

**U.S Department of Energy  
Office of River Protection**

**Tank Waste Management Acquisition(s)  
Post Fiscal Year 2018 Contract(s)**

**Welcome to Industry Day**



OFFICE OF  
**RIVER PROTECTION**  
United States Department of Energy



**Tank Waste Management Acquisition(s) Post Fiscal Year 2018 Contract(s)**

**Industry Day Information Packet**

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## LIST OF ACRONYMS

|        |   |
|--------|---|
| CBA    | Collective Bargaining Agreement                       |
| CTF    | Cold Test Facility                                    |
| DFLAW  | direct feed low-activity waste                        |
| DOE    | U.S. Department of Energy                             |
| EM     | Office of Environmental Management                    |
| EMCBC  | Environmental Management Consolidated Business Center |
| ETF    | Effluent Treatment Facility                           |
| FY     | fiscal year   |
| HAMMER | Hazardous Materials and Management Response           |
| HAMTC  | Hanford Atomic Metal Trades Council                   |
| HLW    | high-level waste                                      |
| LAW    | low-activity waste                                    |
| LAWPS  | Low-Activity Waste Pretreatment System                |
| LERF   | Liquid Effluent Retention Facility                    |
| NQA    | Nuclear Quality Assurance                             |
| ORP    | Office of River Protection                            |
| RFI    | Request for Information                               |
| TEDF   | Treated Effluent Disposal Facility                    |
| TF     | tank farm   |
| WRPS   | Washington River Protection Solutions, LLC            |
| WTP    | Waste Treatment and Immobilization Plant              |

## SOURCES SOUGHT/REQUEST FOR INFORMATION

Solicitation Number: **DE-SOL-0009439**

Title: **Office of Environmental Management, Office of River Protection – Tank Waste Management Acquisition(s) Post Fiscal Year 2018 Contract(s)**

THIS ANNOUNCEMENT IS A REQUEST FOR INFORMATION (RFI) ONLY. THIS IS NOT A REQUEST FOR PROPOSALS AND SHALL NOT BE CONSTRUED AS A COMMITMENT BY THE GOVERNMENT TO AWARD A CONTRACT.

No solicitation is available. This RFI is released pursuant to FAR 15.201(e), *Exchanges with Industry*, and is issued for the purpose of conducting market research.

The U.S. Department of Energy (DOE), Office of Environmental Management (EM) is currently in the acquisition planning phase for potential upcoming competitive procurement(s) for the environmental cleanup work at the DOE Hanford Site, hereafter referred to as “Tank Waste Management Acquisition(s) Post Fiscal Year 2018 Contract(s).” Established in 1943, the Hanford Site’s original mission was to produce plutonium for national defense. Operations to make the raw materials for nuclear weapons continued until the late 1980s. The waste remaining from those operations is a potential threat to human health and the environment including the Columbia River. In 1989, Hanford’s mission shifted from production of weapons material to waste management and environmental cleanup. The DOE Office of River Protection is responsible for safeguarding the nuclear waste stored in Hanford’s 177 underground tanks and to manage the waste safely and responsibly until it can be treated for final disposition.

The purpose of this RFI is to solicit input from interested parties with the specialized capabilities necessary to meet all or part of the requirements of the elements of scope for the upcoming competitive procurement(s) for “Tank Waste Management Acquisition(s) Post Fiscal Year 2018 Contract(s).” Information is provided on the EM Consolidated Business Center (EMCBC) Web site – <https://www.emcbc.doe.gov/SEB/ORPPPost2018/> – to assist industry with the preparation of interested parties’ capability statements (as defined later in this announcement). The information on the EMCBC Web site will be updated as it becomes available; therefore, interested parties should monitor the EMCBC Web site for additional information. Within these capability statements, DOE is seeking feedback from interested parties regarding options for innovative approaches for the performance of scope elements as well as insight into potential contracting alternatives to achieve the EM goals for “Tank Waste Management Acquisition(s) Post Fiscal Year 2018 Contract(s).”

Due to the preliminary stage of this planning activity, there is no statement of work available at this time. The anticipated number of procurements, types of contracts, periods of performance, amount of funding, or set aside possibilities are to be determined. The major elements of scope include, but are not limited to:

- Base Operations
  - Maintain and operate nuclear/radiological facilities:

- Tank farm (TF) single-shell and double-shell facilities
  - 242-A Evaporator facilities
  - Effluent Treatment Facility and support facilities
  - 222-S Laboratory complex
- Upgrade TF infrastructure to support feed delivery and effluent return
- Double-shell tanks space management
- Tank Integrity Program
- Vapor Implementation Plan Phase 2
- Maintain “One System” integrated management strategy for WTP/TF
- Potential technology improvements
- Tank Retrieval and Closure
  - Design, procure, permit, construct/fabricate, and operate single-shell tank retrieval systems that remove waste from single-shell tanks and transfer the waste to the double-shell tanks or treatment systems
  - Retrieve and treat contact handled transuranic tank waste
  - Regulatory closure activities
  - Install interim barriers
  - Perform waste management area tank closure activities
- Construction Projects
  - Design, permit, construct, commission, and/or operate:
    - Low-Activity Waste (LAW) Pretreatment System Facility
    - Tank Waste Characterization Staging Facility
    - Facilities to support direct feed high-level waste, if approved by DOE
    - Immobilized high-level waste storage facility
    - Potential new capital improvements
    - Miscellaneous support facilities for TF/WTP
- Miscellaneous Mission Requirements
  - Potentially operate portions of the WTP complex that support direct feed LAW and, if approved by DOE, direct feed high-level waste
  - LAW melter(s) replacement
  - Analytical services post-fiscal year 2020
  - Interface for site services
  - Legal support

- Pension and benefit plans.

DOE is also seeking interested parties with specialized capabilities necessary to successfully perform all or a portion of the elements of scope defined above to further determine whether or not all or a portion of the work can be set aside for small businesses, 8(a), Economically Disadvantaged Women-owned Small Businesses, women-owned small businesses, HUBZone small businesses, veteran-owned small businesses, or service-disabled veteran-owned small businesses. Small business teams or joint ventures shall identify the socio-economic status of each member and shall provide the capabilities of each member, as well as a description of the work that each member would perform under a contract, keeping in mind the requirements of FAR 52.219-14, *Limitations on Subcontracting*.

Capability statements should include the following information as appropriate and applicable:

1. Describe your approach (technical, management, regulatory, execution) to meeting all or a portion of the specific scope elements.
2. Provide a summary of experience and performance record covering the past 5 years. Identify all DOE, other government, or other commercial experience relevant to this RFI, specifically:
  - Nuclear material processing
  - Radioactive waste treatment/immobilization
  - Radioactive tank waste retrieval
  - Operating nuclear facilities, highly complex operating facilities, or both
  - Highly complex operating facilities
  - Working with stakeholders, tribal governments, citizens' advisory boards, and regulatory agencies at the state and federal level
  - Industrial hygiene monitoring
  - Extracting or transferring solid materials from underground storage tanks without sluicing
  - Highly radioactive liquid waste piping transfers
  - Capital asset construction.
3. Discuss your experience in implementation of environmental, safety, and health plans related to your (and any teaming partners) work on industrial facilities, nuclear facilities, or both. This discussion should address your approach to complying with federal and state laws, regulations, and government directives.
4. Discuss how you have implemented a safety culture within your organization.
5. Describe your experience in developing and implementing an effective quality assurance program and how you met NQA-1 requirements.
6. Identify potential areas within any elements of the scope that may be appropriate for a fixed price or indefinite delivery/indefinite quantity contract structure.

7. Give recommendations on what portions of the current scope provided that can be grouped together to make multiple contracts.
8. Describe your approach for contracting alternatives (e.g., number of procurements, types of contracts, periods of performance, set-aside possibilities, and incentives) for the provided scope elements.
9. Describe how you would separate portions of the current scope that would benefit small businesses.
10. Discuss your experience (or that of any teaming partners) in sponsoring employer pension and benefit plans at DOE or other government sites.

All interested parties are hereby invited to submit a capability statement, of no more than 20 double-sided pages in total, no smaller than 12-point font, **and no more than 20 megabytes (MB) total for an electronic transmission to: [ORPpost2018@emcbc.doe.gov](mailto:ORPpost2018@emcbc.doe.gov)**. The Government will review each capability statement based on the interested parties' (and that of teaming partners when applicable) demonstrated qualifications, capabilities, expertise, experience, and past performance in each of the scope areas specified to their area of interest and expertise. Interested parties are requested to provide each firm's name, point of contact, telephone number, email address, address of firm, CAGE Code, and DUNS Number.

The Government will not reimburse preparation costs nor otherwise provide compensation for any information that is provided in response to this announcement. All capability statements shall be submitted electronically to: [ORPpost2018@emcbc.doe.gov](mailto:ORPpost2018@emcbc.doe.gov), **no later than 12:00 p.m. Eastern Standard Time on Thursday, April 7, 2016**. Any questions pertaining to the announcement should also be directed to: [ORPpost2018@emcbc.doe.gov](mailto:ORPpost2018@emcbc.doe.gov). DOE personnel may contact firms responding to this announcement to clarify a responder's capabilities and other matters as part of this market research process.

In addition to this RFI, DOE plans to provide a site tour to interested parties planned for Tuesday, March 29, 2016. DOE also plans to conduct an up to 45-minute One-on-One Information Exchange session with each interested party, March 30–31, 2016.

