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C.1 BACKGROUND

During the last 40 years, the Department of Energy (DOE) and its predecessor agencies have generated, transported, received, stored, and reprocessed spent nuclear fuel (SNF) at facilities in the DOE's nationwide complex. This SNF was generated from various sources, including: the DOE's production reactors; Naval Nuclear Propulsion Program reactors; government, university, and other research and test reactors; special-case commercial power reactors; and foreign research reactors.

In 1992, the DOE ceased reprocessing operations. Approximately 265 MTHM of SNF resides at the Idaho National Engineering and Environmental Laboratory (INEEL). The majority of this SNF is in wet storage over the Snake River Aquifer, a major water source for this region. A Settlement Agreement (Agreement) (See Section J, Attachment J-L) between the DOE, the U.S. Navy and the State of Idaho, dated October 17, 1995 requires the transfer and dry storage of certain fuels until they are removed from the State of Idaho by January 1, 2035. This contract is primarily concerned with fuel from Peach Bottom and Shippingport reactors, and with TRIGA fuel from various sources.

The INEEL site occupies 890 square miles in southeast Idaho. The site consists of eight primary facility areas situated on an expanse of otherwise undeveloped, high-desert terrain. Buildings and structures are clustered within these primary facility areas, which are typically less than a few square miles in size and separated from each other by miles of mostly undeveloped land. Except for the Naval Reactors Facility and Argonne National Laboratory-West, all of the primary facility areas are under the direction of the DOE Idaho Operations Office. The Naval Reactors Facility, is under the supervision of DOE's Office of Naval Reactors and Argonne National Laboratory-West is under the direction of DOE's Chicago Operations Office. Several INEEL laboratories and administrative offices are located in the city of Idaho Falls.

C.2 STATEMENT OF WORK

The Contractor shall place and maintain selected Department of Energy (DOE)-owned Spent Nuclear Fuel (SNF) at the INEEL in dry storage units, in accordance with all requirements and terms and conditions of this Contract including the General Specifications attached to this Section C. The project consists of four phases with an option to require additional fuel transfer and storage, and an option for the Contractor to perform Decontamination and Decommissioning:

a. Phase IA "DESIGN": The Contractor shall design the facilities, systems, and prepare the NRC license and other permits application(s) and obtain an acceptance review of the

application by the NRC. The Contractor is responsible for all associated permit and NRC fees. The Contractor shall also provide a conceptual design only for a rail-based transportation system for unrestricted shipment of the packaged SNF that is fully compatible with the storage and handling system. Neither fabrication nor licensing of this separate transportation system is contained within the scope of this procurement.

b. Phase IB "LICENSING": The Contractor shall actively seek and support the NRC license and permit application(s) process and review and incorporate required changes into the final design, to ultimately obtain a NRC license. The contractor is responsible for all interfaces and communications with the permitting agencies and the NRC and all associated permit and NRC review fees.

c. Phase II "CONSTRUCTION AND STARTUP": c. The Phase II scope is considered complete upon conclusion of all fabrication, construction and Start-up of the Dry Transfer Facility and Independent Spent Fuel Storage Installation (excluding individual storage units if a modular storage concept is employed) and all associated facility infrastructure. The facility Start-up includes the Contractor's receipt of formal notification of the NRC's approval to begin nuclear operations, and the successful loading of an IFSFI storage unit with a minimum of two standard canisters of Peach Bottom Fuel. DOE will deliver 36 Peach Bottom Fuel Handling Units (FHU) to the facility for processing under Phase II. The Contractor may request additional Peach Bottom fuel deliveries if necessary to support their Phase 2 processing scheme. The Peach Bottom FHUs will be received and processed in the DTF, demonstrating all standard-processing operations. Two standard canisters must be fully loaded with Peach Bottom Fuel and placed in the ISFSI storage unit as part of Phase II. In the event the Contractor has requested more than 36 FHUs delivered to support Start-up, Phase II will be judged complete when the second fully loaded standard canister is in place in the ISFSI."

d. Phase III "FUEL TRANSFER AND STORAGE": The Contractor shall perform Fuel Handling, Packaging, and Storage Operations for the loading of SNF into approved storage units, and placement into and operation of the ISFSI.

e. Phase IV "POST STORAGE OPERATIONS" (Optional): At the Government's option, the Contractor shall operate and maintain the Dry Transfer Facility and the ISFSI following completion of Phase III. In doing so, the Contractor shall operate and maintain these facilities in a manner consistent with the requirements of this contract, the NRC License, and all other local, state an federal requirements, including security, quality assurance, and applicable permit requirements.

