

**STATEMENT OF WORK
OAK RIDGE NATIONAL LABORATORY
OPERATED BY
UT-BATTELLE
Basic Ordering Agreement:
Safety and Health Technical Support**

BACKGROUND

The Department of Energy (DOE) oversees advanced research and development programs through its management and operating contractors. UT-Battelle, LLC, manages and operates the Oak Ridge National Laboratory (ORNL) for DOE. ORNL has highly specialized, and often unique, scientific, and information technology capabilities available to solve national level problems including critical national technology challenges. ORNL's highly specialized multi-disciplinary and comprehensive approaches offer solutions that are not available elsewhere in the public or private sectors. In the course of these activities, Oak Ridge National Laboratory (ORNL) provides and conducts safety and health, technical, nuclear safety, security, engineering, analytical, and technical support to a multitude of sponsors. A professional, technical services management firm is necessary to support requirements of programs ORNL supports.

OBJECTIVE

The Seller shall provide specialized technical assistance, as required, to Oak Ridge National Laboratory, managed by UT-Battelle, by providing technical assistance for numerous projects. The Seller may perform analyses and evaluations and develop technical reports. The Seller may work under the direction of a senior ORNL staff member supporting a multitude of projects/programs on a task order basis. Selected tasks can be expected to be performed under fixed price commitments based on specific task orders or milestone completion while others may be more suitable for level-of-effort. This may include any or all of the following elements identified below as appropriate to the specific task. Detailed task descriptions identifying scope, deliverables, period-of-performance, and fixed-price/milestone completion/level-of-effort will be generated on a task by task basis.

SCOPE

The period of performance for this Basic Ordering Agreement is intended to span from May 1, 2015 – December 31, 2019.

A. Safety, Health and Security

The Seller may provide scientific, technical, engineering and administrative assistance and support in the following areas, but not limited to:

Technical support to the development of new or revised rules, regulations and implementation guides, technical evaluations, assessments, program development and implementation, health studies, worker safety and health, technical and management training, training development, delivery, and evaluation, technical and management presentation development, records management, record/document analysis, developing and analyzing of safety performance indicators and preparing safety performance analysis reports, developing complex-wide and site-specific analyses to identify vulnerabilities, safety

performance trends, and emerging issues of interest, hazard characterization, hazard and risk assessment/analysis safety analysis, nuclear and facility safety, homeland security, safeguards and security, vulnerability assessment, consequence analysis, technology evaluation, conduct of operations, operational readiness review.

B. Nuclear Safety - Nuclear Safety Basis & Facility Design

The Seller may provide scientific, technical, engineering and administrative assistance and support in the following areas, but not limited to:

- Analysis and review of nuclear facilities. This includes DOE and commercial nuclear safety policy, requirements, and guidance for safety bases, facility nuclear safety design, and criticality safety as defined in 10 Code of Federal Regulations (CFR) Part 830 subpart B and supporting guidance and standards, and DOE nuclear facility safety Order and associated guides and standards.
- Assistance resource for interpretation and guidance on existing and emerging nuclear safety requirements including requirements related to criticality safety, authorization basis, and safety systems.
- Evaluating the effectiveness of the implementation of nuclear safety management programs and fire protection and natural phenomena hazard control requirements.

C. Specialized and Cross-Cutting Technical Support

The Seller may provide scientific, technical, engineering and administrative assistance and support in the following areas, but not limited to:

- Provide technical support, including analysis of cross-cutting issues and rapid response to issues and questions raised by senior management or other stakeholders.
- Outreach and awareness, including national and international scientific working groups with multi-language and multi-national participants.
- Nuclear quality assurance.
- Provide meeting facilities, assistance in preparation of presentations and conducting and hosting workshops, editing, graphics and reproduction services, and other administrative support necessary to effectively support the issuance of reports on the respective assistance visits conducted in accordance with tasks issued under this contract.
- Coordinate program merit reviews by providing expertise to identify and coordinate volunteer and paid scientists from many disciplines in the structured review of programs and projects. Work with sponsor to identify suitable reviewers. Arrange meetings of the reviewers; prepare a written record of proceedings; provide a summary of comments from each reviewer; and prepare reports as required.
- Technical support to nuclear material management, reporting and accountability.

D. Engineering and Technical Reviews

The objective of this task is to provide technical support to assess engineering and the adequacy of technical work and performance in the execution of major capital and operating projects. The Seller shall demonstrate an understanding of existing Project technical issues and experiences with resolution of these issues. This includes an understanding of the DOE O 413.3B, *Program and Project Management for the Acquisition of Capital Assets*; DOE-STD-1189, *Integration of Safety into the Design Process*; and various design engineering processes.

The Seller shall have an understanding of the Critical Decision process and identify the critical technical elements for each phase. The Seller shall develop documents used to evaluate and improve projects and operations, including a capability to develop and maintain standard review plans and/or criteria, review and approach documents. The Seller shall demonstrate the role of Design Authority and the roles and responsibilities for DOE and Sellers. The Seller must provide timely and effective analysis and recommendations on issues pertaining to:

- Resolving technical issues related to design, construction, and operations.
- Conducting Operational Readiness Reviews and Readiness Assessments.
- Development of training relating to the conduct of engineering.
- Support various initiatives such as the seismic, deposition velocity and accident analysis approaches, erosion and corrosion issues, and others.

E. Preparing Reports and Presentations

Preparing reports and presentation of relevant information may include a variety of formats and visualization techniques to synthesize materials and communicate the results to the customer/decision-maker as appropriate to the specific task. The Seller may provide assistance with analysis and evaluation, including algorithms and search methodology utilized to prepare a series of topical/technical reports. Additionally, provide assistance with the evaluation and analysis of data and information that has been utilized to support conclusion and statements.

F. Deliverables

Deliverables may include but are not limited to:

- Management System Documents
- Budget Documents
- Technical Reports
- Program/Project Management Reports
- Planning Documents
- Requirements Documents

- Document Review Comments
- Training Materials
- Assessment Documents
- Other Documents as Requested
- Centralization of program related documents, reports, and briefing materials
- Duplication and distribution of major products to project/program participants, as necessary
- Coordination and facilitation of program-related workshops and training
- Development and administration of central program(s)/project(s)-related documentation system.

The Seller shall provide monthly statements of expenses and accomplishments no later than the 5th of each month. This should include the previous month invoice, inclusion of all hard copies of deliverables completed, and any other services provided. In addition, upon completion of each specific assessment or subtask, a written report of the assessment or subtask shall be provided.

G. Meetings and Travel

Periodic meetings with staff and/or other management sponsors outside of Oak Ridge may be required and will be identified, planned and approved via a specific task order. Additionally, travel may be required to specific facilities within the United States. All travel will be approved by the ORNL Project Manager prior to the travel.