Interested parties desiring to participate in the tour, the One-on-One Information Exchanges, or both, are requested to provide the firm's name, address, names of representatives, and contact information **no later than 12:00 p.m. Eastern Daylight Time on Friday, March 18, 2016** to: [ORPpost2018@emcbc.doe.gov](mailto:ORPpost2018@emcbc.doe.gov). Only United States citizens (no foreign nationals) are authorized to participate and space is limited to two representatives for each interested party. DOE will send the interested parties specific date, time, and locations for the tour and the information exchange session.

DOE reserves the right to use any and all information submitted by, or obtained from, an interested party in any manner DOE determines is appropriate, including, but not limited to, the creation of a competitive solicitation. Interested parties shall not include any classified information in its response. Also, an interested party should avoid including any business confidential, and/or proprietary information in its response. However, if an interested party must submit such information, the information must be clearly marked, and sufficient justification

provided as to why such information is business confidential and/or proprietary. DOE will review said information and safeguard it appropriately.



OFFICE OF  
**RIVER PROTECTION**  
United States Department of Energy

# **Tank Waste Management Acquisition(s) Post Fiscal Year 2018 Contract(s) Supplemental Information**



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## **ORP Acquisition Objectives/Goals**

**Award contract(s) (FY19–28) that will:**

- **Safely manage and operate a nuclear tank farm**
- **Protect the well-being and safety of our workers**
- **Support the construction, startup, and commissioning of Low-Activity Waste Pretreatment System (LAWPS)**
- **When operational, operate LAWPS in support of WTP Direct Feed**
- **Low-Activity Waste (DLAW) operations**
- **Seamlessly continue retrieval and waste tank closure activities during contract transition and to meet legal and regulatory requirements**
- **Advance tank waste mission activities through innovative approaches**
- **Develop/enhance workforce skills to meet future cleanup challenges**
- **Implement cost-saving innovative approaches**
- **Provide ORP with subcontractor and small business opportunities**
- **Have a strong, effective working relationship with labor unions**





## **Current ORP Contract: Tank Operations Contract**

- **Awarded to Washington River Protection Solutions (WRPS), LLC:  
May 29, 2008**
- **Completion Contract - Estimated completion date in contract:  
September 30, 2018**
- **Performance-based Cost-Plus-Award Fee contract**
- **Current available cost: \$5,660,100,535**
- **Current available fee: \$286,665,548**





## **Current ORP Contract (cont.)**

**Contract Line Items identified in the current Tank Operations Contract:**

- **Base Operations**
- **Single-Shell Tank Retrieval and Closure**
- **Waste Treatment and Immobilization Plant (WTP) Support**
- **Supplemental Treatment**
- **Early Feed and Operation of the WTP Low-Activity Waste (LAW) Facility**
- **Pension and Benefit Plans**





# FY19-FY28 Summary Work Scope

## Base Operations

- **Maintain and operate nuclear/radiological facilities:**
  - Tank farm single-shell and double-shell facilities
  - 242-A Evaporator facilities
  - Effluent Treatment Facility and support facilities
  - 222-S Laboratory complex
- **Upgrade TF infrastructure to support feed delivery and effluent return**
- **Double-shell tanks space management**
- **Tank Integrity Program**
- **Vapor Implementation Plan Phase 2**
- **Maintain "One System" integrated management strategy for Waste Treatment and Immobilization Plant (WTP)/tank farms**
- **Potential technology improvements**

## Construction Projects

- **Design, permit, construct, commission and/or operate:**
  - Low-activity waste Pretreatment System Facility
  - Tank Waste Characterization Staging Facility
  - Facilities to support direct feed high-level waste Immobilized high-level waste storage facility
  - Potential new capital improvements
  - Miscellaneous support facilities for tank farms/WTP

## Tank Retrieval and Closure

- **Design, procure, permit, construct/fabricate, and operate single-shell tank retrieval systems that remove waste from single shell tanks and transfer the waste to the double shell tanks or treatment systems**
- **Retrieve and treat contact handled transuranic tank waste**
- **Regulatory closure activities**
- **Install interim barriers**
- **Perform waste management area tank closure activities**

## Miscellaneous Mission Requirements

- **Potentially operate portions of the WTP Complex that support direct feed low-activity waste and, if approved by DOE, direct feed high-level waste**
- **Low-Activity Waste vitrification melter(s) replacement**
- **Analytical services post-FY20**
- **Interface for site services**
- **Legal support**
- **Pension and benefit plans**



## **Current Labor Picture: Work Covered by Davis-Bacon Act**

### **Hanford Contractors currently have one Project Labor Agreement (PLA) titled “Hanford Site Stabilization Agreement”**

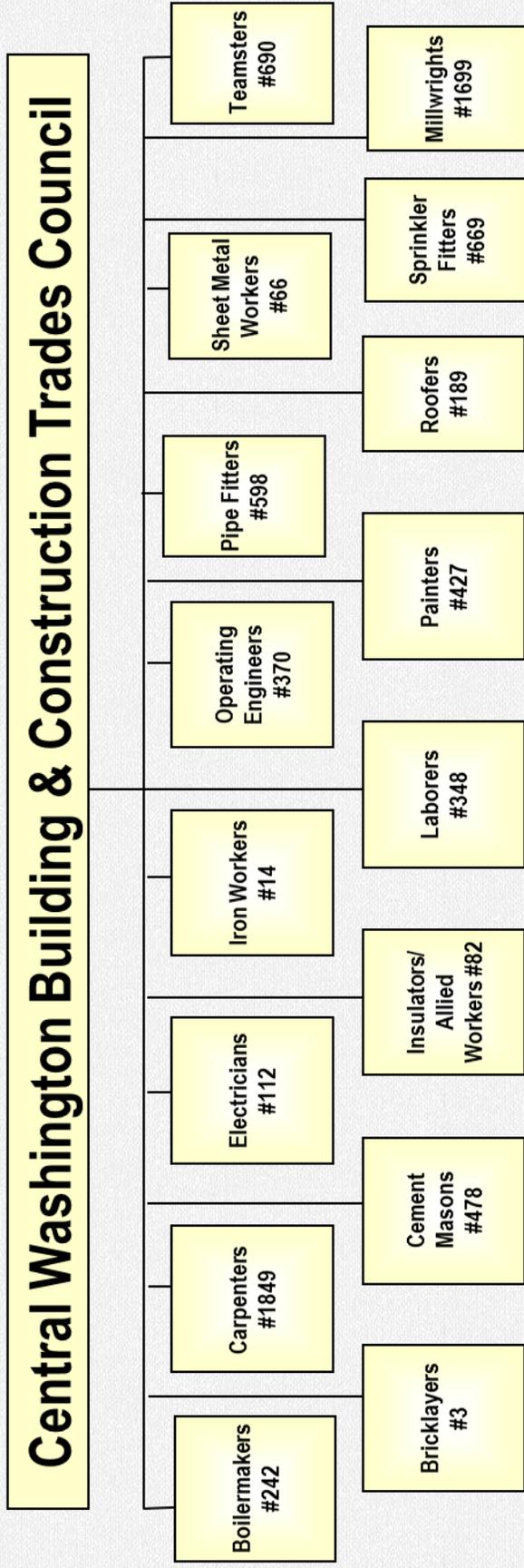
- Applies to employees performing work, under contracts (or subcontracts) administered by DOE-ORP which are subject to the Davis-Bacon Act
- Negotiated between signatory Hanford Contractors and Union Building and Construction Trades Department (AFL-CIO level)
- Establishes parameters for wage and fringe benefits; hours of work, shifts, and overtime; holidays, safety & health; and general working conditions
  - Building trades employees receive pension and benefit plans through the union
- Construction workforce is typically obtained through the local Building Trades hiring hall





# Current Labor Picture: Building & Construction Trades Structure

➤ Labor categories represented by the:





## **Current Labor Picture: Service Contract Act Covered Work – Labor Representation**

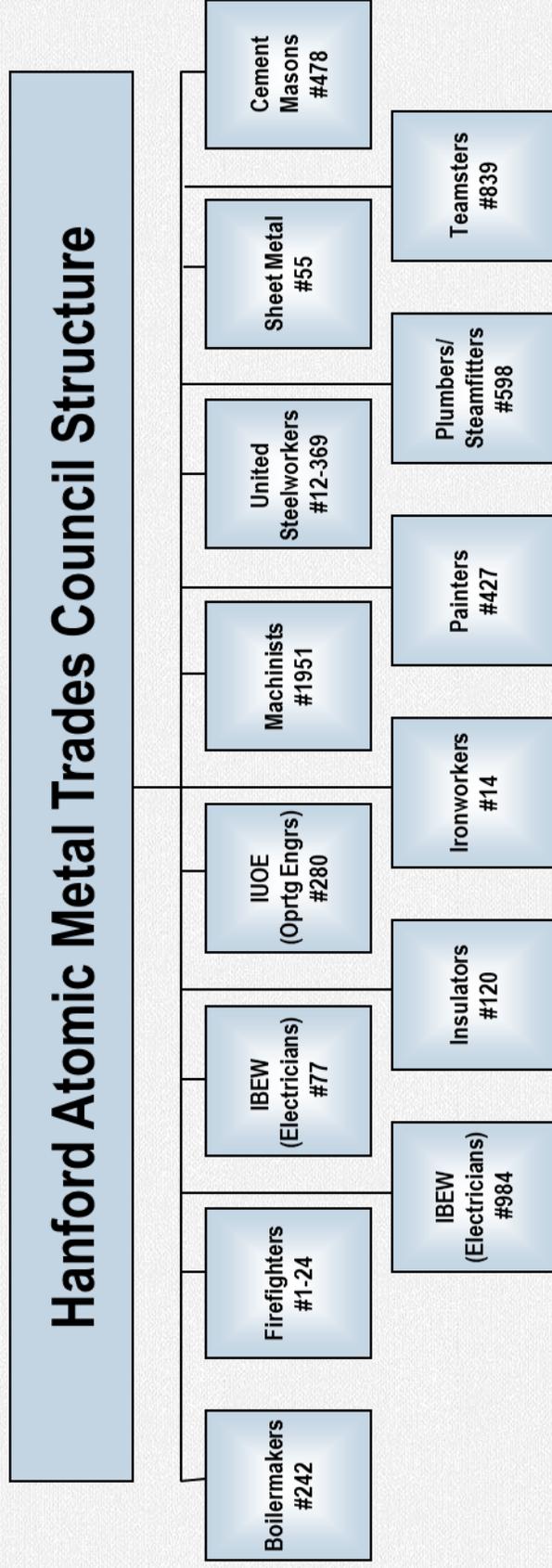
- Hanford Atomic Metal Trades Council (HAMTC), commonly called the “Metal Trades”
- Full-time workers (2015) with Washington River Protection Solutions (WRPS) represented by HAMTC: ~900
- Perform day-to-day operations and maintenance (vs. construction work covered by the Davis-Bacon Act)
- Collective Bargaining Agreements (CBA) currently in place
- If Successor Contractor hires majority of predecessor employees and there is not a significant change in the essential nature of the business, the new Contractor will be required to recognize HAMTC as the bargaining agent and negotiate a CBA
- Successor Contractor must comply with all provisions of the Service Contract Act





