Statement of Work
Radiological Site Services Life Cycle Support Activities

Title: RSS Support for the Internal (In Vitro) Dosimetry
Revision Number: 0
Date: August 23, 2016

Acronyms

BTR – Buyer’s Technical Representative
HEDP – Hanford External Dosimetry Program
HIDP – Hanford Internal Dosimetry Program
HRIP – Hanford Radiological Instrumentation Program
HRRP – Hanford Radiological Records Program
IVMP – In-Vivo Monitoring Program
M&TE – Measuring and Test Equipment
RSS – Radiological Site Services

1.0 INTRODUCTION / BACKGROUND

The Radiological Site Services (RSS) program at Hanford provides an array of radiological safety related services and recordkeeping that are critical to protecting the health and safety of Hanford workers, the public, and the environment. The programs are divided into four interrelated components:

- Hanford External Dosimetry Program (HEDP)
- Hanford Internal Dosimetry Program (HIDP)
- Hanford Radiological Instrumentation Program (HRIP)
- Hanford Radiological Records Program (HRRP)

2.0 OBJECTIVE

MSA requires a Subcontractor to provide services to support the internal dosimetry program; which will include in vitro dosimetry, technical backup to in vivo dosimetry and the exposure evaluator program. This support must have specialized education, training, skill, and experience to support the life-cycle execution of the RSS Program. The Subcontractor’s requirements, roles and responsibilities are defined in Section 3 to support the scope of work. The subcontractor is required to provide technical support services as set forth herein.
3.0 DESCRIPTION OF WORK – SPECIFIC

The RSS Program is designed to assure the protection of the health and safety of DOE and Hanford Site workers and the public, and to demonstrate compliance with applicable laws, DOE directives, and legally-binding agreements. The Hanford Site has numerous radiologically hazardous sites and facilities, and the RSS Program is integral to maintaining a safe operating environment. The RSS Internal Dosimetry Program requires support to ensure the MSA work scope is completed in a technically adequate and compliant manner that includes requisite traceability to standards and procedures.

3.1 TASK 1: Provide Radiological Site Services HIDP Technical Lead

The Subcontractor shall provide a qualified individual to serve as the RSS HIDP Technical Lead. The specific roles, responsibilities, qualifications and requirements include:

QUALIFICATIONS

Certification by the American Board of Health Physics plus a Master’s degree in health physics, radiological sciences or similar field of study and 10 years professional health physics experience. Be knowledgeable of calculus, differential equations and statistical analyses, computer technology applicable to dose assessment, fundamentals of nuclear radiation physics and effects of ionizing radiation on the human body, familiarization with human anatomy and physiology, and familiarization with radiation counting instrumentation.

The position requires strong oral and written communication skills; the ability to direct work of others, track performance, provide just feedback, and develop junior dosimetrists; the ability to explain internal dose concepts and health effects to various audiences ranging from workers with some radiation worker training to medical doctors.

Expertise using personal computers, application software (e.g. Word, Excel), and navigating the Internet is required.

Must be able to be qualified as a DOELAP internal dosimetry assessor.

RESPONSIBILITIES

The HIDP Technical Lead has overall responsibility for the technical and administrative aspects of the program. This person ensures work is performed in accordance with the applicable program documentation in order to meet contractual requirements of the clients, to ensure the maintenance of accreditation through the DOE Laboratory Accreditation Program, to provide technical direction for the program and to ensure adequate resources are available to support routine operations. This program falls under the jurisdiction of the Price Anderson Act Amendment and must meet requirements in 10 CFR 835 and 10 CFR 830.120.

