 10 CFR 851.
- Support routine oversight walk-downs and assessments with reporting of information to CBFO.
- Support CBFO on emerging or ad hoc safety and health issues.

C.2.2.7 Health Physics and Radiological Protection

The Contractor shall provide experienced radiation protection personnel to assist in oversight of contractor radiation protection programs and activities. Personnel shall have a thorough working knowledge of 10 CFR 835. On a routine basis, personnel shall support the following activities:

- Participate in evaluation of contractor Radiation Protection Program compliance with the requirements of 10 CFR 835
- Support routine oversight walk-downs and assessments with reporting of information to CBFO
- Support CBFO on emerging or ad hoc radiation protection.

C.2.2.8 Fire Protection

The Contractor shall provide experienced fire protection personnel to assist in oversight of contractor fire protection programs and activities. On a routine basis, personnel shall support the following activities:

- Participate in Fire Hazard Analysis (FHA)/Baseline Needs Assessment (BNA) upgrades
- Support routine oversight walk-downs and assessments with reporting of information to CBFO
- Support CBFO on emerging or ad hoc fire protection issues.

C.2.2.9 Nuclear Facility Safeguards and Security

The Contractor shall provide experienced nuclear safeguards and security personnel to assist in oversight of contractor nuclear safeguards and security programs and activities. Personnel shall have a working level competency in DOE Physical Security Standards and DOE Protective Force Operations Standards and an expert level competency in security oversight practices in accordance with DOE G 226.1-1, Safeguards and Security Oversight and Assessments Implementation Guide. On a routine basis, personnel shall support the following activities:

- Participate in oversight assessments, surveillances and performance testing as part of an annual Safeguards and Security oversight plan. Oversight and assessment tasks are scheduled monthly, with quarterly progress reports and an annual survey report.
- Assist CBFO Security Officer in planning, conducting and reporting special assessments, incident investigations and review of safeguard and security plans submitted for CBFO review and approval.

In addition to the specific routine support outlined above, the Contractor shall provide, as needed, expert technical assistance in support of all other emergency, safety, and health activities. Other activities and areas of support include, but are not limited to:

- Emergency management
- Mine safety
- DOE Technical Qualification Program (TQP) management
- Local, State, and Federal stakeholder engagement

Depending on the activity, the Contractor shall provide technical consultants experienced in,

but not limited to, the following areas: safety basis document preparation and changes; USQ determination process; review and approval of hazard control; nuclear safety analyses; independent verification review processes; radiological protection; internal and external dosimetry; emergency preparedness; industrial safety and health; fire protection; Occupational Safety and Health Administration (OSHA) requirements; MSHA requirements; ISMS management; and DOE TQP management.

C.2.2.10 Environmental Compliance Activities

Activities conducted within CBFO's environmental compliance program area are critical in complying with environmental rules and regulations that govern CBFO's overall mission. Environmental compliance activities involve support of Resource Conservation and Recovery Act (RCRA) compliance, the WIPP HWFP, management and radioactive waste disposal standards (40 CFR, Parts 191 and 194), the EPA's terms and conditions of WIPP Certification, and maintaining a sufficient knowledge of the WIPP authorization basis to identify how changes to the HWFP, other permits and the EPA's terms and conditions of WIPP Certification might impact the WIPP regulatory program and activities.

In support of this program area, the Contractor shall provide appropriately qualified and experienced technical personnel to routinely support the following environmental compliance activities:

- Provide technical support for oversight of activities required by the RCRA permit at the waste generator sites and at WIPP;
- Review proposed modifications to the HWFP;
- Review proposed interpretations of language in the HWFP;
- Provide expertise in the Atomic Energy Act as it relates to mixed waste characterization and management;
- Provide expertise in applying creative solutions to unique RCRA waste management issues;
- Provide RCRA environmental regulatory interpretations;
- Conduct RCRA environmental regulatory research;
- Provide advice and strategy on NMED interaction and correspondence;
- RCRA compliance issues; and
- Develop recommendations for changes to the HWFP to make activities conducted under the permit more efficient and/or less costly, while maintaining protection of human health and the environment.

In support of WIPP compliance with 40 CFR 191, the Contractor shall prepare and review documentation for the EPA recertification of the WIPP and support monitoring programs required as part of the EPA certification. EPA certification support activities include:

- Provide technical support for oversight of activities required by terms and conditions of the WIPP Compliance Certification at both the waste generator sites and the WIPP facility;
- Review proposed changes to the Certification and supporting impact analyses;
- Review annual change reports and supporting analyses;
- Provide expertise in long-term repository performance;
- Provide support in addressing EPA and stakeholder concerns and issues related to Certification;

- Support development of planned change requests;
- Provide technical support for activities related to environmental monitoring activities;
- Support independent peer reviews; and
- Conduct environmental regulatory research.

