

**REQUEST FOR PROPOSAL**  
RFP DE-AC27-03RV14541

**OVERVIEW**

As directed by Congress, the U.S. Department of Energy (DOE) established the Office of River Protection (ORP) at the Hanford Site to manage the River Protection Project (RPP), which is the Department's largest and most complex environmental cleanup project. The mission of the RPP is to retrieve and treat Hanford's tank waste and close the tank farms to protect the Columbia River. The cleanup of the highly radioactive tank waste must occur in an environmentally sound, safe, and cost-effective manner.

The 222-S Laboratory located on the southern edge of the 200 West Area of the Hanford site consists of the 222-S complex of buildings and auxiliary buildings used for ventilation and electrical services, bulk material storage, and handling and transferring wastes to an onsite waste handling facility or offsite facilities.

The 222-S Laboratory performs analyses of high radioactivity samples and mixed wastes and provides process technology support (e.g. methods development, process troubleshooting) for the Site. Chemical process development at a bench scale is also performed. Cs-137 and Sr-90 in quantities of hundreds of curies are the major radioisotopes used. Small quantities (less than the limit for 'isolated facility' of plutonium is also used. The Laboratory has a broad range of capability for radiochemical, inorganic, and organic analyses, employing about 175 analytical methods to meet the diverse needs of Site customers. Currently the Laboratory performs about 25,000 analyses per year, including those for tank characterization and closure, mission acceleration, treatment optimization and waste characterization.

The 222-S Laboratory is being transitioned from the DOE Richland Office (DOE/RL) to the ORP. Under the assumptions of the transition plan, an extent of condition (EOC) review is needed. The EOC will be conducted under contract through the DOE/ORP. CH2M Hill will assist ORP by providing subject matter expert support (SME) for this review to the successful offeror. **The purpose of the EOC review is to identify pre-existing conditions prior to the transition.**

**WORKSCOPE DESCRIPTION**

The scope of this contract is to examine and provide reports per the schedule below. The NAICS code applicable to this scope of work is 541380.

- Laboratory Operations and Analysis
- ESH&Q
- Finance
- Infrastructure
- Customer Interface and Information Systems, including the Laboratory Information Management System (LIMS)

The successful offeror will be provided facility specific safety/process training upon award.

Five main areas shall be reviewed for pre-existing conditions during the 222-S Extent of Condition Review: Laboratory Operations and Analysis; Environmental, Health, Safety, and Quality; Financial; Infrastructure; and, Customer Interface and Information Systems (including LIMS). Some key areas of concern have been identified for review. Additional areas may be added at the discretion of the ORP, upon warranted authorization provided in writing by the ORP Contracting Officer.

The workscope shall consist of planning for the Extent of Condition Review, documentation review, up to two weeks of an on-site laboratory field review (including filling out Pre-Existing Condition Forms), an oral out brief and final report listing areas reviewed, conditions and issues found.

The following deliverables are anticipated:

- a) Pre-existing Condition Forms documenting areas reviewed and issues found during the review. These forms are to be turned in following review
- b) An oral out brief review summarizing conditions found to be performed immediately the field review for representatives of DOE and its contractors
- c) A Final Report summarizing areas reviewed and conditions found

## **1. LABORATORY OPERATIONS AND ANALYSIS**

The following systems shall be reviewed for adequacy (compliance to requirements), effectiveness, ease of use and pre-existing conditions

- **Sample Tracking and Disposal**
  - Verification that Laboratory has a tracking system that will track samples from receipt to disposal
  - Verify that a plan is in place to ensure all excess samples are disposed or returned to customer prior to transition
  - Verify whether or not there are samples without a disposal pathway
- **Laboratory Data Records**

Verify analytical data are stored as quality records. Analytical data should include:

- Raw and supporting data

- Electronic instrument files
  - Logbooks
  - Certificates for reference materials
  - Sample shipping records/ Chain of custody records
  - Subcontractor data with required quality control information
- **Laboratory Procedures**
    - Ensure technical procedures are adequately reviewed and tested by technical staff prior to implementation
    - Verify procedure reviews of active procedures take place on a routine basis
    - Verify a documented change control process exists for procedure updates
    - Obtain a backlog of current procedure changes that are in process
- **Measuring and Testing Equipment**
    - Verify calibration and maintenance of equipment and instruments used for measuring and testing
    - Verify documentation of major, preventative, and daily equipment maintenance
    - Verify a documented inventory of critical spare parts and/or equipment necessary to minimize measurement downtime
    - Verify equipment is connected to a stable power source, surge protection is used, and UPS backup exists
    - Verify equipment is calibrated, adjusted and maintained at prescribed intervals or prior to use according to nationally recognized standards. If nationally recognized standards do not exist, verify documentation of basis for calibration
    - Verify that balances, pipets, refrigerators, ovens and other laboratory equipment are accurate and that performance is monitored and documented
    - Determine method of equipment transfer
- **Laboratory Instrumentation**
    - Listing of Major Instrumentation/Date of Purchase
    - Maintenance Records/ Logbook Review