C.3 RESOURCES

The Contractor shall provide all resources, i.e., facilities, materials, labor, and equipment, necessary to fulfill the requirements of this Contract, except for delivery of the SNF as

identified in the Shipping Cask and Fuel Receipt Schedule, Attachment D of the General Specifications, or otherwise specified in the Contract.

C.4 MEETINGS/CONTRACTOR INTERFACE

a. Status Meetings

(1) PHASE I: Meetings during phase I will be at DOE facilities until such time as the Contractor has set up offices in the vicinity of the INEEL. Meetings will be held monthly.

(2) PHASES II and III: Meetings, generally held in a conference room provided by the DOE, will be held, at a minimum, monthly. The Contractor shall make arrangements to have company representatives and, as necessary, principal teaming and/or subcontractors present. Representatives shall have authority to make commitments and act for their firms.

(3) Representatives at these meetings shall be prepared to present a general status of the project and to discuss and resolve any potential problems, concerns, submittal status, and construction progress. The length of each meeting will be determined by issues to be discussed.

(4) Contractor agrees to be responsible for taking meeting minutes at all status meetings and distribute the minutes to all attendees within ten calendar days following each meeting. A statement must appear on all minutes allowing attendees the opportunity to clarify or correct statements in the minutes. An example of this statement is:

"To the best of my knowledge and belief, these minutes are an accurate reflection of the statements made during the subject meeting. Any claims or errors, omissions, or misinterpretations must be submitted in writing and discussed at the next meeting. If no further meeting is to be held, the written statements will be published as an addendum to the last minutes published. Failure to make notification by the next meeting (or within ten calendar days of the receipt of the minutes when no further meeting has been scheduled) will constitute acceptance of these minutes as written."

b. Safety Meetings

During phase II, Contractor's Construction Manager shall attend DOE's monthly safety meeting. Applicable safety items will be discussed and training provided as necessary.

C.5 OPERATIONAL EXCELLENCE

The INEEL is presently working intensely on operational excellence and institutionalizing Integrated Safety Management Systems (ISMS). The Contractor shall promptly establish and promulgate a program that instills in its workforce an ethic for operational excellence that embraces the highest of industry and government standards. Safety is an integral way of doing business, and shall be instilled in all activities (both nuclear and non-nuclear) including work planning, design, construction, operations, maintenance, and decommissioning. Emphasis shall be placed on occupational safety as it pertains to these activities. The program for operational excellence shall establish an underlying philosophy and mindset for all Contractor employees that includes the philosophy that compliance with regulations and standards shall be complete while performing the contract on time, at a reasonable cost, while protecting human health and the environment. The operational excellence program shall include a focus on the requisite rigor and discipline in all aspects of Contractor activities and, in particular, holding management and staff accountable. A graded approach is encouraged; however, it shall neither be used by the Contractor nor accepted by the DOE as an excuse for substandard performance or results.

C.6 PROTECTION OF WORKERS, THE PUBLIC, AND THE ENVIRONMENT

Protection of workers, the public, and the environment are fundamental responsibilities of the Contractor. The Contractor's ES&H program shall be operated as an integral and visible part of how the Contractor conducts business, including prioritizing work planning and execution and allocating resources to address programmatic and operational considerations, and shall address all hazards for all affected facilities, operations, and work, both nuclear and non-nuclear.

The Contractor shall:

(1) Perform all activities in compliance with applicable health, safety and environmental laws, orders, and regulations, and governing agreements and permits executed with regulatory and oversight government organizations. To the extent permitted by the underlying requirements, the Contractor shall use appropriate national consensus standards to meet these obligations.