The Contractor shall also provide compliance support of other applicable environmental laws and regulations as follows:

- Support implementation of environmental and regulatory compliance programs, including the Environmental Management System and Land Management Programs;
- Provide technical and administrative expertise for performing management assessments of environmental and regulatory compliance programs;
- Provide technical and administrative expertise in evaluating radiological air monitoring and sampling, volatile organic compound (VOC) monitoring and sampling, and hydrogen and methane monitoring and sampling, and provide periodic reports resulting from these programs;
- Provide review, advice and strategy concerning environmental, regulatory compliance, Toxic Substances Control act (TSCA), and NEPA issues as requested;
- Support environmental and regulatory permitting/permit modification activities;
- Conduct environmental regulatory research;
- Produce documents associated with every activity performed; and
- Review, analyze and/or evaluate plans, procedures and other applicable environmental compliance documents, including the Annual Site Environmental Report, the Semi-Annual VOC Monitoring Report, and the Biennial Environmental Compliance Report.

In addition to the routine support outlined above, the Contractor shall provide, as needed, expert technical assistance in support of all other environmental compliance activities.

Depending on the activity, the Contractor shall provide technical consultants experienced in, but not limited to, the following areas: RCRA regulations, management and radioactive waste disposal standards (40 Code of Federal Regulations [CFR], Parts 191 and 194), the WIPP authorization basis and HWFP, EPA's terms and conditions of WIPP Certification, the Clean Air Act, Clean Water Act, Safe Drinking Water Act, NEPA, TSCA, and applicable State of New Mexico regulations, including those intended to protect water resources.

C.2.2.11 Nuclear and Mining Facility Engineering and Operations Activities

CBFO's facility engineering, security, and operations activities are critical in supporting everyday operations of the WIPP repository. This program area is responsible for facility engineering and oversight activities including electrical and mechanical support, facility maintenance support, nuclear facility systems support, mining operations, TRU mixed waste operations, and DOE Facility Representative oversight.

In support of this program area, the Contractor shall provide appropriately qualified and experienced technical personnel to assist in all operational activities at the WIPP repository. Activities to be supported on a routine basis include, but are not limited to:

- Support production of monthly reports of activities pertaining to specific areas of oversight

- which include surveillance and assessment activities
- Support field walk downs of WIPP M&O contractor activities
 - Support production of progress reports on selected DOE activities.

In addition to the routine support outlined above, the Contractor shall provide, as needed, expert technical assistance in support of all other nuclear and mining facility engineering and operations activities. Other areas of support include, but are not limited to:

- Nuclear facility electrical and mechanical systems maintenance and operations
- Mining maintenance and operations
- TRU waste receipt and disposal operations
- Facility fire protection
- DOE Work Control programs and processes
- DOE Facility Representative activities

Depending on the activity, the Contractor shall provide technical consultants experienced in, but not limited to, the following areas: TRU waste management, emergency preparedness, conduct of operations, nuclear systems safety, confinement ventilation, mining, hoisting, maintenance programs, work control programs, mechanical systems, electrical and control systems, fire protection systems, radiological protection, mine safety, industrial safety, industrial hygiene, environmental protection, environmental compliance, OSHA requirements, MSHA requirements, and NRC nuclear facility requirements.

C.2.2.12 International TRU Waste Repository and Scientific Activities

Part of CBFO's mission is to study and advance radioactive waste repository and general radiological science on an international scale. The International TRU Waste Repository and Science program area within CBFO accomplishes this effort through support of international repository projects and programs, support of general science experiments and projects, and management of the National Analytical Management Program (NAMP).

In support of this program area, the Contractor shall provide appropriately qualified and experienced technical personnel to routinely support the following International TRU Waste Repository and Scientific activities:

C.2.2.13 International Repository Program

Routine Contractor support is required for specific international repository program activities including the following:

- Coordination of international technology cooperative development activities and international information exchanges on deep geologic waste disposal with other countries, whether they occur in Carlsbad or elsewhere
- Provide access to reputable scientific experts on technical issues related to long-lived radioactive waste disposal and scientific testing in deep geological salt formations
- Interface with Sandia and Los Alamos National Laboratory in Carlsbad, and others including overseas entities, to orchestrate the DOE input to several Nuclear Energy Agency and Salt Club technical documents being proposed and currently in preparation, including two Features Events, Processes and Scenario Development documents, a generic one and one specifically for repositories in salt.