## Current Labor Picture: Metal Trades Structure

- Labor categories represented by the:





## Pension and Benefits

### Employees (Union represented and non-represented) fall under two categories

(2015 total: ~2,000 FTEs – WRPS only)

- Incumbent Employees as defined by the Contract
  - Hanford Site Pension Plan
  - Hanford Site Savings Plan
  - Hanford Employee Welfare Trust (Health Benefits)
- Non-Incumbent Employees as defined by the Contract
  - Market-based benefit plans for health benefits and retirement





## Pension and Benefits (cont.)

### Hanford Site Pension Plan is a Multi-employer Defined Benefit Pension Plan

Note: This is a “Multi-employer” Plan as opposed to a “Multiple Employer” Plan

- Contractors with Incumbent employees, as defined by the Contract will become sponsors and therefore fiduciary to the Plan
- Each sponsor is responsible for ensuring the IRS qualified status of the Plan
- Failure to maintain qualified status of an individual employer will result in:
  - Failure of the entire Hanford Site Pension Plan affecting all sponsoring contractors
  - Failure to maintain a qualified Plan will likely result in unallowable costs to the Contractor
  - DOE agrees to reimburse an amount equal to the Contractor’s Employee Retirement Income Security Act required minimum Plan contribution





## Pension and Benefits (cont.)

- **Other benefits**
  - Contractor benefit plans need to be sufficient to attract and retain qualified employees to meet the required elements of the Contract.
  - DOE intends to include Pension and Benefit H clauses in the draft Request for Proposal for industry input



## **Pension and Benefits Capability Statement**

The prospective contractor(s) will be required to participate in the Multi-employer Pension and Health and Welfare Benefits Plans for employees defined as “Incumbents” by the Contract. Prospective contractors will be expected to describe their experience in managing a multi-employer defined benefit pension plan. Additionally, prospective contractors will need to briefly describe their approach to establishing and maintaining a complicated pension and welfare (including Pension and Post-Retirement Benefits) benefit plans as well as their ability to obtain the expertise to establish and manage such plans. The approach will need to include how the prospective contractor has or will obtain access to expertise regarding compliance with Internal Revenue Service qualification requirements for complicated employee benefit plans.





## DOE-Office of Environmental Management Small Business Procurement Goals for FY 2016

➤ Environmental Management (EM) has established the following small business contracting goals for Fiscal Year 2016:

|   |              |
|---|--------------|
| ▪ Small Businesses .....                                | <u>Prime</u> |
| ▪ Small Disadvantaged Businesses .....                  | 7.15%        |
| ▪ Woman-Owned Small Businesses .....                    | 5.0%         |
| ▪ Service-Disabled Veteran-Owned Small Businesses ..... | 5.0%         |
| ▪ Historically Underutilized Business Zones .....       | 3.0%         |
|   | 3.0%         |

➤ In FY15 EM achieved 11.0% (\$531M) on a \$5.4B procurement base. The 11% included the first-tier subcontractors under EM’s Management and Operations contracts at Savannah River and Waste Isolation Pilot Plant. EM expects its FY16 procurement base to be approximately \$5.96B. The overall 7.15% in FY16 equates to about \$426M.





## Useful Links for More Information

### **Office of River Protection Prime Contracts**

<http://www.hanford.gov/page.cfm?page=712>

### **EM-CBC Tank Farms Management Acquisition(s) Post Fiscal Year 2018 Contract(s) Website**

<https://www.embc.doe.gov/SEB/ORPPost2018>

### **River Protection Project System Plan 6**

[http://www.hanford.gov/files.cfm/ORP-11242\\_REV\\_6\\_-\\_5B1110050954%5D.pdf](http://www.hanford.gov/files.cfm/ORP-11242_REV_6_-_5B1110050954%5D.pdf)

### **Hanford Lifecycle Scope, Schedule and Cost Report, 2016**

[http://www.hanford.gov/files.cfm/2016\\_LCR\\_Report\\_Appendices\\_Final\\_Draft.pdf](http://www.hanford.gov/files.cfm/2016_LCR_Report_Appendices_Final_Draft.pdf)

### **Tri-Party Agreement**

<http://www.hanford.gov/page.cfm/TriParty>

### **2010 Consent Decree**

<http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=1011110420>

### **Third Order Regarding Motion to Modify the Consent Decree (March 11, 2016)**

[http://www.hanford.gov/files.cfm/Hanford\\_-\\_FINAL\\_ORDER.PDF](http://www.hanford.gov/files.cfm/Hanford_-_FINAL_ORDER.PDF)

### **Amended Consent Decree Between the Department of Energy and State of Washington (March 11, 2016)**

[http://www.hanford.gov/files.cfm/Amended\\_CD1.PDF](http://www.hanford.gov/files.cfm/Amended_CD1.PDF)

## **INDUSTRY DAY TOUR, MARCH 29, 2016**

### **TOUR AGENDA**

- 7:00 a.m. Industry Day participants begin to arrive at Federal Building and are directed to the Visitor Control office for badging. After receiving their badges, participants gather in the auditorium
- 7:20 a.m. “Welcome to Industry Day” briefing in auditorium, given by Office of River Protection Deputy Assistant Manager Tank Farms Project, Glyn Trenchard
- 7:40 a.m. Welcome briefing ends. Participants are escorted to tour bus
- 7:45 a.m. Bus departs Federal Building for travel to Cold Test Facility. Participants are provided a Hanford overview en route
- 8:00 a.m. Bus arrives at Cold Test Facility where participants receive a briefing and a walkdown of the mock tank
- 9:00 a.m. Cold Test Facility tour ends. Group boards bus for travel to HAMMER Training Facility
- 9:05 a.m. Bus arrives at HAMMER Al Alm building where the group is escorted to the mask fit area for a briefing on training activities and opportunities
- 9:35 a.m. HAMMER visit ends. Group boards bus for travel to T Farm
- 10:10 a.m. Bus arrives at T Farm where group receives an on-bus briefing of interim surface barriers
- 10:20 a.m. T Farm briefing ends. Bus continues travel to 222-S Laboratory, driving past TY/TX Farms, U Farm and S Complex Farms en route
- 10:40 a.m. Bus arrives at 222-S Laboratory where group is provided a walking tour of the facility in PPE-free areas
- 11:40 a.m. 222-S Laboratory tour ends. Group boards bus for travel to 2704-HV
- 11:50 a.m. Bus arrives at 2704-HV for lunch
- 12:20 a.m. Lunch ends. Group boards bus for travel to 274-AW
- 12:30 p.m. Bus arrives at 274-AW where group is provided a tour of the facility, including the Incident Command Post and Central Control Room
- 12:50 p.m. 274-AW tour ends. Group boards bus for travel to 242-A Evaporator

- 12:55 p.m. Bus arrives at 242-A Evaporator where group is provided a tour of the facility, including the Control Room and Aqueous Makeup Room
- 1:25 p.m. 242-A Evaporator tour ends. The group then is escorted to the A/AX Farms (east fenceline) for a discussion on retrieval preparations. After retrieval discussion, viewing toward the Waste Treatment and Immobilization Plant (WTP) for additional brief discussion on the future Low-Activity Waste Pretreatment Facility
- 1:50 p.m. A/AX walkdown ends. Group returns to bus and boards bus for travel to C Farm. En route, the bus pulls to the side of the road at AY Farm for an on-bus briefing on retrieval activities
- 2:00 p.m. Bus arrives at C Farm where group receives an outside-the-fence briefing from the viewing platform and a visit to a control room
- 2:30 p.m. C Farm tour ends. Group boards bus for travel to Effluent Treatment Facility. Bus travels through B/BX/BY Farms complex en route
- 2:40 p.m. Bus arrives at Effluent Treatment Facility. Group receives a conference room briefing followed by a tour of the facility, including the Liquid Effluent Retention Facility basins
- 3:40 p.m. Effluent Treatment Facility tour ends. Group boards bus for travel to WTP
- 3:50 p.m. Bus arrives at WTP and is escorted around the perimeter of the construction site. Participants receive a briefing from a Facility Representative
- 4:05 p.m. WTP tour ends and bus continues travel to Federal Building
- 4:40 p.m. Bus arrives at Federal Building

**END OF TOUR**



## **Tank Waste Management Acquisition(s) Post Fiscal Year 2018 Contract(s)**

### **Industry One-on-One Meetings**

#### **What to Expect**

Welcome to the Industry Day One-on-One meetings with DOE for the Tank Waste Management Contract(s) Post Fiscal Year 2018 Acquisition(s). This brief guide will detail what to expect during your meeting.

