

Revision 1
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STATEMENT OF WORK

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1.0 INTRODUCTION / BACKGROUND

This contract is issued for the performance of Technical Support, Inspection and Engineering Services for the Canister Storage Building Multi-Canister Overpack Handling Machine (MHM).

The MHM is a fully shielded gantry crane designed to safely transport a Multi-Canister Overpack (MCO) within the Canister Storage Building (CSB) located in the Hanford 200 East Area.

Since the completion of the MCO receipt campaign in 2005 the MHM usage has been infrequent to low. Periodic Maintenance activities are performed on a quarterly and annual basis per manufacturer recommendations.

During the recent cycle of periodic maintenance activities, the MHM has had a series of faults in instrumentation and controls (I and C) systems, including degraded components and failures. The CSB Engineering and Maintenance group, through trouble shooting efforts, have replaced relays and limit switches with limited success in resolving these issues. Technical assessment and assistance of a crane specialist/manufacturer is being requested.

CHPRC is a prime contractor to the Department of Energy (DOE) and all work on this Statement of Work will be performed in support of the CHPRC contract with DOE.

The services specified in this SOW are designated Quality Level 3 (QL-3) in accordance with CHPRC procedures PRC-PRO-QA-268, *Control of Purchased/Acquired Items and Services*, and PRC-PRO-QA-259, *Graded Approach*. Refer to Section 6.0, Quality Requirements, for further information.

2.0 DESCRIPTION OF WORK – GENERAL

The MHM is a 12-ton gantry crane manufactured by GEC Alsthom and Ederer in circa 1999. The MHM has been designed to safely transport an MCO within CSB. Redundant electrical interlocks are included to ensure the MHM is not operated in a manner that would endanger the operator and the integrity of an MCO. It is also designed such that a single operating failure would not jeopardize personnel safety. The driving functions are controlled by a combination of operator commands made through the operations control station. These commands, together with their associated electrical permissive interlocks, inhibit hazardous operations.

The MHM usage has been infrequent to low since the completion of the MCO receipt campaign in 2005. The MHM is currently utilized for the occasional need to relocate an MCO from its storage tube to the sampling pit, or vice versa.

Presently, the MHM components have had a series of faults in I and C systems associated with the MCO Hoist. The MCO Hoist is unexpectedly locking up with no indication of a potential cause. The MCO Hoist system has undergone troubleshooting but the issue has yet to be resolved. As parts are replaced, new issues with associated systems arise. CSB Engineering has found it necessary to manually hand-wind the hoist until it regains full functionality.

Contractor work under this contract is for the purpose of supporting resolution of these issues and improving the reliability of the MHM for future usage.

3.0 DESCRIPTION OF WORK – SPECIFIC

Contractor employee(s) shall be responsible for specialized administrative and technical support, and this work scope includes the resources, material and/or equipment necessary to accomplish the following tasks:

- a. **Provide technical consultation to CHPRC to address system and component failures.** The contractor shall support CHPRC with the objective of providing a fully functional MHM. The contractor shall review the recent history of MHM operation and maintenance activities and CHPRC's troubleshooting plan. Contractor shall provide consultation to ensure the plan is adequate, and recommend any additional inspections and troubleshooting that may be required.
- b. **Provide technical consultation to CHPRC to review existing spare parts list and recommend additional spare parts as necessary.** The contractor shall review the existing spare parts list and provide recommendations for procuring additional components. A summary document of items reviewed, and recommendations made shall be formally transmitted upon completion of the contractor review.
- c. **Provide specific crane consultation upon written direction from CHPRC.** It is expected that assistance with other MHM related issues or inspections may be required during the course of this work. Upon direction of the BTR, provide resolution or counsel on the topics and inspections services on an as needed basis.

Contractor personnel shall travel to the location designated by CHPRC to meet the designated CHPRC escort and perform the requested services in accordance with applicable standards and procedures.