- Coordination with DOE Office of Nuclear Energy (NE) support organizations.
- Coordinate input to several products being identified for Nuclear Energy Agency or other international organization projects in which CBFO Office of Science and International Programs (OSIP) participates.
- Support the Salt Club's purview by working with Los Alamos and Sandia in planning future exchanges, and attend scheduled exchanges.
- Obtain access to and utilize an existing commercial worldwide salt-body compendium to derive a list of potentially useful salt bodies for radioactive waste repository purposes, using internationally published screening criteria.

C.2.2.14 General Scientific Activities

Routine Contractor support is required for general scientific activities including the following:

- Provide expertise in applying creative solutions to unique radioactive waste management issues
- Provide support to integrate and coordinate waste technology development and technology transfer
- Provide advice and strategy to coordinate underground science activities.
- Recommend and support strategic planning efforts to enhance the EM mission
- Conduct regulatory-related research
- Assist CBFO in representing WIPP to external DOE offices, other agencies, academia, nuclear research community, and the private sector on nuclear facility scientific and technological issues
- Provide scientific and technical advice and guidance on repository science and compliance matters such as technology development, testing, reviews, assessments, and translation of findings into improved facility performance
- Direct technical support requires frequent meetings with CBFO OSIP staff. The CBFO OSIP preference is that these meetings take place at least every other week. The preference is for these meetings to take place in person, but other accommodations can be made to avoid travel expenditures when expedient.

C.2.2.15 National Analytical Management Program (NAMP)

Routine Contractor support is required for NAMP activities including, but not limited to, the following:

- Coordinate Environmental Response Laboratory Network submittals and correspondence between DOE, EPA, and member laboratories.
- Prepare and manage NAMP national meetings (two per year).
- Develop and manage NAMP program documentation which includes funding documents between laboratories and CBFO, and CBFO and EPA.
- Support CBFO with overall NAMP coordination.

In addition to the routine support outlined above, the Contractor shall provide, as needed, expert technical assistance in support of all other international TRU waste repository and scientific activities.

Additionally, the Contractor shall author, present, and/or publish two or more papers per year dedicated to topics across activities within the International TRU Waste Repository and Scientific program area. Papers are typically produced in cooperation with CBFO federal staff and/or other, especially international, co-authors, primarily to promote international technical cooperation but secondarily to increase awareness of CBFO international work in appropriate technical and scientific communities.

Depending on the activity, the Contractor shall provide technical consultants experienced in, but not limited to, the following areas: comprehensive working knowledge of DOE Orders, manuals, guidance documents and major programs specific to DOE's Office of Environmental Management, Office of Science, Office of Nuclear Energy, Office of Civilian Radioactive Waste Management, Office of Energy Efficiency and Renewable Energy, Office of Legacy Management, Office of Fossil Energy, and the Energy Information Administration. The Contractor shall also have a thorough knowledge of related programs that indirectly influence WIPP operations and compliance posture and planning, including: radioactive waste management programs both planned or in operation in other countries; National Nuclear Security Administration (NNSA) complex transformation initiative; NRC review, licensing and rulemaking process; radioactive LLW management industry, including Section 11.e.2 facilities under the Association for Energy Affordability (AEA) and amendments; EPA's contract laboratory program; National Research Council and the National Academy of Sciences (NAS) Board on Radioactive Waste.

C.2.2.16 WIPP Repository Recovery Activities

WIPP suspended operations on February 5, 2014, following a fire involving an underground vehicle. Nine days later, on February 14, 2014, a radiological event occurred underground, contaminating a portion of the mine primarily along the ventilation path from the location of the incident and releasing a small amount of contamination into the environment.

The Department appointed an Accident Investigation Board, which conducted and completed an investigation of the underground fire. The Accident Investigation Board published their report on March 13, 2014. Similarly, the Department appointed a second Accident Investigation Board to determine the cause of the February 14 radiological release and to develop recommendations for corrective actions. This second Accident Investigation Board is using a two-phased approach. Phase 1 focused on the response to the radioactive material release, including related exposure to aboveground workers and the response actions taken. The Phase 1 report was issued on April 24, 2014. Phase 2 of the investigation is ongoing and focuses on the cause of the radiological release.