The purpose of the meetings is to provide interested parties a better understanding of the Tank Farms mission and the facilities that support it, including eventual support of WTP operations; to highlight aspects of the Request for Information (RFI), and to encourage industry feedback to aid in developing resulting acquisition plan.

You will be met in the lobby of the Federal Building (825 Jadwin Ave.) and escorted to the conference room where the one-on-one session will be held.

Only two individuals from your company are allowed to participate. If more than two individuals are there representing your company, you will need to decide which two will participate.

The session format is as follows:

| <b><u>Session</u></b>        | <b><u>Participants</u></b> | <b><u>Duration</u></b> |
|------------------------------|----------------------------|------------------------|
| Introductions/Ground Rules   | All                        | 5 minutes              |
| Industry Presentation        | Invitee                    | 10 minutes             |
| Dialogue/Questions & Answers | All                        | 25 minutes             |
| Closing Comments             | All                        | 5 minutes              |

Details of expectations for each session are spelled out below.

#### **Introductions:**

After you are escorted to the meeting room, you will be introduced to the DOE team members and be explained the role of the note-taker. DOE's notes will not be shared with you but you are welcome to take your own notes – audio recording is not allowed.

There will be a short safety briefing (e.g., in case of emergency, follow the DOE team) and you will be asked to place your phones in silent mode. The team lead will also explain any “ground rules” for the meeting. Then you will be asked to introduce yourselves and start your presentation.

### **Industry Presentation:**

You will have 10 minutes to give your presentation. The timekeeper will give you five- and two-minute “warnings” so you can begin wrapping up your presentation and end on time. The DOE delegation will refrain from asking questions during the presentation to maximize the time allowed for you. Any questions will be saved for the Dialogue period.

### **Dialogue – One-on-One Questions and Discussion:**

There is 25 minutes set aside for the provided One-on-One Questions and discussion. The DOE team may also ask questions about your presentation. Please note that any technical questions about scope are answered on the RFI website (<https://www.emcbc.doe.gov/SEB/ORPPost2018>). Also, please keep the discussion focused on answering the questions that the DOE team asks.

### **Close-out:**

After any closing remarks from the DOE team, you will be escorted back to the waiting area and can then leave the building. If you have any visitor badges, please leave them with the DOE escort or return them directly to the Visitor Control office, located adjacent to the elevators.

DOE greatly appreciates your interest in the ORP Tank Waste Management Acquisition(s) Post Fiscal Year 2018 Contract(s) and looks forward to your feedback during the acquisition planning phase of procurement and throughout the pre-award process. DOE’s objective is to be as transparent as possible as we engage with industry and other stakeholders in a collaborative manner to achieve the best contractual outcome.

## **Industry Day One-on-One Meetings – Supplemental Questions**

(If preferred, DOE will accept written responses to the following questions as part of the Industry Exchange One-on-One Meetings. Please limit responses to one single-sided page per question.)

1. What suggestions do you have that could help you save money developing your proposal, but still allow the Department to adequately evaluate submissions and make an informed selection?
2. How would you suggest structuring the contract(s) to ensure a seamless continuation of retrieval and waste tank closure activities during contract transition to meet legal and regulatory requirements?
3. How can DOE encourage contractors to develop and deploy advanced technology and support subcontractors with their innovations?
4. How can DOE encourage contractors to develop, sustain, and enhance partnerships with local higher education institutions and communities, national laboratories, and federal training facilities?
5. What work scope could be a DOE-direct small business contract to help meet DOE's small business goal (see Supplemental Information packet, slide 15)?



Columbia River

### THE CHALLENGE:

56 million gallons of radioactive waste in 177 underground storage tanks



149 Single-Shell Tanks | 28 Double-Shell Tanks



LOCATION

### THE VISION

With the help of our world-class team, we will safely dispose of Hanford's radioactive waste by transforming it into glass at the Waste Treatment and Immobilization Plant.





# The Hanford Site TANK FARMS

*Protecting the legacy of the  
United States defense program*

## What are Tank Farms?

For more than 40 years, facilities at the Hanford Site produced plutonium critical to the nation's defense during World War II and throughout the Cold War. This effort resulted in the production of 56 million gallons of radioactive and chemical wastes, which are currently stored in 177 underground tanks. The tanks range in capacity from 55,000 gallons to over one million gallons.

The tank waste is a complex and diverse combination of radioactive and chemical waste that takes the physical form of sludges, salts and liquids with varying combinations of chemical properties. Much of the waste is stored in 149 aging single-shell tanks, first constructed in the mid 1940's. The remainder is stored in 28 double-shell tanks of newer construction. DOE has minimized the risk of waste leaking from the 149 single-shell tanks by removing pumpable liquids and transferring those liquids to the double-shell tanks. To date, DOE has retrieved the solid waste from 14 of the single shell-tanks and work continues on retrieving the waste from three additional tanks.

## Looking Ahead

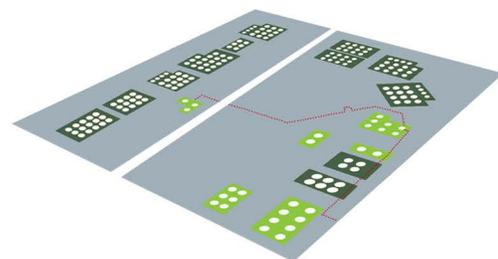
DOE is working toward the ultimate solution of treating and immobilizing the tank waste for permanent disposition. The Waste Treatment and Immobilization Plant (WTP) is a key component of that effort. It will allow for vitrification of radioactive waste, which means turning the tank waste into a solid glass form for disposal.

## TANKS BY THE NUMBERS

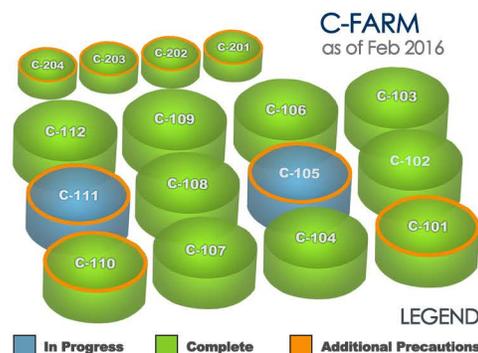


**149** SINGLE-SHELL TANKS  
Constructed 1943-1964

**28** DOUBLE-SHELL TANKS  
Constructed 1968-1986



## RETRIEVAL STATUS





UNITED STATES  
DEPARTMENT OF ENERGY

## OFFICE OF RIVER PROTECTION

# COLD TEST FACILITY

The Hanford Cold Test Facility (CTF), operated by Washington River Protection Solutions, is the test site for technologies that will be used in the safe management and cleanup of radioactive and chemical waste stored in underground storage tanks and to overcome Hanford's unique challenges to removing this waste from these tanks so the waste is no longer a threat to the environment. Challenges include:

- Tanks were designed to put waste in, not take it out
- Tanks contain multiple waste forms requiring specialized tools to remove each type
- Tanks have a number of obstructions inside, such as old equipment, instrumentation, etc.
- Tanks are buried under ten feet of soil and access is limited
- All work inside the tanks must be performed remotely

Constructed to replicate the majority of the older single-shell tanks found near the center of the 586 square-mile site, CTF is 75 feet in diameter, 27 feet high and can hold approximately 660,000 gallons of material, though it is not intended to ever be filled.

To overcome the issues inherent in waste removal we use the CTF to test hardware and train personnel who will operate the technologies. It is a non-radioactive environment where we can simulate tank waste conditions to determine whether a particular piece of hardware will function as intended without compromising the safety of our workers or the environment. The floor of the tank allows complete flexibility to simulate the tank waste environment. It can be partitioned into segments, allowing us to test equipment on the full range of liquids, sludges and even the concrete-like material that is found in the tanks.

Adjoining the CTF is the Joint Briefing Center where the Office of River Protection and WRPS can provide detailed information about tank waste management and retrieval operations to Hanford Site visitors. Technological advances and innovations made possible by the CTF are leading the way in nuclear cleanup operations.



*Hanford Site Cold Test Facility went into service 6/15/2002. This full-scale mockup of a single-shell tank provides a test platform for new and innovative technologies in a non-radioactive environment such as the examples pictured below.*



**Retrieval technologies to be used in waste retrieval efforts at the Hanford Site are observed at the Cold Test Facility.**

# The Hanford Site 242-A Evaporator

## Overview

The 242-A Evaporator is located in the 200 East Area of the Hanford Site and is critical to the safe management of Hanford's tank waste. It began operating in 1977 to reduce the volume of waste stored in Hanford's underground tanks.

The 242-A Evaporator is the only operating nuclear processing facility at Hanford. It operates under strict environmental regulations, stringent operational controls, and requires extensive maintenance and operator training to maintain the facility in a fully operable condition. In years where waste processing campaigns are not required to meet space management objectives, an evaporator "cold run" campaign is conducted using water instead of waste to ensure continued facility and systems operability, and to train and maintain the proficiency of operators.



