May 16, 2019

Subject: EXPRESSION OF INTEREST: EOI 2DB00-KDF-19-05-16

Introduction

EXPRESSION OF INTEREST (EOI) FOR DESIGN, MANUFACTURE, TEST AND DELIVER SPECIALIZED TOOLS AND DEPLOYMENT SYSTEMS TO CUT AND MOVE DEBRIS IN NUCLEAR WASTE TANKS.

Washington River Protection Solutions (WRPS) - the Tank Operating Contractor (TOC) for the U.S. Department of Energy Office of River Protection (DOE-ORP) Hanford site Richland WA 99354 has a requirement for specialized tools and deployment systems to cut and move debris and equipment in nuclear waste tanks in support of tank waste sampling and retrieval.

Background

WRPS is planning to issue an RFP for design, manufacture, testing, and delivery services that includes all materials, equipment, off-site fabrication and testing labor, and all other essentials necessary to deliver a specialized tool or tools and deployment systems to cut and move debris in nuclear waste tanks at the Department of Energy's (DOE) Hanford Government Site (200 East Area) located in Southeastern Washington State.

The target need date for this procurement is to be determined.

The competition will likely be a best value competition, with demonstrated experience in designing, manufacturing, testing, and delivering this type of tool in accordance with like/similar requirements listed in this EOI. The requirements identified are preliminary and may evolve for the final RFP.

Technology Need

The purpose of this EOI is to solicit interest for design, manufacture, test, and delivery of a specialized tool or tools and an integrated system for deployment to move debris in nuclear waste tanks. This debris includes loose steel tapes, tubes and pipes on top of the waste which simply need to be moved to other locations in the tank to access waste; and pipes, tie rods or other obstructions and debris buried in the waste, hanging from risers or attached to the tanks which will need to be cut and/or extracted from the waste. Interested parties are invited to submit an expression of interest letter to include a response to the following:
1. Describe similar tools and systems designed or manufactured within the past; applications and functions of the tools, tool performance and limitations, and a brief description of your quality assurance program.

2. Provide a rough design and description of recommended tools and deployment system(s) based on the following description and requirements.

3. Provide a written statement confirming the capability to provide a specialized tool or tools and deployment system to cut and move debris in nuclear waste tanks based on the following information, descriptions and requirements.

**Information Need:** Identify tools and system(s) to deploy tools to cut and move equipment or debris in nuclear waste Single-Shell Tanks (SSTs) (e.g. manual tapes, tie rods, pipe segments etc.).

**Application:** Need tool(s) to move debris on or near the floor of buried nuclear waste tanks so waste below risers can be sampled or so a path can be cleared for waste retrievals or for an in-tank vehicle such as an off-riser sampling system to move freely in a tank. Debris may be on or near the tank bottom or hanging from the top of a tank. Debris may be partially covered by hard dry waste and require tools with sufficient strength to extract debris from the waste.

**Description of Tool Systems:** The tools would be lowered through a riser and be able to reach directly below the riser and extend to reach up to 37 feet from the riser (~half the tank diameter, if possible; state maximum reasonable extension and weight, size and other limitations for different tool lengths). Tools will be attached to an extension arm and be interchangeable. Interchangeable tools (e.g grappling hook, scoop, cutter etc.) shall include functions to move, cut, and extract debris from waste in tanks (See Figures 1, 2 and 3). Debris will not be removed from the tanks.

Tank Riser diameters 4 to 12 in. Sched 40 pipe (Tools that can be deployed in a 4 in dia pipe preferred, state minimum access diameter needed).  
Riser lengths: 10 to 30 ft.  
Depth to tank bottom from top of riser: 40 to 55 ft.  
Tank diameter: 75 ft
Figure 1. Tank bottom debris in Tank 241-A-105
(3/8 in steel tape, cable and other debris).

Figure 2. Steel tubes in Tank 241-A-105.
Figure 3. Tank 241-A-104 Air lift circulator and tie rods
General Requirements:

a. The tool(s) and deployment system(s) must meet the functions and conditions described in this expression of interest.
b. The tools must meet applicable state and national requirements, codes and standards.
c. Tools and accessories shall be constructed of spark-resistant material and/or incapable of sparking or electrostatic charges with sufficient energy to ignite hydrogen in the dome space or waste and shall meet applicable NFPA regulations.
d. If tools require electrical connections the tools shall be capable of being connected to an electrical diesel generator and/or electrical distribution trailer.
e. All non-energized metallic objects shall be grounded and bonded to a ground plate for connection to the tank farm ground grid.
f. Tools shall have minimal maintenance requirements for operation and decontamination and easy access for maintenance.
g. Non-metallic materials, if any, shall meet TFC-ENG-STD-34, Standard for the Selection of Non-Metallic Materials in Contact with Tank Waste (attached).
h. Materials of construction must be compatible with nuclear waste
i. Tool accessories shall require minimal effort to attach and detach to minimize worker exposure time.
j. Tools must be anchored or supported to ensure stability in riser.

3. A rough order of magnitude (ROM) cost estimate for all elements of work necessary to design, manufacture, test and deliver the specialized tool(s) and system(s) to cut and move debris in nuclear waste tanks.

4. Provide a ROM schedule.

5. List qualifying conditions for cost and schedule ROM’s.

Note: A CONFIDENTIALITY AGREEMENT form is attached to this posting and must be completed and submitted to the Procurement Specialist prior to the issuance of specification to your company.

Vendor Responses

Please send all correspondence regarding this EOI to Katherine Fulton at Katherine_j_fulton@rl.gov

Please use EOI 2DB00-KJF-19-05-16 in the e-mail subject line. Katherine can be reached by telephone at (509) 376-6803. All questions need to formally submitted to the Procurement Specialist via email. Responses are due by June 17, 2019. Response to this EOI will be required to be considered in forthcoming Procurement(s) related to this EOI. WRPS will then
evaluate the expression of interests received, and make presentations and Recommendations to the Department of Energy (DOE). Selected firms shall be pursued with related solicitation(s).

**Closing Remarks**

Please be aware, this is not a Request for Proposal, but a request for an expression of interest. WRPS will not award a contract(s) based on this expression of interest, nor pay for information solicited. WRPS expects to issue an RFP at a later date. We look forward to hearing from you regarding our request.

Sincerely,

*Katherine Fulton*

Katherine Fulton, Procurement Specialist

Washington River Protection Solutions LLC

KJF:kjf
CONFIDENTIALITY AGREEMENT

In anticipation of being provided access to documentation related to performance of work by the Washington River Protection Solutions, LLC (WRPS) under the U. S. Department of Energy (DOE) Contract No. DE-AC27-08RV14800,

(Company Name) recognizes that the work is particularly sensitive and that one or more of its employees may have access to information, the unauthorized disclosure of which could cause significant damage to the interests of WRPS, its subcontractors and/or the DOE. (Company Name) is also aware that other information, which may or may not be proprietary to WRPS and its subcontractors remains business sensitive (e.g. financial data, documents marked competition or procurement sensitive, etc). Therefore, (Company Name) agrees to use appropriate measures, including signing a copy of this agreement, to assure that its employees will not disclose any information relating to the WRPS or its subcontractors work to anyone unless authorized in writing by the WRPS Contracting Officer to have access to such information, except pursuant to the order of a court of competent jurisdiction.

CONTRACTOR

_________________________________________
Signature of Authorized
Contractor Official

_________________________________________  _________________
Printed Name                                         Date