Due to the extensive Corrective Actions of both the Accident Investigation Board reports and internal and external assessments of WIPP safety management programs, CBFO will require additional technical support during WIPP repository recovery activities. Specifically, project management support is needed for Recovery Baseline, Base Operations Baseline, National TRU Program Certification and Transportation, and two DOE capital asset projects activities. On a routine basis, project management support personnel shall support the following activities:

- Maintain presence on the WIPP site and attend meetings (at least Plan of the Day, Plan of the Week, and monthly project meetings) and observe work as necessary to track the work being performed by the M&O contractor (NWP). This will require unescorted entry into the mine and use of appropriate PPE in contaminated areas, including respirators. Compare the

work to the appropriate baseline, assess efficiency of operations, and report to the DOE Federal Project Directory (FPD).

- Conduct periodic inspections/observations of work performed by other CBFO prime contractors and national laboratories performing work for CBFO to include SNL-C, CMERC, and LANL-C to assess focus on authorized baseline work and effectiveness of approach.
- Conduct detailed and periodic examination of the M&O contractor's baselines for Recovery and Base Operations work (two separate but related baselines). This will include use of Primavera .xer files to examine links and logic, reasonableness of resource loading and examination of assess of completeness of the risk register. Examine logic, links, resource allocation, and critical path. Analyze reasonableness of approach. After initial assessment, perform re-assessments every three months with a focus on changes to the baselines to the lowest level.
- Provide review of M&O generated documents required by DOE O 413.3b to assess reasonableness, completeness, and compliance of requirements and the order. Provide comments to the FPD and participate in comment resolution. This work will be related to two capital asset projects currently approaching CD-1 in the summer of 2015. Work will extend through CD-3.

In addition to specific project management support for WIPP recovery activities, the Contractor shall provide, as needed, any other expert technical assistance in support of all WIPP repository recovery activities. Dedicated technical support required to aid in oversight activities specific to WIPP recovery activities includes, but is not limited to: mine design and construction; functional maintenance programs; construction management & inspection; confinement and mine ventilation systems support; authorization- basis support to include the WIPP DSA/TSRs; general nuclear facility safety; personnel training & qualification oversight; and technical writing and editing support.

C.2.3 Administrative Operations Support

The Contractor shall provide experienced administrative assistance necessary to support all CBFO administrative and business operations. The primary areas of administrative support include, but are not limited to:

- Executive Management assistance
- General administrative services
- Information management (e.g., FOIA, Privacy Act)
- Federal contracting activities
- Federal budget activities
- Information Technology

C.2.3.1 Executive Management Support

The Manager of the Carlsbad Field Office (CBFO) is responsible for the overall effective performance of all program areas within CBFO. The Contractor shall provide experienced personnel to support CBFO executive management in the following areas, as needed.

- Public and regulatory stakeholder communications and relations
- Executive management consulting
- Legal research and reporting

Depending on the activity, the Contractor shall provide executive management consultants experienced in, but not limited to, the following areas: RCRA permitting requirements; NEPA; WIPP repository performance assessment requirements; WIPP site operations; DOE TRU characterization and shipping activities; DOE Environmental Management (EM) complex sites and missions; senior engineering, science, and management experience; complex environmental management experience; complex problem identification and resolution experience; and FOIA and PA issues.

C.2.3.2 General Administrative Services Support

The Contractor shall provide experienced general administrative (i.e., secretarial) services support for all primary CBFO program areas. The Contractor shall provide a range of appropriately experienced personnel to support anything from general clerk duties supporting specific tasks, to professional secretarial duties supporting large numbers of technical professionals, up to executive assistant duties supporting executive management. Need and level of support shall be requested by CBFO program management through the COR and/or CO. General administrative services staff provided by the Contractor in response, shall reside among and report directly to the assigned CBFO program area.

The Contractor shall provide experienced personnel to perform general clerk duties for any CBFO program area. Common activities for general clerk level personnel shall include, but are not limited to: following clearly detailed specific procedures in completing several repetitive clerical tasks performed in a prescribed or slightly varied sequence, such as coding and filing documents in an extensive alphabetical file; opening mail; operating basic equipment (e.g., photocopier, facsimile, multi-line phone/voice mail systems); performing basic word processing and spreadsheet and database entry functions (e.g., maintaining correspondence logs, entering data into record databases, etc.); and intermittently serving as receptionist. General clerk personnel are expected to use judgment in choosing the proper procedure for each task.