**242-A Evaporator and surrounding area**

Since it began operating in 1977, the Evaporator has reduced the total volume of waste in Hanford's tanks by 67 million gallons, helping avoid the high cost of building new waste storage tanks.



**The 242-A facility is monitored closely by the operations staff in the Evaporator Control Room**

# The Process

Prior to processing waste through the Evaporator, the waste is extensively analyzed to determine its key constituents. This information is used to determine how the waste will behave both during and after the evaporation process and to determine how much water can be safely removed from the waste.

If acceptable for processing, the waste is pumped into the evaporator from nearby double-shell tanks via double-walled underground transfer lines. It goes into a sealed vessel where atmospheric pressure is reduced and steam heat is applied, boiling the waste at only 125 degrees F., much lower than it would under normal pressure. When the waste reaches a designated thickness, called specific gravity, the waste is transferred to a double-shell tank for storage. The evaporated water is captured, condensed, filtered, sampled and sent to the nearby Liquid Effluent Retention Facility, which further treats the liquid before disposal.

The evaporated water is captured, condensed, filtered, sampled and sent to the nearby Liquid Effluent Retention Facility, which further treats the liquid before disposal.

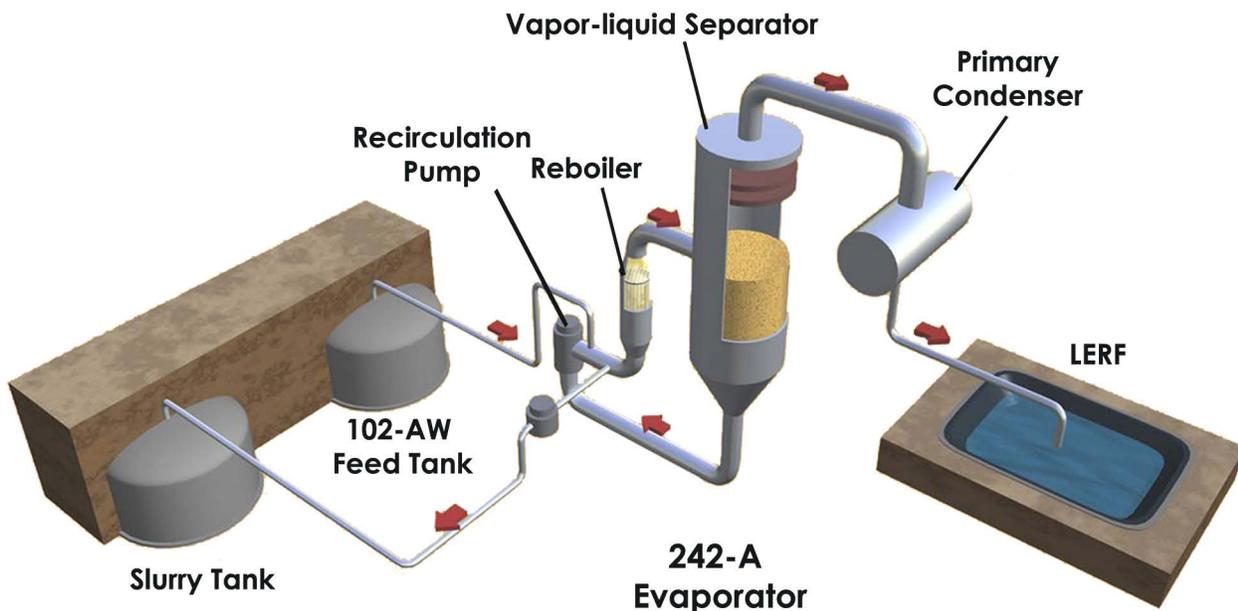
# Upgrades

In 1987 engineering and design studies were initiated to extend the operating life of the evaporator. In 1989 a series of additional changes were made to address environmental protection issues. Following facility modifications and upgrades the 242-A Evaporator was restarted in 1994. Since 1994 additional modifications and upgrades have been completed to extend the operating life of the facility. Recent upgrades, which include replacing the ventilation system and upgrading the monitoring and control system, will extend the operating life of the facility to 2034.



**The 242-A Evaporator at night**

## Evaporator Process Diagram





UNITED STATES  
DEPARTMENT OF ENERGY

**OFFICE OF  
RIVER PROTECTION**

# WASTE WATER TREATMENT FACILITIES

Operation and maintenance of the Effluent Treatment Facility (ETF), the Liquid Effluent Retention Facility (LERF), and the Treated Effluent Disposal Facility (TEDF) in the 200-East Area, along with about 45 employees, transferred recently from CH2M HILL Plateau Remediation Company (CHPRC) to Washington River Protection Solutions (WRPS).

ETF has been in operation for 20 years, treating effluent from the 242-A Evaporator and water contaminated with low levels of radioactive and chemical waste, primarily from groundwater treatment systems, waste disposal operations, and Hanford's K Basins.

The LERF has three storage basins for waste waters from a number of Hanford sources, including 242-A Evaporator operations and solid waste disposal facilities. The LERF is designed to hold about 23 million gallons of waste water.

The ETF receives waste water from the LERF and treats it to remove radioactive and hazardous contaminants. Once the waste water has been treated, it is stored until tests confirm the liquid is acceptable for discharge at the State Approved Land Disposal Site. The ETF can treat up to 28 million gallons of waste water each year.

The TEDF accepts treated non-radioactive, non-hazardous effluent collected via pump stations located in the 200 East and West Areas. Treated effluent received at TEDF is discharged to two state-approved infiltration basins.



*Effluent Treatment Facility (foreground) and Liquid Effluent Retention Facility*



*Treated Effluent Disposal Facility*

*Tank Farm operations at the 242-A Evaporator and when operational, the Waste Treatment and Immobilization Plant will be the key liquid waste feed generators for the facilities in the near future. Therefore, the transition of these facilities was undertaken to better align with Hanford's mission.*

***More than twelve miles of polyvinyl chloride piping connects facilities throughout the Site to TEDF's state permitted disposal basin in the 200 East Area of Hanford.***



UNITED STATES  
DEPARTMENT OF ENERGY

**OFFICE OF  
RIVER PROTECTION**

## ***222-S LABORATORY COMPLEX***

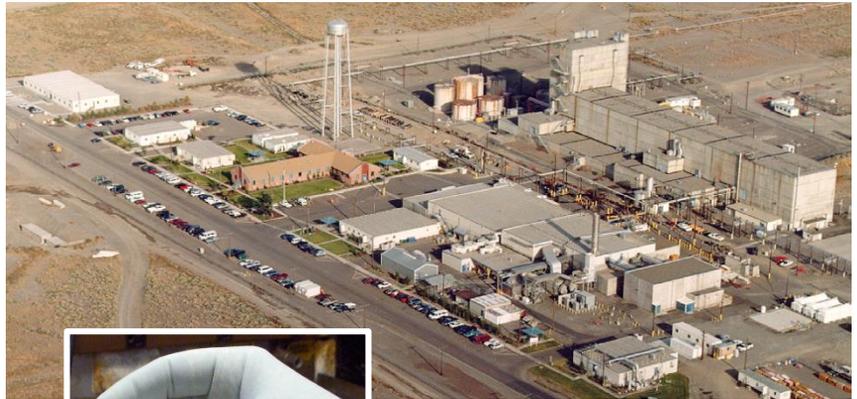
The 222-S Laboratory complex in the 200 West Area of the Hanford Site is the primary on-site lab for analysis of highly radioactive samples in support of all Hanford projects.

The 222-S Laboratory originally began operations in 1951 as the process control laboratory for the REDOX plutonium separations plant. The laboratory has undergone a series of upgrades and expansions, including a hot-cell addition in 1994, reconstruction of the exhaust ventilation system in 2004, and heating and ventilation system upgrades in 2013.

The 222-S Laboratory complex includes the 70,000-square-foot laboratory plus several support buildings. The lab has 11 hot cells for remotely handling and analyzing radioactive samples such as tank waste. Inorganic, organic and radiochemical analyses are performed on a wide variety of air, liquid, soil, sludge and biota samples.

Laboratory instrumentation for inorganic analysis includes an inductively coupled plasma/mass spectrometer system (ICP/MS), two ICP/AES (atomic emission spectrometers), carbon analyzers, thermal scanning calorimeters, differential scanning calorimeters, ion chromatographs and thermal gravimetric analyzers. For organic analyses, the laboratory has gas chromatograph mass spectrometers (GC/MS) and liquid/liquid extractors. For radiochemical analyses, the lab is equipped with liquid scintillation counters, alpha/beta proportional counters, and gamma and alpha energy analyzers.

The laboratory is expected to operate until 2030 in support of the Hanford cleanup mission. The major customer is the River Protection Project for tank waste characterization and support of retrieval, feed preparation and waste treatment. The laboratory also supports other Hanford contractors and projects such as the Spent Nuclear Fuel Project and the Central Plateau Closure Project.



