

March 2, 2015

Dear Interested Party:

EXPRESSION OF INTEREST (EOI) FOR ONE (1) TO TEN (10) HARD-HEEL OFF-RISER SAMPLING SYSTEM(s)

Washington River Protection Solutions (WRPS) - the Tank Operating Contractor (TOC) for the U.S. Department of Energy Hanford site – has an operating annual budget of \$500M US. The Hanford Site stores mixed radioactive and chemically hazardous waste in large underground tanks. Hanford has 149 older Single Shell Tanks (SST) and 28 newer double-shell tanks (DST) grouped together in tanks farms. The SSTs have capacities from 500,000 up to 1,000,000 gallons; and, measure up to 75' in diameter and 45' in depth. Multiple openings in the dome of the tanks (risers) provide access into the tank for operational activities.

Background

The SSTs have exceeded their design life and are being emptied of waste before closure. One of the requirements for tank closure is to sample the remaining waste. Since none of the waste retrieval options can remove 100% of the waste, sampling needs to be done after the retrieval limit is met. The remaining waste in the tank can be a liquid, solid, or sludge and all need to be sampled.

Current Approach

The previous sampling system has been deployed through the riser in the top of each tank. The sampler is lowered to the bottom of the tank where a sample is obtained and returned to the surface. The system has been able to collect liquid and sludge ('peanut butter') waste but fails when sampling solid (hard-heel or salt cake) material. This limitation is the catalyst for this expression of interest.

Technology Need

An off-riser sampling system (ORSS) is required that can be lowered into a tank and obtain a material sample - consisting of solid, liquid, or sludge – and return the sample to surface. A simplified tank layout diagram is shown below:

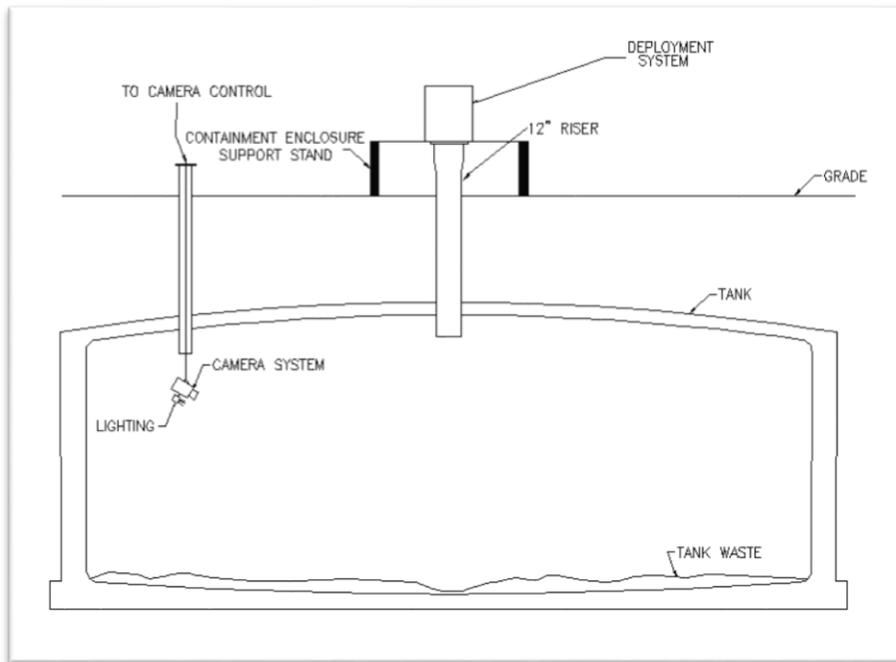


Figure 1: Simplified Tank Diagram

The ORSS must meet the following criteria:

- Samples solid, liquid, and sludge
- Fit thru 12 in. diameter pipe (riser at the top of the tank)
- Lowered 70 ft. to tank floor
- Move laterally on tank bottom up to 100 ft.
- Radiation tolerant design >2000 rad/hour
- Operation temperatures of 50° F to 200° F
- pH levels of 8 to 15
- Humid environment
- Must navigate rough terrain on tank bottom

As retrieval of the next series of tanks begins, timely procurement of complex retrieval hardware is required to meet critical schedule milestones. The purpose of this EOI is to solicit interest for fabrication of up to 10 Off-Riser Sampling Systems. Interested parties are invited to submit an expression of interest letter to include a response to the following:

1. A description of similar complex equipment fabricated in the past
2. A rough order of magnitude (ROM) cost estimate for all elements of work necessary to fabricate and deliver up to 10 completed and tested Off-Riser Sampling Systems
3. A rough order of magnitude schedule and any qualifying conditions for meeting that schedule

Vendor Responses

Please send all correspondence regarding this EOI to Michael Voss. Please use 2DB00-MWV-015-002 in the e-mail subject line. Responses are due by **April 15, 2015**. Response to this EOI is required to be considered in forthcoming procurements 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 will 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 within (2) two months of receiving expressions of interest.

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

Sincerely,

Michael Voss, Procurement Specialist

Procurement