Specific duties include:
- Representing the Program on the Hanford Personnel Dosimetry Advisory Committee
- Mentoring junior dosimetrist(s)
- Authoring (can be delegated) documentation that establishes the technical basis and policies for the Program
- Performing intake evaluations; reviewing and approving intake evaluations performed by other staff
- Staying abreast of regulations, standards, and guidance documents in internal dosimetry and recommending Program changes accordingly
- Interfacing with customers on technical issues
- Interfacing with HPMC and local hospital staff concerning intake incident response; providing advice on severity of intakes and possible medical treatment
- Backing up Program staff during their absences
- Performing tasks as indicated under “Technical Lead” in Program procedures.
- Negotiating SOW and other program commitments with customers
- Prep and Risk, Program Management Plan, Quality Assurance Plan, RIDS
- Assigning tasks to Program staff and tracking performance
- Establishing SDR objectives and performance evaluations of Program staff
- Approving Program procedures and manuals and variances to such
- This position also fulfills the responsibilities of Technical Administrator for the bioassay contractor for the Hanford Site.
- Routinely performs the day-to-day technical and administrative activities associated with the bioassay monitoring of Hanford workers for intakes of radioactivity
- Technical aspects include data review, decisions on follow-up actions such as special bioassay measurements to support investigations of potential intakes, data analysis, dose calculations, dose assessment report writing, contribution toward technical improvements to the program, and technical peer review of similar activities by other scientists and technical staff.
- The position includes being an on-call exposure evaluator, providing immediate response to incidents with potential for intake of radioactive material. This response may require decisions on necessary measurements, counseling workers regarding the measurements and the significance of an intake, providing guidance to medical staff regarding the severity of intake and making recommendations for medical treatment.
- The position provides quality control oversight of the excreta bioassay analytical lab, including administration of performance tests and analysis of lab QC data. Administrative roles include maintaining and updating program technical and administrative procedures and manuals, monitoring the status of evaluations to assure data is obtained and reports are completed according to program requirements.
The estimated annual hours associated with RSS HIDP Technical Lead work scope for life-cycle execution of the RSS Program is 1830 hours.

3.2 TASK 2: Provide Radiological Site Services Exposure Evaluator Technical Lead

The Subcontractor shall provide a qualified individual to serve as the RSS IVMP Lead Technician. The specific roles, responsibilities, qualifications and requirements are included in the following:

QUALIFICATIONS

Certification by the American Board of Health Physics plus a Master’s degree in health physics, radiological sciences or similar field of study and 10 years professional health physics experience. Be knowledgeable of calculus, differential equations and statistical analyses, computer technology applicable to dose assessment, fundamentals of nuclear radiation physics and effects of ionizing radiation on the human body, familiarization with human anatomy and physiology, and familiarization with radiation counting instrumentation.

The position requires strong oral and written communication skills; the ability to direct work of others, track performance, provide just feedback, and develop junior dosimetrists; the ability to explain internal dose concepts and health effects to various audiences ranging from workers with some radiation worker training to medical doctors.

Expertise using personal computers, application software (e.g. Word, Excel) and navigating the Internet is required.

Task or project management experience in a technical area is required.

Must be able to be qualified as a DOELAP internal dosimetry assessor.

RESPONSIBILITIES

The Exposure Evaluator Technical Lead has overall responsibility for the technical and administrative aspects of exposure evaluator program. He/she ensures work is performed in accordance with the applicable program documentation in order to meet contractual requirements of the clients, to ensure the maintenance of accreditation through the DOE Laboratory Accreditation Program, to provide technical direction for the program and to ensure adequate resources are available to support routine operations. This program falls under the jurisdiction of the Price Anderson Act Amendment and must meet requirements in 10 CFR 835 and 10 CFR 830.120.

Specific duties include:

- Representing the Program on the Hanford Personnel Dosimetry Advisory Committee
- Mentoring junior dosimetrists(s)
- Authoring (can be delegated) documentation that establishes the technical basis and policies for the Program
• Performing intake evaluations; reviewing and approving intake evaluations performed by other staff
• Staying abreast of regulations, standards, and guidance documents in internal dosimetry and recommending Program changes accordingly
• Interfacing with customers on technical issues
• Interfacing with HEHF and local hospital staff concerning intake incident response; providing advice on severity of intakes and possible medical treatment
• Backing up Program staff during their absences
• Performing tasks as indicated under “Technical Lead” in Program procedures.
• Assist in Program Management Plan, Quality Assurance Plan, RIDS
• Conferring with management regarding SDR objectives and performance evaluations of Program staff
• Approving Program procedures and manuals and variances to such
• Performing tasks as indicated under “Program Manager” in Program procedures.

The estimated annual hours associated with RSS Exposure Evaluator Technical Lead work scope for life-cycle execution of the RSS Program are 918 hours.

