

February 29, 2016

Dear Interested Party:

EXPRESSION OF INTEREST (EOI) FOR WEATHER ENCLOSURE BRIDGE CRANE

The purpose of this expression of interest (EOI) is to identify potential firms interested in designing, fabricating, and testing an overhead bridge crane that will be used inside of the Low-Activity Waste Pretreatment System (LAWPS) process building. The process building is referred to as the weather enclosure.

Background

Washington River Protection Solutions (WRPS) is the Tank Operating Contractor for the U.S. Department of Energy-Office of River Protection (DOE-ORP) on the Hanford Site. The Hanford Site stores an estimated 56 million gallons of mixed radioactive and chemically hazardous waste in large underground tanks. Washington River Protection Solutions is in the process of designing the LAWPS to produce Low Activity Waste (LAW) from Hanford tank waste. The LAW will be transferred to the Waste Treatment and Immobilization Plant (WTP) LAW Vitrification Facility, where the hazardous constituents in the LAW will be immobilized in a glass waste form for disposal.

Current Approach

The Weather Enclosure Bridge Crane will be dedicated to the hoisting, removal, and transport of process cell cover plates, and for maintenance/service of the process equipment located beneath the cover plates within the process building. The bridge crane is expected to be classified as a CMAA #70, Service Class D crane, with ASME NOG-1, Section 4150 seismic design criteria, and the material requirements and allowable stresses of Sections 4200 and 4300.

The crane design is expected to be classified as Safety Significant (SS) to prevent damaging interactions with other safety significant structures, systems, and components during a design basis earthquake. The crane structural components such as the bridge, trolley, and major mechanical components must remain intact during a design basis seismic event, but the crane does not need to be operable after the event. The crane also does not need to retain control of the suspended load during and after the design basis seismic event. Elements of the crane design necessary to achieve the safety function and functional requirements stated above will be designed, built, and tested under an ASME NQA-1-2008/2009 Quality Assurance Program.

The equipment to be designed, fabricated, furnished and delivered will consist of a top running, double-girder bridge crane with an integral trolley running on top of the bridge girders. It is expected to be a CMAA #70, Service Class D crane with 40 ton main hoist capacity, with two (2) 10 ton capacity auxiliary hoists mounted on an independent trolley. The crane will be operable from a mobile radio remote control station which can be positioned as required for safe and effective operation. It will be complete with electrification system, accessories, and finish painted to form a complete and operable unit. The crane is expected to consist of the following:

1. Bridge and electric bridge drive
2. Bridge end trucks
3. Main and auxiliary trollies, trolley drives and rails
4. Main wire rope hoist with true vertical lift
5. Two (2) auxiliary chain hoists mounted on a common motorized swivel
6. Motion brakes

7. Bridge and trolley power conductors, including (as required) festoon trolleys, or cable reels, etc. and their supports.
8. Personnel safety guards and access ways on the crane, including grated platforms, and fixed steps or ladders as required to facilitate maintenance.
9. Complete set of instruments, safeguards, and controls required for operation, including CCTV cameras and lighting to allow remote operation of crane functions to help limit personnel exposure.
10. Mechanical stops with electrical interlocks to prevent unsafe operation of the crane.
11. Capability to recover the crane both with a backup hardwired pendant control and with a mechanical cable/chain system in case of a mechanical or electrical failure.
12. Two (2) full function mobile radio remote control stations, one operating and one spare, plus a hardwired pendant backup control system for bridge retrieval.

The specific areas of contract responsibility for supply, design, material and services are summarized below:

1. The Supplier responsibilities will include design, detailing, procurement, fabrication, in-process and final manufacturing inspection and testing, factory acceptance testing, shop assembly and packaging for shipment of the bridge crane and accessories.
2. Drawing and data submittals in accordance with requirements of the contract.
3. Work will conform to the requirements of the codes and standards as specified in the contract.
4. Engineering, design drawings, and data that is required for design and installation of the interfacing steel supports, and for installation of interfacing equipment that is supplied by others.
5. The Supplier will provide structural and seismic analyses in accordance with the codes and standards specified in the contract, including providing appropriate seismic restraints and anchors. The Supplier will provide loading information for design of the support structure. The Buyer will provide the in-structure seismic response spectra to be used in the crane analysis.
6. Other services such as Supplier support during field installation and testing of the crane may be included.

Vendor Responses

WRPS is currently requesting that interested firms provide information regarding their capabilities. Responses should discuss the following:

- Location of facilities
- Office space for engineering and administrative staff
- Engineering capabilities including engineering disciplines, registered professional engineers, analytical software, etc.
- Crane equipment codes and standards work capabilities and experience.
- Manufacturing space and manufacturing capabilities
- Identification of subcontracted engineering and manufacturing services
- Personnel qualifications and certifications for special process procedures and inspections such as nondestructive examinations, weld inspections, etc.
- Description of NQA-1 quality assurance program.
- Description of similar and relevant work and industry/customer serviced

Please send all correspondence regarding this EOI to Ricky Franzen @ Ricky_L_Franzen@rl.gov . Please use 2DB00-RLF-16-005 in the e-mail subject line. Ricky may be reached by telephone at (509) 373-7141. Responses are due by March 14, 2016. Response to this EOI is required to be considered in forthcoming procurements related to this EOI.

Closing Remarks

Please be aware WRPS does not intend to award a contract on the basis of this notification, nor pay for information solicited. Vendors are encouraged to share industry knowledge and experience; however the sharing of proprietary knowledge is prohibited.

We look forward to hearing from you regarding our request and seeing you in the near future.

Sincerely,

Ricky Franzen, Contract Specialist

Procurement

cc: file