Following Contractor's evaluation of the MHM, and support of troubleshooting activities, the Contractor shall provide a report to CHPRC giving Contractor's evaluation of the MHM, its operational and maintenance status, and the results of the spare parts evaluation as described above.

Separately, Contractor shall provide a proposal to CHPRC detailing recommendations for further MHM support. Contractor shall show all itemized labor and material costs with any recommendations in its proposal.

Prices for any further work as detailed in Contractor's proposal, if ordered, will be set forth in a modification to this contract,

3.1 Special Requirements

- 1) Contractor shall have a minimum of 5 years' experience as a crane manufacturer or representative with demonstrated experience as a *qualified person* as defined in ASME B30.2-2016.

- 2) Contractor shall have either:
 - a. Familiarity and experience with the CSB MHM design and operation, OR
 - b. Familiarity and experience with crane designs that incorporate complex interlock and relay controls, sufficient to demonstrate the ability to efficiently diagnose and troubleshoot CSB MHM.
- 3) Contractors proposal shall include statement of how Contractor and any provided Contractor technicians satisfy 3.1 (1) and/or (2) above.

3.2 Acceptance Criteria

Work products and services provided shall meet standard of a crane manufacturer and be formally transmitted on Contractor letterhead. CHPRC requests informal review of deliverables before formal transmittal.

3.3 Organizational Interfaces

The Contractor shall interface with various CSB facility organizations through the CHPRC Contract Specialist (or designee), as required. The primary interface at the facility will be with the CSB facility engineers.

- Buyer's Technical Representative (BTR) – Phillip A. Harmon. Office: 509-373-9853; cell: 713-907-2312.
- Technical Point of Contact – Sintia E. Alcazar. Office: 509-373-6502

3.4 Work Not Included

Work not included in this Contract includes hands on maintenance of the MHM. It is anticipated that this work will require entry into confined spaces. Site required training and escorts will be provided.

3.5 Buyer Furnished Materials and Equipment

The CHPRC will furnish access to the facility, engineering and maintenance teams, crane drawings and photographs, MHM vendor manuals and maintenance and inspection work packages.

3.6 Site Conditions and Known Hazards

As required to support work, the Contractor shall attend meetings and tours/walk-downs at the CSB facility and in office areas around CSB.

All Contractor tours / walk-downs shall be approved in advance by the BTR and performed with a CHPRC escort with assistance from Radiological Control as required. Planning for each tour / walk-down shall be performed consistent with CHPRC procedures. In general, site facility tours are expected to have low radiological risk. The primary hazards to participants are expected to be slips, trips and falls, and struck against, struck by, caught in or between hazards. For outdoor walk-downs, hazards may also include tick, snake and insect bites, and sun/heat/hydration concerns. Inspection work will require Lock out/Tag Out training. Specific site conditions and known hazards will be communicated by the BTR or designee prior to the walk-downs or inspections.

3.7 Site Coordination Requirements

The Contractor shall coordinate any on-Site activities in advance with the CHPRC BTR. The Contractor shall make contact with the BTR or designee when arriving at the facility site. Contractor personnel shall ensure they have received the necessary orientations, safety briefings, and related training prior to touring the site / facility.

4.0 TECHNICAL REQUIREMENTS

The Contractor shall perform all Work in accordance with national consensus codes and standards and their own crane manufacturer requirements. Applicable codes include:

- ASME B30.2-2016 Overhead and Gantry Cranes
- 29 CFR 1910.179 Overhead and Gantry Cranes

4.1 Work Location / Access Requirements (if applicable)

CSB facility and in CSB mobile offices and support areas.