***222-S Laboratory complex***



***Chemical analysis at 222-S***



***Workers remotely handle highly radioactive samples***

***The laboratory plays many roles, which include testing of waste compatibility and physical characteristics to support tank-to-tank waste transfers, performing corrosion rate studies and chemical testing to support tank corrosion inhibition, and providing input to the engineering specifications for each of the 242-A Evaporator campaigns.***

***The 222-S Laboratory complex contains over 100 pieces of analytical equipment, 156 fume hoods, and 46 manipulators to perform work.***

# The Hanford Site LAWPS

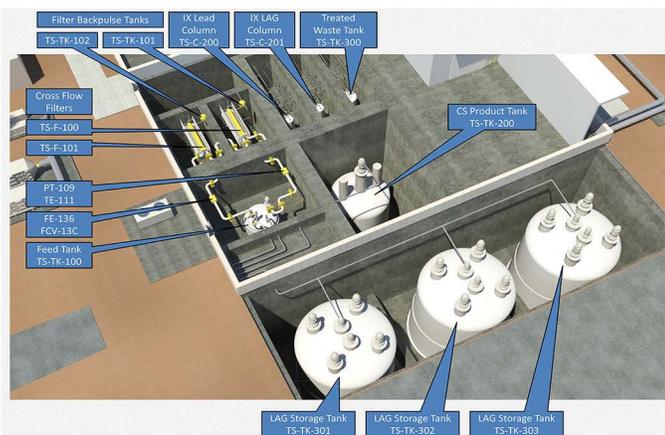
## What is the Low-Activity Waste Pretreatment System?

The Department of Energy's (DOE) path forward to treat most of the tank waste is through vitrification at the Waste Treatment and Immobilization Plant. WTP technical issues have significantly slowed completion of design and construction of the Pretreatment Facility and High-Level Waste (HLW) Vitrification Facility.

The Department has proposed to feed low-activity waste directly to the LAW Facility in order to facilitate the earliest treatment of low activity waste. LAWPS was identified as a needed component of the Direct Feed LAW (DFLAW) option. To provide the pretreatment function for DFLAW, ORP has designed the Low-Activity Waste Pretreatment System facility. LAWPS will remove suspended solids and cesium from double shell tank liquids to provide the LAW feed to the WTP LAW facility.

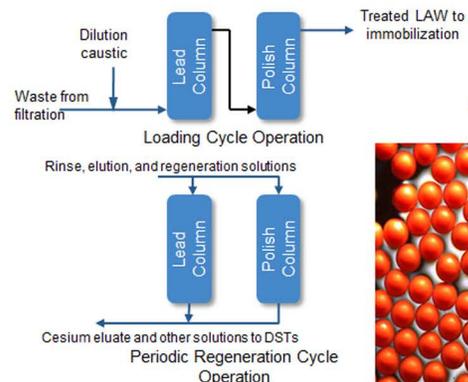


### LAWPS PROCESS EQUIPMENT IN VAULT

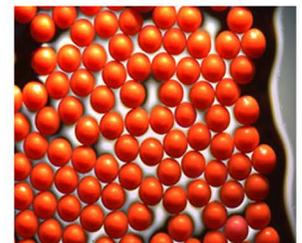


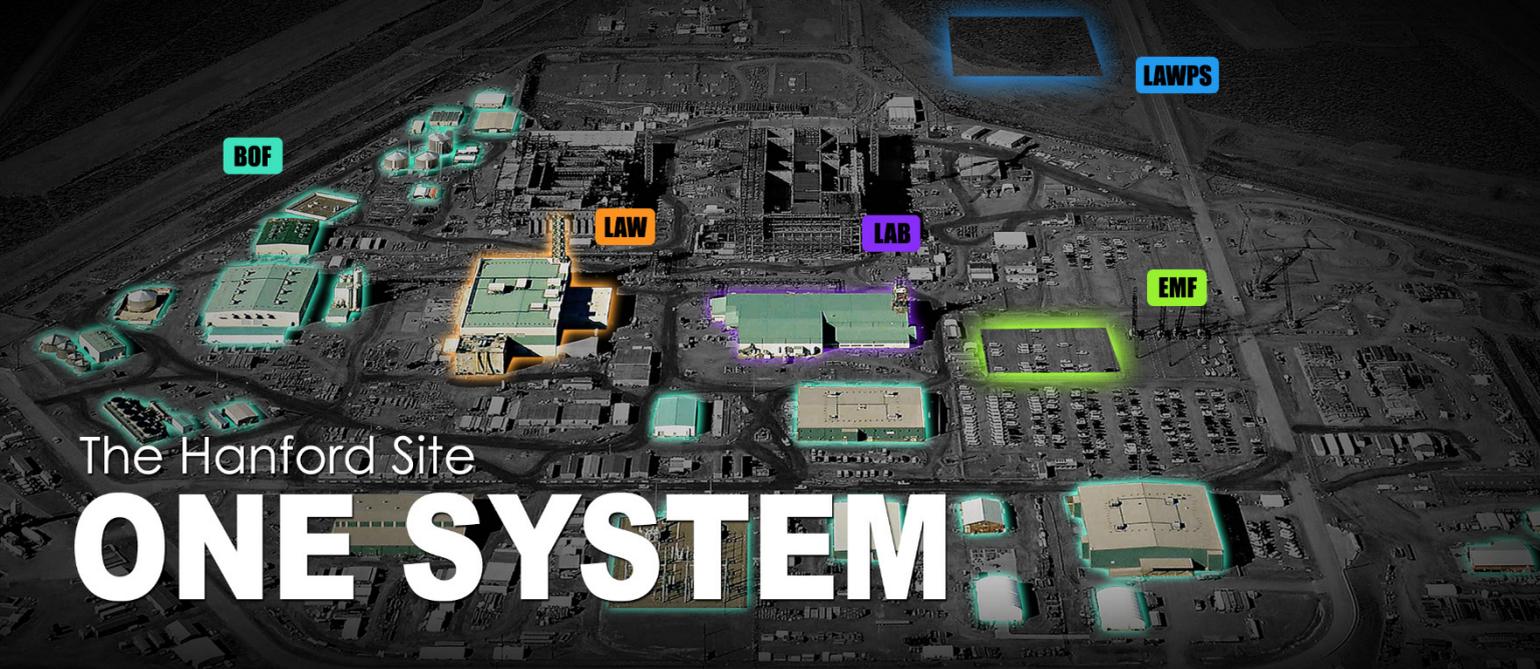
### ION EXCHANGE

**SOLIDS AND CESIUM REMOVED THROUGH ION EXCHANGE**



**sRF Resin**





The Hanford Site

# ONE SYSTEM

## What is One System?

The One System organization is an integrated team leading or performing key planning, analysis, and integration activities necessary to successfully and efficiently complete the Hanford tank waste treatment and disposition mission.

The team includes participation from Department of Energy (DOE) Office of River Protection (ORP), Washington River Protection Solution (WRPS) and Bechtel National Inc. (BNI) employees; as well as integration with national laboratory partners; Wastren Advantage Inc. which runs the 222-S Laboratory; the Richland Operations Office, Mission Support Alliance, the Hanford sitewide services contractor; and CHPRC, the environmental cleanup contractor.

The high-level primary mission objectives of One System are to support and integrate the following:

- ✓ **Mission analysis and planning**
- ✓ **Flowsheet integration**
- ✓ **WTP startup, commissioning and operations integration activities**
- ✓ **Project integration and controls**



LOW-ACTIVITY WASTE FACILITY

BALANCE OF FACILITIES

ANALYTICAL LABORATORY

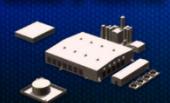
INTEGRATED DISPOSAL FACILITY

LOW-ACTIVITY WASTE PRETREATMENT SYSTEM

EFFLUENT MANAGEMENT FACILITY

DFLAW

LAW CONTAINERS



OFFICE OF RIVER PROTECTION  
United States Department of Energy



# ONE SYSTEM STRATEGIC OBJECTIVES

## » INTEGRATION

To establish prioritized sets of fully integrated activities and timing to integrate Tank Farms and WTP to meet DOE objectives for startup and commissioning of WTP

## » CONTRACT ALIGNMENT

To identify DOE directives and contract changes needed to align the WRPS and BNI contracts and establish an optimum or necessary time to have each item aligned

## » TRANSITION

To recommend actions to more effectively or efficiently conduct the transition to startup, commissioning and operations

## » FLOWSHEET MANAGEMENT

To establish long-term Tank Waste Disposition Integrated Flowsheet stewardship and technical management involving national laboratories

## » SYSTEM PLANNING

To provide for the integration of Tank Farms and WTP system planning and modeling, with a focus on the WTP feed vector and waste feed qualification requirements

