

January 30, 2015

Dear Interested Parties/Offerors:

Request for an Expression of Interest – Participation in the Hanford Tank Farm Vapors Management Technology Exchange

The requested work is in support of Washington River Protection Solutions, LLC (WRPS) Prime Contract DE-AC27-08RV-14800 with the U.S. Department of Energy, Office of River Protection.

NEED

Washington River Protection Solutions, LLC (WRPS), a contractor to the US Department of Energy (DOE) Office of River Protection (ORP), is seeking interested parties to participate in a Technology Exchange for current and potential technologies/methods of detection, monitoring, and abatement to improve the tank farm vapor management system. WRPS will provide information on the tank farm vapor conditions to the extent that interested parties (i.e. technology service providers such as vendors, small business, universities, national laboratories, etc.) require to obtain a general understanding of the vapor issues. The informational sessions will be followed by a forum to solicit input relating to improving Hanford Tank Farm vapor detection, monitoring capabilities, and abatement solutions.

BACKGROUND

The Hanford Site tank farms contain millions of gallons of radioactive and chemical waste stored in underground tanks. The mission of the Department of Energy – Office of River Protection (DOE-ORP) and Washington River Protection Solutions (WRPS) is to “safely retrieve Hanford’s tank waste and close the Tank Farms to protect the Columbia River.” For additional information, visit the WRPS website at www.wrpstoc.com

The primary goals of the DOE-ORP and WRPS are to:

1. Safeguard our workers, the surrounding communities, and the environment;
2. Achieve the mission in full compliance with applicable regulations and requirements;
3. Implement the safest, most-efficient, and cost-effective methods to achieve the mission;
4. Develop a robust nuclear safety culture by practicing candid and open communications, mutual respect, a questioning attitude and positive and proactive collaboration.

The chemical vapor hazards management program is one example of WRPS implementing a comprehensive Integrated Safety Management System (ISMS). ISMS is a core guiding principle of WRPS for protecting the safety and health of the tank farm workers, the public, and the environment. WRPS established an independent Tank Vapor Assessment Team (TVAT) to

examine hazardous chemical vapors management, related worker protection measures, and recommend actions to eliminate or mitigate vapor exposures. The TVAT hypothesized that under certain conditions vapors coming out of tanks in high concentration (bolus) plumes sporadically intersected with the breathing zones of workers. WRPS has embarked upon a series of actions that respond to the TVAT recommendations including technology evaluation and deployment.

The tank waste generates vapors from a combination of thermal, chemical, and radiolytic processes. The specific technologies of interest are techniques which potentially improve the ability to detect and monitor the tank farm air-space for vapors and related conditions (i.e., meteorological, worker location and personal protection features). This increased understanding of the tank farm vapor conditions will allow for improved work planning to potentially reduce/preclude vapor exposures. The technologies may influence work planning during "unfavorable" vapor conditions, job-specific respiratory and personal protective equipment, and utilizing vapor related data for vapor condition trending analysis. In addition, improved abatement technologies for tank related vapor mitigation are being evaluated.

Broad participation in the Technology Exchange will provide the forum to frame the Hanford tank operation conditions and related vapor issues and to gather input from interested parties that may be able to assist in providing unique and/or novel detection/monitoring/abatement solutions. WRPS is especially interested in relevant technologies/methods that are currently in commercial use in similar applications and in discussing the specific capabilities with the technology provider(s) and/or knowledgeable participants.

TECHNOLOGY EXCHANGE DETAILS

Timing

The Technology Exchange is scheduled for 2/24 -2/25/2015 in the Tri-Cities, Washington, area. The Exchange will be held for 1-2 days depending on level of interest and logistics. The details will be firmly established and published by 2/5/2015. Interested parties are asked to respond to this expression of interest by 2/9/2015.

Location

The Technology Exchange will be held in the Tri-Cities (Kennewick-Richland-Pasco). The venue will be established based on the interest received, and the specific location will be communicated.

Exchange Content

The first morning of the Exchange will consist of WRPS presentations on the overall expectations/objectives of the event, the Hanford Tank Farm configuration, operating history, and specific tank vapor information and description of vapor related technologies currently in use. WRPS technical staff will conduct the presentation and provide for interaction (Q&A) with Exchange participants.

The afternoon of the Exchange will consist of a number of specific panel discussions. The panels will include WRPS technical and programmatic staff who will be available to discuss a broad range of vapor-related topics that are of interest to the Exchange participants. Currently, it is expected that the panel discussions will include the following:

Meteorological Panel Discussion

(i.e., wind direction, speed and wind fields, solar radiation, inversion layer, barometric pressure, temperature etc.)

Sampling Panel Discussion

(i.e., tank head space and tank farm air space)

Vapor Detection/Analysis Panel Discussion

(i.e., stacks, passive breather filters, fugitive emissions, specific and general work areas, worker breathing zone)

Personal Protective Equipment

(i.e., GPS, respirators, vapor detection/alarm, emergency air supply, etc.)

Vapor Abatement Panel Discussion

(i.e., dilution, chemical capture, destruction, etc.)

The evening will include a poster session for invited parties (primarily technology/equipment providers) to showcase their capabilities and to offer potential solutions that may be relevant to resolving Hanford related vapor issues. No electrical power will be provided to presenters at the poster session.

Continuing Interaction

The Exchange discussions and information will be evaluated by WRPS staff in the weeks following the Exchange and continued interaction with viable technology providers and interested parties will be scheduled. The extent of the follow-up to the Exchange event will be based on the information provided and WRPS interest in the capabilities and technologies presented in the panel discussions and poster sessions.

Additional considerations for attendees:

- Attendance at the Technology Exchange will be by invitation only. Invited responders will be notified by email/letter by 2/12/2015.
- Travel, lodging and all other expenses incurred by the Exchange participants will not be reimbursed by WRPS or the DOE.
- Post-Exchange interactions are at the sole discretion of WRPS.
- Those provided a poster session will be notified and provided details including the poster session requirements. The goal is for all interested parties to have the opportunity to participate. However, WRPS may need to limit the number of poster sessions based on the level of interest.
- There will be no Hanford Site access (i.e., site tours)

REQUEST

Interested parties are invited to submit an expression of interest to include a response to the following provisions:

1. A description of your interest in the tank vapor Technology Exchange
2. A description of your technology capability and hardware system. Clarifications required for participation in the Exchange. Related experience in vapor related detection, monitoring and abatement and whether your company has performed similar work, specifically for DOE.
3. Any other information that you believe would be useful in assisting WRPS to plan for the Exchange proceedings and described Exchange objectives.

This is not a Request for Proposal, but a request for an expression of interest. Please limit expression of interest responses to less than four pages of information. All responses must be received by WRPS no later than close of business 2/9/2015 5:00 pm via email at:

Email: John Robinson at John_M_Robinson@rl.gov

WRPS looks forward to hearing from you regarding this request.