(2) Take necessary actions to preclude serious injuries and fatalities and keep worker exposures and environmental releases as low as reasonably achievable below established limits.

(3) Minimize the generation of all waste to reduce current costs and reduce the future mortgage associated with waste streams.

(4) Establish clear ES&H priorities and manage work in proactive ways that maintain or increase protection to the environment and public and worker safety and health.

(5) Implement an Integrated Safety Management System (ISMS) conforming to 48 CFR 970.5204-2, "Integration of Environment, Safety, and Health into Work Planning and Execution," to include implementation of the five core functions and seven guiding principles. The ISMS shall include "worker involvement" as an eighth guiding principle. All Contractor ES&H programs shall support the ISMS.

(6) Ensure that ISMS program implementation and changes are made without adverse ES&H consequences, while maintaining the requisite level of rigor and discipline in work planning and execution.

(7) Institutionalize ISMS in safety manuals, design and work control processes, conduct of operations and maintenance, and work planning and execution.

(8) Establish clear ES&H roles, responsibilities, and authorities of line managers. The senior management official shall hold line managers, including direct reports, accountable for implementing necessary controls for safe performance of work in their area of responsibility.

(9) Establish an organization that supports effective ES&H management by ensuring appropriate levels of ES&H staffing and competence at every level.

(10) Ensure appropriate hazard analysis for all work performed; and that employees provide input into work planning and procedures, execution and control, and identification and mitigation of workplace hazards. The Contractor shall ensure that employees identify concerns prior to the start of work.

(11) Ensure that appropriate safety requirements and hazard controls are integrated into work planning; work packages and control documents, and work execution.

(12) Establish appropriate performance measures to monitor the effectiveness and the implementation of ES&H programs.

(13) Establish project wide systems for feedback and improvement and lessons learned to evaluate the effectiveness of the ISMS; identify, disclose, track and mitigate ES&H deficiencies and compliance findings in a timely manner; prioritize and carry out corrective actions in a timely manner that address root causes, prevent recurrence, and maintain protection of workers, public and the environment. These systems must include lessons learned and additional relevant information from other DOE sites and related industries.

(14) Establish systems to track and address environmental and other compliance issues (e.g., permitting, environmental reporting, National Environmental Policy Act, NRC licensing commitments and so forth).

(15) Ensure that employees are trained, qualified and equipped to safely perform the work in accordance with NRC requirements for nuclear safety and applicable DOE policies and procedures for non-nuclear areas.

(16) Consider ES&H performance as an evaluation factor in the selection of subcontractors performing work at the site.

(17) Flow ES&H requirements into subcontracts, and other agreements with organizations performing work in support of the contract and ensure that work under these subcontracts and agreements is safely executed.

(18) Perform all radiological work in compliance with applicable NRC requirements and license conditions.

(19) Develop, submit for DOE information, and maintain (when required by law, order, regulation, or direction), an Authorization Basis for the operation of each facility under this contract. The Authorization Basis shall consist of the Contractor's response to applicable federal and state statutes and regulations and the standards necessary to maintain protection of workers, public, and the environment.

(20) Implement formal programs for Conduct of Operations and Conduct of Maintenance that support the ISMS.

(21) The Contractor (including its subcontractors and partners) shall promptly evaluate, report to DOE and external regulators, and resolve any non-compliance with applicable ES&H requirements and the ISMS.

C.7 QUALITY REQUIREMENTS

Perform all work at INEEL to the requirements of the required quality assurance program as provided in 10 CFR 20 "Standards for Protection Against Radiation," 10 CFR 21 "Reporting of Defects and Noncompliance" 10 CFR 71 "Packaging and Transportation of Radioactive Material," 10 CFR 72 "Licensing Requirements for the Independent Storage of Spent Nuclear Fuel and High-Level Radioactive Waste," and associated referenced regulations, and ASME NQA-1.

Attachment: General Specification for Spent Nuclear Fuel Dry Storage Project