## » INTERFACE CONTROL

To manage the WTP Interface Control Documents

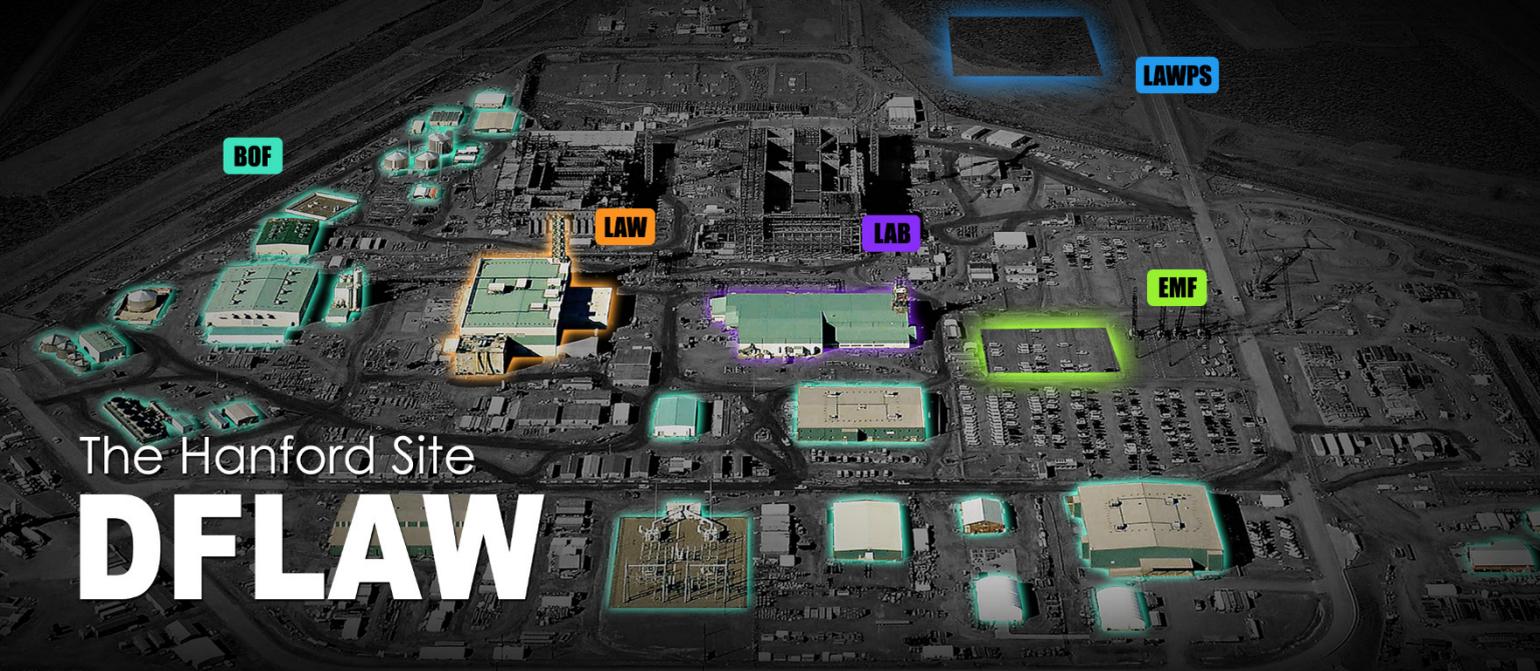
## » SKILLS REQUIREMENTS

Integration of recruitment, selection, education, and training of skilled manual and non-manual employees required to support Direct-Feed Low-Activity Waste construction, startup, and commissioning, and initial hot operations

**One System has implemented the following management tools to drive progress:**

- Integrated DFLAW flowsheet
- Integrated DFLAW schedule
- Integrated permitting schedule
- Integrate DSA schedule
- Interface controls documents
- Secondary waste stream strategy
- Risk and Opportunities Management Plan
- Technology roadmap
- Performance Metrics





# The Hanford Site DFLAW

## What is Direct Feed Low-Activity Waste?

For more than 40 years, facilities at the Hanford Site produced plutonium critical to the nation’s defense during World War II and throughout the Cold War. This effort resulted in the production of 56 million gallons of radioactive and chemical wastes, which are currently stored in 177 underground tanks. The tanks range in capacity from 55,000 gallons to over one million gallons.

The tank waste is a complex and diverse combination of radioactive and chemical waste. Much of the waste is stored in 149 aging single-shell tanks, first constructed in the mid 1940’s. The remainder is stored in 28 double-shell tanks of newer construction. DOE has minimized the risk of waste leaking from the 149 single-shell tanks by removing pumpable liquids and transferring those liquids to the double-shell tanks. To date, DOE has retrieved the solid waste from 14 of the single shell-tanks and work continues on retrieving the waste from three additional tanks.

DOE’s path forward to treat the tank waste is through vitrification at the Waste Treatment and Immobilization Plant. Currently, WTP technical issues have significantly slowed completion of design and construction of the Pretreatment Facility and High-Level Waste (HLW) Vitrification Facility.

In order to facilitate the earliest treatment of low activity waste, the Department has proposed to feed low-activity waste directly to the Low-Activity Waste vitrification facility at WTP through a sequenced approach called Direct Feed Low-Activity Waste. This process will allow DOE to begin a treatment of the LAW as soon as 2022 while work continues to resolve the issues associated with PT and HLW.



# DFLAW TARGET '22

Mt. Adams

Mt. Rainier

## INTEGRATED DISPOSAL FACILITY (IDF)

Accepts containers of vitrified low-activity waste for long-term disposal



## TANK FARMS

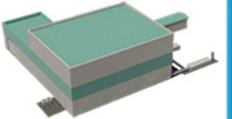
Waste stored and maintained until ready for treatment at the Waste Treatment & Immobilization Plant



» Complete Tank Farm upgrades and place new infrastructure to support waste feed delivery to LAWPS

## LAW PRETREATMENT SYSTEM (LAWPS)

Separates high-level waste from low-activity waste for feeding to LAW



## EFFLUENT MANAGEMENT FACILITY (EMF)

Treats the liquid effluent from the Low-Activity Waste Facility



## LOW-ACTIVITY WASTE FACILITY (LAW)

Mixes LAW feed with glass-forming materials; vitrifies for storage in containers



## BALANCE OF FACILITIES (BOF)

20 buildings providing support for operation of Waste Treatment & Immobilization Plant complex



## ANALYTICAL LABORATORY (LAB)

Sampling of low-activity waste feed to ensure meets chemical standards



## DIRECT-FEED LOW-ACTIVITY WASTE (DFLAW)

Process vitrifies low-activity waste into stable glass form for permanent disposition



GLASS

## TARGET DATES

2017

2019

2019

2020

2020

2020

2022

2022

LOW-ACTIVITY WASTE FACILITY



BALANCE OF FACILITIES



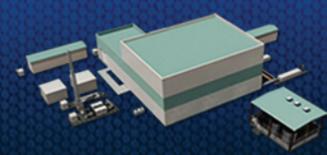
ANALYTICAL LABORATORY



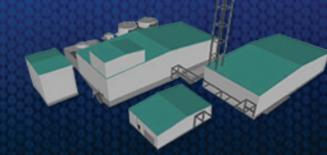
INTEGRATED DISPOSAL FACILITY



LOW-ACTIVITY WASTE PRETREATMENT SYSTEM



EFFLUENT MANAGEMENT FACILITY



DFLAW



LAW CONTAINERS





In early 1943, residents of a sparsely populated area in southeastern Washington state, now known as the Hanford Site, were suddenly evacuated, and the Manhattan Project moved in. The mission of the top-secret government project was to produce plutonium for a new weapon that promised to bring a swift end to World War II.

More than 50,000 people, most who did not know what they were producing, worked at Hanford during its peak. In July 1945, Hanford plutonium was used in the world's first atomic blast, the Trinity Test. Weeks later, Hanford's secret became known following the detonation of the plutonium bomb over Nagasaki, Japan, and the end of World War II.

Hanford then played a key role during the decades-long Cold War era, as the site's mission to produce plutonium continued in support of national defense programs. At its peak, Hanford had nine operating nuclear production reactors and a massive network of chemical processing and other facilities. Plutonium production was halted in 1989 as the Cold War concluded.

## CONSTRUCTION FACTS

**Concrete:** 262,000 cubic yards, enough to fill 26,200 concrete trucks

**Structural steel:** 40,000 tons, the equivalent of four Eiffel Towers

**Heating and ventilation ductwork:** 2,100 tons

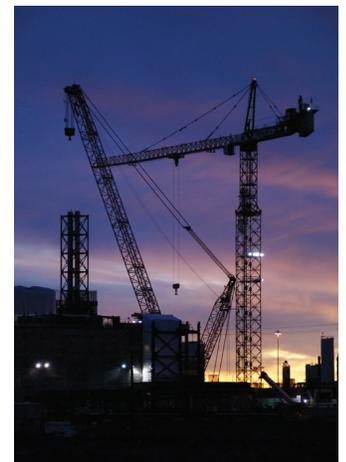
**Piping:** 1,017,000 linear feet, if laid end-to-end, would stretch more than 193 miles

**Electrical cable:** 4,762,000 feet, if laid end-to-end, would stretch more than 900 miles



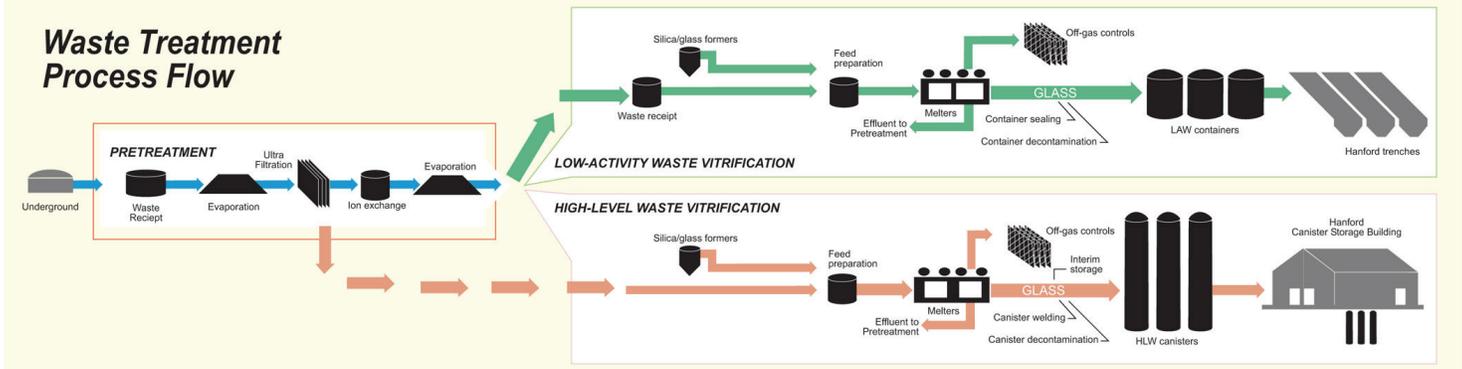
The Hanford Site, located in southeastern Washington state, was the largest of three defense production sites in the U.S. Over the span of 40 years, it was used to produce 64 metric tons of plutonium, helping end World War II and playing a major role in military defense efforts during the Cold War. As a result, 56 million gallons of radioactive and chemical wastes are now stored in 177 underground tanks on the Hanford Site.

