

## SECTION C

### DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

#### C-1 Introduction

The Department of Energy (DOE) intends this contract to support scientific initiatives to develop the next generation of science, technology, engineering, and mathematics (STEM) professionals; promote quality of DOE-funded research through peer review; operate the Radiation Emergency Assistance Center/Training Site (REAC/TS); provide information on the long-term health outcomes of current and former workers; and to provide capabilities to independently assess environmental cleanup. The Oak Ridge Institute for Science and Education mission is to support these DOE initiatives through the following primary activities:

- STEM Workforce Development,
- Scientific and Technical Resource Integration,
- Radiation Emergency Assistance Center/Training Site,
- Human Subject Health and Protection Surveillance,
- Independent Environmental Assessment And Verification

Within this scope, the Contractor creates opportunities consistent with the DOE mission for collaboration with the Office of Science and other DOE programs through partnerships with DOE facilities, federal agencies, the scientific community, and industry. Work will be assigned and controlled using the process described in DOE Order 412.1A *Work Authorization* System, or its successor.

#### C-2 Performance Expectations

The Contractor has the responsibility for total performance under the contract, including determining the specific methods for accomplishing the work effort, performing quality control, and accepting accountability for accomplishing the work under the contract. Accordingly, this contract provides flexibility, within its terms and conditions, to the Contractor in performing the work.

It is the Contractor's responsibility to independently develop and implement innovative approaches for executing the contract scope and to institute practices that advance continuous performance improvement.

The Contractor shall establish a system that clearly communicates the roles, responsibilities, and authorities of line managers. The Contractor shall hold line managers, including direct reports, accountable for performance. The Contractor shall perform all activities in compliance with applicable health, safety, environmental, and

security laws and regulations, DOE Orders, and national consensus standards. The Contractor shall establish effective management systems to identify deficiencies, resolve them in a timely manner, and ensure that corrective actions are implemented.

The Performance Evaluation and Measurement Plan, a tool for evaluating and measuring contractor performance, referenced in the clause in Section H titled *Standards of Contractor Performance Evaluation*, is developed annually by DOE and reflects mission critical initiatives and priorities of the Office of Science and other DOE program sponsors.

### **C-3 Statement of Work**

#### **(a) STEM Workforce Development**

The Contractor will manage workforce development programs to help ensure a robust supply of STEM professionals to meet future science and technology needs. The Contractor will manage competitive scholarship, fellowship, internship, and related programs that provide research and training experiences, including participation in collaborative research, for students and faculty at all educational levels. The Contractor will:

- Provide recruiting and administrative support for all program aspects, including but not limited to travel, stipends, and appointments, and program evaluation. Recruiting activities will place emphasis on participant groups that are underrepresented in science and technical fields.
- Conduct activities complementary to the development of a workforce to meet future science and technology needs as directed.
- Conduct labor trends research; provide follow-up studies to current science education initiatives; and collect, compile, and disseminate data, as requested.

#### **(b) Scientific and Technical Resource Integration (STRI)**

The Contractor will facilitate collaboration between academia and DOE to advance scientific research and education, focus research efforts, and promote quality of DOE-funded research. Specifically, the Contractor will:

- Coordinate and conduct peer and merit reviews, and other activities, related to Financial Assistance applications and proposals; evaluate ongoing research, as well as scientific and technical projects and programs; and other scientific and technical information including assessments, reports, and studies.
- Identify experts within academic, private, and national laboratory communities to support peer and merit reviews.
- Facilitate the Department's Institutional Review Board (IRB) and Human Subjects Working Group (HSWG) activities by 1) facilitating communications

to and among IRB and HSWG members, including arranging meetings and maintaining records and minutes; 2) providing education and resources to and for IRB and HSWG members and subject matter experts; and 3) supporting DOE's selection of new IRB members and subject matter experts as needed.

- Coordinate workshops, committee activities, program reviews, meetings, and reports specifically related to this scope element.
- Collect and document comments and recommendations and develop reports as needed in support of the sponsor for each of the panels, workshops, committees, etc. as described in the paragraphs above.
- Identify improvements to DOE peer review practices through lessons learned and experience with other science research-funding organizations.
- Maintain, develop, establish, and/or improve IT infrastructure and integrated application and review systems to support STRI and STEM Workforce Development, including on-line interface, information and user management, submission review, participant deliverables, and data retrieval capabilities as may be required.

**(c) Radiation Emergency Assistance Center/Training Site**

The Contractor shall support preparation and execution of DOE's emergency response assets through management and conduct of programs, studies, research, exercises, and/or training in the medical management of radiation accidents or incidents, and response both domestically and internationally.