- Routine maintenance and inspections conducted and documented
  - Significant corrective actions documented
  - Annual review of instrument maintenance records
  - Spare parts inventories are documented if applicable
- **Training & Qualifications**
  - Verify Qualification Card compliance
  - Verify Training Matrix
  - Verify that all training is current
  - Verify that an analyst certification program is in place and that analysts are recertified on a designated basis (not to exceed 2 years)
- **Management/Organization**
  - Verify that current organizational charts are available and accurate
  - Verify that adequate staffing exists to meet compliance and production requirements
  - Estimation of Production Capability for Inorganics, Organics and Radiochemistry
- **Maintenance and Preventative Maintenance Programs DOE Order 4330.4B**
  - Report on backlog of maintenance work orders (preventive and corrective)
  - Verify that there is adequate maintenance staffing
  - Verify that preventative maintenance program implement and adequate
  - Review work packages for adequacy and completeness
  - Review scheduling and planning process for work control
  - Verify adequate staffing or matrix staffing to support facility maintenance requirements
- **Engineering**
  - Verify adequate implementation of site engineering standards
  - Verify adequate staffing or matrix staffing to support facility engineering requirements

- **Corrective Actions and Tracking Programs**

- Verify program implementation
- Verify corrective action tracking system exists which tracks corrective action to completion
- Verify for significant corrective actions have completed root cause analyses
- Review Price Anderson- issues and determine resolution adequacy
- Review Occurrence Reporting – issues and determine resolution adequacy
- Review Critique process

- **DOE Order 5480.19 – Conduct of Operations**

- Verify compliance matrix
- Verify implementation

## **2. ENVIRONMENTAL, HEALTH, SAFETY AND QUALITY**

- **Safety, Industrial Hygiene, ISMS**

- Verify ISM Implementation (DOE P 450.4)
- Verify ISM Work Control implementation
- Appropriate hazard analysis has occurred prior to work
- Planning has considered all aspects of worker safety
- Verify ISM Implementation
- Verify work control
- Verify records of employee monitoring including both radioactive and chemical exposure
- Ensure safety inspection program exists and corrective actions have been completed
- Ensure adequate safety showers and eye wash stations
- Verify emergency exits are well marked and not blocked
- Verify employee health and safety training is current
- Verify adequacy of housekeeping

- **Quality**

- Verify Quality Assurance Program Plans flowdown 10 CFR 830.120 requirements

- Verify independent assessments have been conducted. Review issues and actions for adequacy
- Verify Quality program implementation
  
- **Chemical Management**
  - Verify chemicals are managed in accordance with OSHA 1910.1450 and SARA (Community Right-to-Know)
  - Assure chemicals are stored with compatible materials
  - Verify adequacy of laboratory standards program
  
- **Environmental/Waste**
  - Review environmental documentation for issues and resolution adequacy (e.g. RCRA and other permit compliance; settlements and commitments for Washington Department of Ecology)
  - Verify required environmental reporting has been completed on time and is on schedule for the current year
  
- **Radiological Control**
  - Verify Radiological equipment is properly maintained
  - Review ALARA, independent and Facility Evaluation Board assessments, NTS and Occurrence reports for issues and actions
  - Verify Radiological Control Program is in accordance with 10 CFR 835
  
- **Authorization Basis/Criticality Safety**
  - Review new Documented Safety Analysis, Technical Safety Requirement (TSR) and Fire Hazards Analysis (FHA) documents that are currently pending approval
  - Verify TSR, FHA and DSA documents are current and implemented or implementation is in progress.
  - Review of process and validation of inventory control for Authorization Basis limits
  - Assure adequate criticality procedures are in place and implemented
  
- **Emergency Preparedness**
  - Review spill records and ensure cleanup documentation is detailed and complete

- Verify Emergency Preparedness Plan is current, appropriate information posted
- Verify Emergency Preparedness drill documentation is available and complete
- Determine status of in-progress or planned repair/maintenance fire systems
- Determine status of fire system upgrades/modifications for facility

### 3. FINANCIAL

- **Controls/Baseline**
  - Scope, schedule and cost baseline information is available and accurate
- **Contracts and services**
  - Listing of current contracts and services is available and up to date
- **Procurements**
  - Review most recent procurement assessment for issues and actions

### 4. INFRASTRUCTURE

- **Property management**
  - Inventory is properly controlled and accounted for
- **Safeguards and Security**
  - Safeguards program for special nuclear material
  - Security program in place
  - Training and qualifications current

### 5. CUSTOMER INTERFACE, INFORMATION SYSTEMS & LIMS

- **Computers and Software**
  - Verify software change control documentation is maintained and readily available
  - Verify documentation for verification of software validity is maintained
  - Verify software historical files of all version of software programs exist and include dates that software was placed into and removed production
  - Verify computer security system includes password changes, virus protection, and physical access
  - Verify regularly scheduled maintenance is performed and documented

- Verify system backups and disaster recovery processes are in place
- **LIMS**
  - Verify that a description of the LIMS design and capacity is documented and maintained
  - Documentation of updates and changes to the LIMS exists and is maintained
  - Native files (original code) are available
- **Records Management**
  - Records management program exists and is implemented
  - Quality records are clearly identified and properly maintained
  - Verify that laboratory has an adequate document control system in place
  - Verify procedures, policies, and manuals reflect current operations and have been reviewed on a designated frequency
  - Verify that records storage meets federal and DOE guidelines
- **Services Level Agreements (SLA)**
  - SLA current and signed off for all customers
  - Tracking of actual work received vs. SLA