To address this challenge, the U.S. Department of Energy contracted Bechtel National, Inc., to design and build the world's largest radioactive waste treatment plant. The Waste Treatment and Immobilization Plant, also known as the Vit Plant, will use vitrification to immobilize most of Hanford's dangerous tank waste. Vitrification involves blending the waste with molten glass, heating it to high temperatures, then pouring it into stainless steel canisters. In this glass form, the waste is stable and impervious to the environment, and its radioactivity will dissipate over hundreds to thousands of years.



The Vit Plant will cover 65 acres with four nuclear facilities – Pretreatment, High-Level Waste Vitrification, Low-Activity Waste Vitrification and an Analytical Laboratory – as well as operations and maintenance buildings, utilities and office space. Site preparation began in October 2001, and the concrete for the first nuclear facility's foundation was placed in July 2002.





## PRETREATMENT

The first treatment step in the waste treatment process is pumping the waste from the underground storage tanks through a buried pipeline to the Pretreatment Facility. Pretreatment separates the low-activity radioactive waste from the high-level radioactive waste.

Low-activity waste is the liquid portion of the tank waste. It contains a relatively small amount of radioactivity in a large volume of material.

High-level waste is primarily in the solids of the tank waste. It contains most of the radioactivity in a relatively small volume of material.

During pretreatment, the waste is concentrated by removing water in an evaporator. Solids are filtered out, and remaining soluble highly radioactive isotopes are removed by ion exchange units.

## LOW-ACTIVITY WASTE VITRIFICATION

The pretreated wastes go to separate Low-Activity Waste and High-Level Waste Vitrification Facilities. Handling the wastes separately speeds treatment because high volumes of low-activity waste can be processed faster than the high-level waste.

The waste goes into a melter preparation vessel where silica and other glass-forming materials are added and the mixture is fed into one of two melters. The mixture is heated to 2,100 degrees Fahrenheit by passing electricity through it, a process known as joule heating. The molten mixture is then poured into large stainless steel containers.

The filled low-activity waste containers are four feet in diameter, seven feet tall and weigh more than seven tons. The containers will be stored at Hanford in permitted trenches covered with soil.

## HIGH-LEVEL WASTE VITRIFICATION

High-level waste from the Pretreatment Facility is mixed with glass-forming materials and vitrified in two melters of similar design to the low-activity waste melters.

High-level vitrified waste is poured into stainless steel canisters that are 2 feet in diameter and about 14 feet tall. The filled high-level waste canisters, each weighing more than four tons, will be temporarily stored at Hanford. Eventually, the high-level waste containers will be shipped to a federal geological repository deep underground for permanent disposal.





**HA**zardous **MA**terials **M**anagement and **E**mergency **R**esponse (HAMMER) is the Department of Energy's premier, hands-on, health and safety training center.

Owned by the Department of Energy (DOE) Richland Operations Office (RL), under the Office of Environmental Management (EM), and managed by Mission Support Alliance, LLC, the Volpentest HAMMER Federal Training Center was dedicated in 1997. HAMMER represents a partnership of Federal, Tribal and State governments, Labor, the Tri-City Development Council, academia, and industry. These partnerships are maintained through the HAMMER Steering Committee.

HAMMER maintains a collection of robust subject matter expertise and has become a critical resource to national and global customers. With this knowledge-based pool of expertise, HAMMER has the ability to provide complex-wide consultation and mentoring on a wide array of activities from worker safety to non-proliferation issues.

HAMMER manages nationally recognized health and safety training programs, including a unique and highly effective worker-trainer program, construction worker safety training program, and DOE complex-wide occupational health training programs. HAMMER collaborates with:

- Office of Environmental Management (EM)
- Richland Operations Site Office (RL)
- Office of River Protection (ORP)
- Pacific Northwest Site Office (PNSO)
- Office of Enterprise Assessments (EA) and its National Training Center (NTC)
- Office of Electricity Delivery and Energy Reliability (OE)
- National Nuclear Security Administration (NNSA).

The Secretary of Energy is institutionalizing the HAMMER/NTC model across the DOE complex. This partnership is known as Department of Energy Training Institute (DTI). DTI provides complex-wide support for:

- reciprocity
- common core training
- instructor certification program
- training tools and techniques.

HAMMER's 88-acre, state-of-the-art, unbadged campus is located on the edge of the Hanford Nuclear Reservation in southeastern Washington state. HAMMER has:

- specialty training areas
- numerous life-sized training props
- modern classrooms
- computer-based training room
- safety library.

HAMMER successfully utilizes hands-on, performance-based training techniques with proven results. HAMMER's props allow students to train in a realistic but controlled and safe environment. HAMMER's training props are configured to create a variety of scenarios:

- radiological safety
- industrial hazards
- emergency response
- hazardous materials
- other worksite occupational health scenarios.

## HAMMER

- Trains to save lives and avert disasters.
- Is more than a training center; it's a knowledge bank for networking, process building, and pioneering Hanford's sitewide standards.
- Is an internationally recognized learning institution with a wealth of subject matter experts, worker-trainers, and realistic training environment.
- Provides comprehensive support to customers and promotes an environment of collaboration and cooperation.
- Actively supports the safety performance of its partners, customers, and community with a dynamic integration of training and safety culture.
- Is a model formula for successful training based on a collaboration between management and organized labor.
- Is an efficient, innovative learning organization where the management and staff are doers – problem solvers.
- Gained DOE Voluntary Protection Program (VPP) Star Status in 2002 and proudly maintains Superior Star.

*"HAMMER is helping to make sure workers have the safety training, and the capability of knowing what they are doing on the job, so that their lives are protected every day."*

**Patty Murray, US Senator WA-D**

*"We can learn from HAMMER."*

**Dr. Ernest J. Moniz, Secretary of Energy**

*"We greatly value the service of the men and women working to achieve EM's cleanup mission. We can only advance this important mission together if we provide employees with the right tools and training. Bringing the unique tenets of EM's HAMMER facility at Hanford to the entire cleanup complex represents an exciting opportunity to establish a renewed national vision for safety training that will enable EM to safely achieve its mission across the nation."*

**Dr. Monica C. Regalbuto, Assistant Secretary  
Office of Environmental Management (EM)**

*"Together, NTC and HAMMER will enhance the DOE like never before. Together, we will do for all of DOE what HAMMER has done for Hanford."*

**Glenn S. Podonsky, Director  
Office of Enterprise Assessments (EA)**

*"HAMMER has the best in class worker-trainer model providing knowledge and preparedness as one of our core commitments to our workers."*

**Stacy Charboneau, Manager  
Richland Operations Office (RL)**

*"HAMMER's worker-trainer program is a very effective way to train our workers. The best training often comes from those who have hands on experience and there is no better boost to one's personal work skills than to teach others how to do the work."*

**Kevin Smith, Manager  
Office of River Protection (ORP)**

*"I see HAMMER as a beacon showing the way for collaboration among diverse groups that come together for worker health and safety."*

**Pat Finley, General President  
Operative Plasterers' and Cement Masons' International**

*"HAMMER's partnership is about WORKER SAFETY. It is training that saves lives."*

**Eric Dean, General President  
International Association of Bridge, Structural, Ornamental  
and Reinforcing Iron Workers**

*"President John Sweeney designated 'HAMMER as one of the most important Partnerships of Labor and Management in this country' (at HAMMER's dedication in 1997). Today, I reaffirm that designation."*

**Richard Trumka, President  
AFL-CIO**

*"The partnership that has made this HAMMER facility a dream come true; that the Tribes can have a part of it, be a part of it; the local communities, the states, the universities, the unions, and the government agencies ... an unimaginable alliance."*

**Bill Burke, Chief, Walla Walla Tribe  
Confederated Tribes of the Umatilla Indian Reservation**

*"I think it is important that DOE and contractors remain vigilant in making sure that HAMMER is available and capable of supporting the Site. The most high-risk, challenging work is still ahead."*

**Michael C. Hughes, Manager  
Bechtel National Inc.**

HAMMER partners include:

- U.S. Department of Energy
- U.S. Department of State
- U.S. Department of Transportation
- U.S. Department of Defense
- U.S. Department of Health
- U.S. Environmental Protection Agency
- U.S. Department of Homeland Security
- U.S. Department of Labor
- Northwest Tribal Governments
- Washington and Oregon
- AFL-CIO and Affiliates
- Hanford Site Contractors
- Tri-City Development Council
- Pacific Northwest National Laboratory
- Regional Academia



Dedicated as the **Volpentest** HAMMER Federal Training Center in 1997 by Al Alm, Former Assistant Secretary, Office of Environmental Management, HAMMER continues to honor Sam Volpentest for his lifetime commitment to the community and his tireless efforts to make HAMMER a reality.

In 1963, Sam co-founded the Tri-City Development Council (TRIDEC), recognized as one of the leading economic development groups in the Pacific Northwest, and served as its executive vice president until his passing in 2005 at the age of 101. Sam was a founding member of the HAMMER Steering Committee, and was an active leader in community affairs and in efforts to diversify the Hanford Site and surrounding communities.

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