4.0 REQUIREMENTS

General

Subcontractor shall operate to MSA policies, procedures, and processes. MSA will supervise and direct the day to day work activities of the Subcontractor’s personnel.

For any work performed on the Hanford Site or any MSA controlled facility, the provisions of the On-Site Services Provisions, SP-5, will apply to Subcontractor personnel.

4.1 ES&H Requirements

The Subcontractor shall perform work safely, in a manner that ensures adequate protection for employees, the public, and the environment, and shall be accountable for the safe performance of work. The Subcontractor shall comply with, and assist the Buyer in complying with Environmental, Safety, Health, and Quality (ESH&Q) requirements of all applicable laws, regulations and directives.

The Subcontractor shall exercise a degree of care commensurate with the work and the associated hazards. The Subcontractor shall ensure that management of ES&H functions and activities is an integral and visible part of the Subcontractor’s work planning and execution processes. As a minimum, the Subcontractor shall:

• Thoroughly review the defined scope of work;
• Identify hazards and ES&H requirements;
• Analyze hazards and implement controls;
• Perform work within controls; and
• Provide feedback on adequacy of controls and continue to improve safety management.

The Subcontractor shall flow down ESH&Q requirements to the lowest tier Subcontractor performing work on the Hanford site commensurate with the risk and complexity of the work.

4.3 Quality Assurance Requirements

The work activities for this statement of work shall be performed in accordance with the MSA’s Quality Assurance Program and procedures.

4.4 Government Property

The Subcontractor will be working on site and using government-provided computers, work stations, and other office equipment.

5.0 PERSONNEL REQUIREMENTS

5.1 Training and Qualification

A. Subcontractor shall ensure that its personnel meet and maintain the appropriate training, qualification and certification requirements. Hanford site-specific general training requirements to safely perform this work will be designated by the Buyer’s Technical Representative (BTR).

B. The following types of training qualifications are required: HGET

Subcontractor shall participate in the required training designated by the facility. Subcontractor shall contact the BTR prior to start date for instructions and training requirements. An estimated 8 hours of training to be performed on the first day of the on-site visit.

C. The Subcontractor must meet the following minimum qualifications:

Required Qualifications:

Experience in the internal dosimetry, radiological records, and radiological instrumentation fields. Meet the requirements for education and experience as
identified in Section 3.0 of this document. Subcontractor shall provide resumes of all proposed staff for BTR review and approval.

**Desired Qualification**
Experience with the Hanford Site RSS program

### 5.2 Security and Badging Requirements

A. For any on site work, see Special Provisions – On-Site Services SP-5 for details.

B. The Subcontractor shall wear a Buyer-issued security badge identifying themselves. A minimum of two working days advance notice is needed for site badging.

C. Subcontractor employees will be required to submit to vehicle searches and not personally carry or transport certain prohibited articles.

### 5.3 Work Location/Potential Access Requirements:

MSA shall provide access to the HEDP computer systems and software located at the 6266 Building and 805 Goethals in Richland, WA for execution of this subcontract.

### 5.4 Site Access and Work Hours

The Radiological Site Services In Vivo Monitoring facility is open to clients Monday – Thursday and operates on the 4/10’s schedule. The standard work day shall consist of ten (10) hours of work between 6:00 AM and 4:30 PM, with one-half hour designated as an unpaid period for lunch. Due to the quality control requirements of the facility which need to be performed on Fridays, the Technical Lead has the opportunity to work an alternate work schedule negotiated and documented with RSS management.

Exposure Evaluator Program responsibilities are rotated between qualified staff according to an established calendar.

### 6.0 MEETINGS, SUBMITTALS

Subcontractor shall participate in all meetings as required by the Buyer’s Technical Representative (BTR). Subcontractor shall prepare summary of meeting and submit the summary to the BTR within 1 day of the meeting. The summary shall include attendees, any decisions, actions, and general discussion items.
7.0 DELIVERABLES, PROJECT CONTROLS, MILESTONES AND PERFORMANCE SCHEDULE REQUIREMENTS

7.1 Deliverables

None

7.2 Schedule

Start date: January 1, 2017
Completion date: Sept. 30, 2018