5.0 PERSONNEL REQUIREMENTS

5.1 Training and Qualification

- A. The Contractor is expected to provide appropriately trained and qualified staff to perform the type of work associated with their skill of craft at the Hanford site.
- B. CHPRC shall provide Contractor staff task or facility specific training as required for site and facility access and safe performance of assigned tasks. These training requirements are expected to include:
 - a. Hanford General Employee Training (HGET) – computer based training (CBT) that must be completed in Richland, WA
 - b. Facility specific CBT's for working at CSB

- c. Lockout/Tagout Authorized Worker – classroom training (00313I, 8 hrs) that must be completed at the Hammer facility in Richland, WA
 - d. Fall protection – classroom training (020440, 9 hrs) Hammer facility
 - e. Confined space entry – classroom training (020134, 7 hrs) Hammer facility
 - f. CSB MHM Fall Restraint Qualification, On-the-Job-Training (OJT), course 231035 (course will be provided on-site at CSB)
- C. Contractor personnel shall also complete 24 hr Hazardous Waste 1910.120 (e) training and provide certificate showing completion, prior to performing work at CSB. This training can be completed online at www.nationalevironmentaltrainers.com, or equivalent, and must meet the requirements of Title 29 CFR 1910.120 (OSHA HAZWOPER Regulations).
- D. Dosimetry, if required, will be provided by CHPRC
- E. BTR will schedule CHPRC required training at the earliest convenient possible time. Initial site visit(s) and work may be permitted in advance of completion of Hammer training, with the necessary restrictions applied to Contractor personnel until the Hammer training is completed.

5.2 Security and Badging Requirements

For any on site work, general site access badging is required.

- Special clearance requirements will be provided, if applicable.

5.3 Site Access and Work Hours

Work will be done on a 4 x 10 schedule, Monday through Thursday. The standard workday shall generally 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. Work does not generally take place on Fridays. If schedule alternative is required, BTR will communicate to contractor.

6.0 ENVIRONMENTAL, SAFETY, HEALTH, AND QUALITY REQUIREMENTS

The Contractor 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 Contractor shall comply with, and assist CHPRC in complying with Environmental, Safety, Health, and Quality (ESH&Q) requirements of all applicable laws, regulations and directives.

Materials supplied or purchased for use in performance of this contract, to the maximum extent practical, shall be environmentally preferred as described in 40 CFR 247 and including Biobased products as designated by the USDA . www.biopreferred.gov

The following project-specific ESH&Q requirements are applicable to this scope of work in addition to the requirements identified in the contract [General Provisions](#) and, when work is being conducted on site, the additional ESH&Q requirements in [SP-5 Special Provisions – On-Site Services](#).

7.0 MEETINGS

7.1 Meetings

Contractor shall participate in the following meetings:

1. Project Kickoff meeting. This meeting will be held after contract award to review contract requirements and processes, establish protocols for communications and interfaces, introduce key personnel and their roles and responsibilities, and review the project schedule. The agenda for the meeting shall be provided by the Buyer.
2. Any other meetings requested by the Buyer during the course of work as necessary.

The person or persons designated by the Contractor to attend all meetings shall have all required authority to make decisions and commit Contractor to technical decisions made during meetings.

8.0 DELIVERABLES, PROJECT CONTROLS, MILESTONES, AND PERFORMANCE SCHEDULE REQUIREMENTS

- a. Contractors report to CHPRC giving Contractors evaluation of the MHM, its operational and maintenance status (as stated in 3.0 above). This report shall be provided within 30 days of completion of Contractors initial site visit and evaluation of the MHM.
- b. Supplemental reports shall be provided to CHPRC following all subsequent site visits, within 30 days of the completion of each visit.
- c. A summary document providing Contractors evaluation of the CHPRC existing MHM spare parts listing, with any additional spares recommended, including basis for the recommendation (as stated in 3.0.b above). This report shall be provided within 30 days of completion of Contractors site visit including receipt of the CHPRC existing spare parts listing.
- d. Contractors proposal to CHPRC detailing recommendations for further MHM support (as stated in 3.0 above). This proposal shall be provided to CHPRC following Contractor visits sufficient to provide comprehensive recommendations.