The Contractor shall provide experienced personnel to perform a full cadre of administrative assistant or secretarial services for multiple federal staff members at a time for any CBFO program area. Experienced secretarial support personnel shall be required to provide principal secretarial support to an entire office of technical professionals within a program area. Secretary personnel are required to maintain a close and highly responsible relationship to the day-to-day activities of the assigned CBFO Office Director and staff, work independently with a minimum of detailed supervision and guidance, and perform various clerical and secretarial duties requiring knowledge of office routines and an understanding of the organization, programs, and procedures related to the assigned office. An intermediate to advanced working knowledge of office software programs is required. Routine assistance shall be required with development of electronic presentations, detailed electronic spreadsheets, and database management. Cross training for potentially all other areas of CBFO business operations shall be required.

The Contractor shall also provide experienced executive level administrative assistance to the CBFO executive management team. Executive level administrative assistance requires expert proficiency in all general clerk and secretarial requirements as well as the ability to work independently on projects requiring research and preparation of briefing charts and other materials.

C.2.3.3 Information Management Support

The contractor shall provide experienced technical advisement and support for all CBFO Records Management, Privacy Act (PA), and Freedom of Information Act (FOIA) activities. The Contractor shall possess thorough knowledge of DOE records management programs, methods, requirements, and media; Public Law 93-5024 governing FOIA; Public Law 93-579 governing PA; Federal Records Act of 1950; Executive Orders 12356 and 12699; policies; case law precedents applicable to FOIA and PA; guidelines applicable to federal records management; and current records/files automation, database, word processing, and spreadsheet processes and systems. Required information support activities include, but are not limited to:

- Evaluate new or modified legislation for projected impact on programs and translate the legislation into goals, actions, and services.
- Apply analytical and evaluative techniques to conduct studies, prepare reports, and develop recommendations to improve the effectiveness of federal information management.
- Coordinate requirements and assist in resolving conflicts between support programs, the field office records management program, and federal agency orders, policies, and procedures.

C.2.3.4 Contracting Support

The contractor shall provide experienced personnel to support CBFO federal contracting activities. Contract support requirements shall vary from functions performed by a federal Contract Specialist I to those performed by a Contract Specialist III as defined by the Office of Personnel Management and shall include cradle-to-grave federal acquisition and procurement functions. The Contractor shall routinely provide experienced assistance to the federal Contracting Officers. Routine contracting support activities shall include, but are not limited to:

- Setting up contract files and filing contract documents
- Reviewing and analyzing contractors' reports
- Preparing contract correspondence and documents for contracting officer signature
- Reviewing and analyzing subcontract packages
- Contract close-out activities
- Tracking deliverables
- Verifying contractors' invoices and cost reports
- Assisting in contract audit activities

C.2.3.5 Information Technology Support

The contractor shall provide direct support to the overall management and coordination of the telecommunications and IT programs at CBFO. The Contractor shall support oversight of unclassified computer security operations through expert advice and direction to CBFO supported sites and identify and isolate critical issues and problems which require management and/or technical solutions by utilizing existing techniques or developing new approaches.

The Contractor shall possess a thorough knowledge of IT hardware, systems and application software; DOE Classified and Unclassified Cyber Security Program; network (Local Area Network, Wide Area Network, Metropolitan Area Network Internet and Intranet) architectures,

topologies, functionality and potential vulnerabilities; electronic records management; management information systems and information architecture policies, procedures, orders and directives sufficient to ensure proper direction of those functions. The Contractor shall routinely provide expert advice and assistance to a federal Chief Technology Officer and federal IT Specialist in the following areas for approximately 80 federal staff members:

- Advanced IT principles, concepts, methods, standards, and practices sufficient to provide for the protection of government interests.
- IT functions within and across organizational missions, functions, programs, internal operations, and administrative policies and procedures of the federal government, DOE, and CBFO.
- Application of IT developments and emerging technologies to business processes to design, develop and manage systems that meet current and future business requirements.
- Interrelationships of multiple IT specialties and the DOE IT architecture in order to develop solutions for integration/interoperability issues.
- Federal information system security protocols to ensure coordination and/or collaboration on security activities.
- A total infrastructure protection environment sufficient to integrate information systems security with other security disciplines.
- Network architecture and network systems, to include end-to-end systems performance monitoring sufficient to plan, design, develop, manage, and enhance highly efficient network systems that respond to business requirements.

In addition to the administrative operations support outlined in C.2.3.1 through C.2.3.5, the Contractor shall provide, as needed, experienced assistance in support of all other CBFO administrative activities. Other areas of support include, but are not limited to:

- Program planning
- Budget
- Procurement
- Property Management
- Human resources