The Contractor will provide expertise in the medical management of radiation accidents or incidents through operation of the Radiation Emergency Assistance Center/Training Site (REAC/TS), a dedicated DOE facility located in Oak Ridge, Tennessee. Specific tasks in support of this activity require the Contractor to:

- (1) Provide technical assistance for medical care of radiation accident victims in support of attending physicians. Activities supporting this capability are:
  - Conducting medical and radiation triage, decontamination chelation therapy, assessment of injuries, and dose assessments.
  - Providing a 24/7 capability to receive and respond to calls for assistance for medical care of radiation accident victims.
  - Maintaining equipment to provide medical education, advice, and assistance.
  - Providing technical continuing medical education (CME) courses in-house and off site to medical, emergency planning/response, and

health physics personnel and support international National Nuclear Security Administration (NNSA) training programs.

- Participating in the planning and conduct of emergency preparedness in large-scale national and international exercises and drills.
- Evaluating new developments in chelation therapy.
- Maintaining requirements as a World Health Organization (WHO) Collaborating Radiation Emergency Medical Preparedness and Assistance Network (REMPAN) center and as an International Atomic Energy Agency (IAEA) Response and Assistance Network (RANET) member.
- Providing a deployable, on-call capability, available 365 days a year, that is able to respond within 4 hours of notification to nuclear/radiological accidents or incidents domestically or internationally and providing expertise in the medical management of casualties.

(2) Provide programmatic clinical expertise and resources to:

- Develop and implement techniques for clinical evaluation and treatment as well as dose assessments of radiation exposure.
- Maintain and improve REAC/TS Radiation Accident Registries.
- Maintain reporting to the U.S. Food and Drug Administration for Investigational New Drug Applications.
- Participate in occupational medicine meetings and symposia.
- Provide leadership and expertise in radiation medicine.

(3) Operate NNSA's Cytogenetic Biodosimetry Laboratory for assessments of radiation dose exposures with the capability of providing dose estimates for radiation exposure events including multi/mass casualty events, conducting collaborative research to improve the dose estimate methodology and its associated utility, and increasing the speed of analysis.

**(d) Human Subject Health and Protection Surveillance.**

The Contractor shall provide DOE and the scientific community with important information on the long-term health outcomes of current and former workers.

This shall be conducted through surveillance of the health of current DOE workers and former DOE beryllium vendor employees through the systematic collection, analysis, and interpretation of data; maintenance of medical data and exposure information in the DOE Data Center; investigation of health effects by tracking the

medical history of workers and analyzing the possible effects of exposure; and providing technical support to the DOE Human Subject Protection Program, and DOE Beryllium Registry (DOE-STD-1187-2007 Beryllium-Associated Worker Registry Data Collection and Management Guidance). Specific tasks include:

- Facilitate electronic reporting of data for the DOE Beryllium Registry by 1) collecting, checking, and reporting data condition, and 2) accepting, processing, and loading data.
- Operate a beryllium testing laboratory for performance of Lymphocyte Proliferation Tests (DOE-SPEC-1142-2001, DOE Specification: Beryllium Lymphocyte Proliferation Testing) to screen individuals for beryllium sensitivity through 1) sample receipt, management, analysis, and disposal; 2) data management and process quality assurance; and 3) communication of results.
- Facilitate DOE Human Subject Policy Implementation through 1) administrative assistance, 2) distribution of information and guidance, and 3) identification and acquisition of technical assistance resources.
- Operate the Human Subject Research Database (HSRD), including 1) tracking data submission, requesting feedback, and conducting internet postings, 2) writing articles and giving presentations pertaining to the HSRD, and 3) coordinating research of ethical issues and new requirements for human subjects.
- Operate the Radiation Exposure Monitoring System (REMS) and Comprehensive Epidemiologic Data Resource (CEDR). This includes 1) data receipt, management, and quality assurance, the purpose of which is to enable epidemiology and other health studies such as those pursuant to 10 CFR 602.5, and 2) storage and maintenance of occupational exposure records in a facility meeting DOE's requirements for fire safety, security and confidentiality.

**(e) Independent Environmental Assessment and Verification**

The Contractor shall provide expertise for and perform independent verification of radioactively contaminated site cleanup as requested. This includes providing expert advice and consultation on matters related to radioactive contamination at sites and assisting as required in resolving data discrepancies. The Contractor must maintain organizational independence of the contractors performing the cleanup, including the appearance of organizational conflicts.

**C-4 Government-Furnished Property and Facilities.**

The Contractor will be responsible and accountable for all Government property provided under the contract. A list of all Government-furnished and acquired property is included in Section J.

The Contractor will be responsible for the operation and maintenance of government-furnished facilities. A list of Government-furnished facilities provided under this contract (including the square footage and a general description of the work that is performed in these facilities) is included in Section J. The Contractor may use the Government-furnished facilities to conduct the same activities that are currently conducted at those facilities. The Contractor shall explore and recommend options to the Government that will further optimize the use of said facilities.

**C-5 Reporting Requirements.**

Reports shall be submitted in accordance with the Section J attachment titled Reporting Requirements. Other reports may be required and shall be prepared and submitted in accordance with DOE guidance.

REVISED DRAFT