

**HANFORD TANK WASTE TREATMENT
AND
IMMOBILIZATION PLANT**



**BIDDER REQUEST FOR INTEREST &
PRE-QUALIFICATION PACKAGE**

OFFICIAL USE ONLY (when completed)

May be exempt from public release under the Freedom of Information Act
(5 U.S.C. 552), exemption number and category: 4.

Commercial/Proprietary

Department of Energy Review required before public release

Name/Org: Jose Velasquez/ P&S Date: 12/28/2023

Guidance (if applicable): N/A

Requisition No. 24590-QL-MRA-MV00-00005

High Efficiency Mist Eliminator (HEME)

OFFICIAL USE ONLY (when completed)



**BIDDER REQUEST FOR INTEREST & PREQUALIFICATION
CRITERIA AND RESPONSE**

1.0 Introduction

Bechtel National Inc., herein referred to as Contractor, intends to issue a Request for Proposal (RFP) for a **Plant Equipment** Purchase Order for the Hanford Waste Treatment and Immobilization Plant (WTP) project in Richland, WA. Companies must be pre-qualified by Contractor to be included on the bid list. To support the pre-qualification evaluation process, the prime potential bidder (1st tier subcontractor) must provide the requested information and respond to questions within this document. The Experience Statement should include relevant information for both the prime bidder and any planned lower-tier supplier or subcontractor. Additional supporting documentation such as brochures and company profiles may also be submitted.

***Please note that additional supporting documentation will be required as part of the formal RFP process.**

2.0 Project Description and Location

The Hanford Tank Waste Treatment and Immobilization Plant (WTP) is a complex of radioactive waste treatment processing facilities designed and constructed by Bechtel National, Inc. for the Department of Energy (DOE). The facility will process the Hanford Site tank waste and convert the waste into a stable glass form.

The Project site is located in the 200 East Area of the Hanford Reservation near Richland, Washington, along the Columbia River. The site elevation varies from 662 to 684 feet above mean sea level. Ambient temperature range is -23 degrees F minimum to 113 degrees F maximum, with relative humidity of 5% minimum to 100% maximum. The project design life is 40 years.

Information about the WTP Project can be found on <http://www.hanfordvitplant.com>.

3.0 Scope of Work

Award Type: **FIRM FIXED PRICE with Economic Price Adjustment**
Estimated RFP Date: **June 2026**

The scope of work includes the labor, materials, equipment, and services necessary to fabricate **four (4)** High Efficiency Mist Eliminator (HEME) vessels (Figure 3-1). The HEME vessels are designed to be a semi-passive device designed for removal of radioactive mists and dissolved solids. The removal is accomplished by flowing the offgas through a glass fiber filter bed. The HEME removes particulates and radioactive aerosols of less than one micron from the vent stream at a high efficiency in order to minimize solids loading on the high efficiency particulate air (HEPA) filters downstream.

The primary components of the HEME are the HEME pressure vessel, the internal filters, its support skirt, and its mounting base assembly. The HEME will be located in a remote location so all pipe connections will be done using jumpers and remote handling techniques.

The HEME filters shall be designed for remote changeout and a service life of 40 years under the following specified conditions:

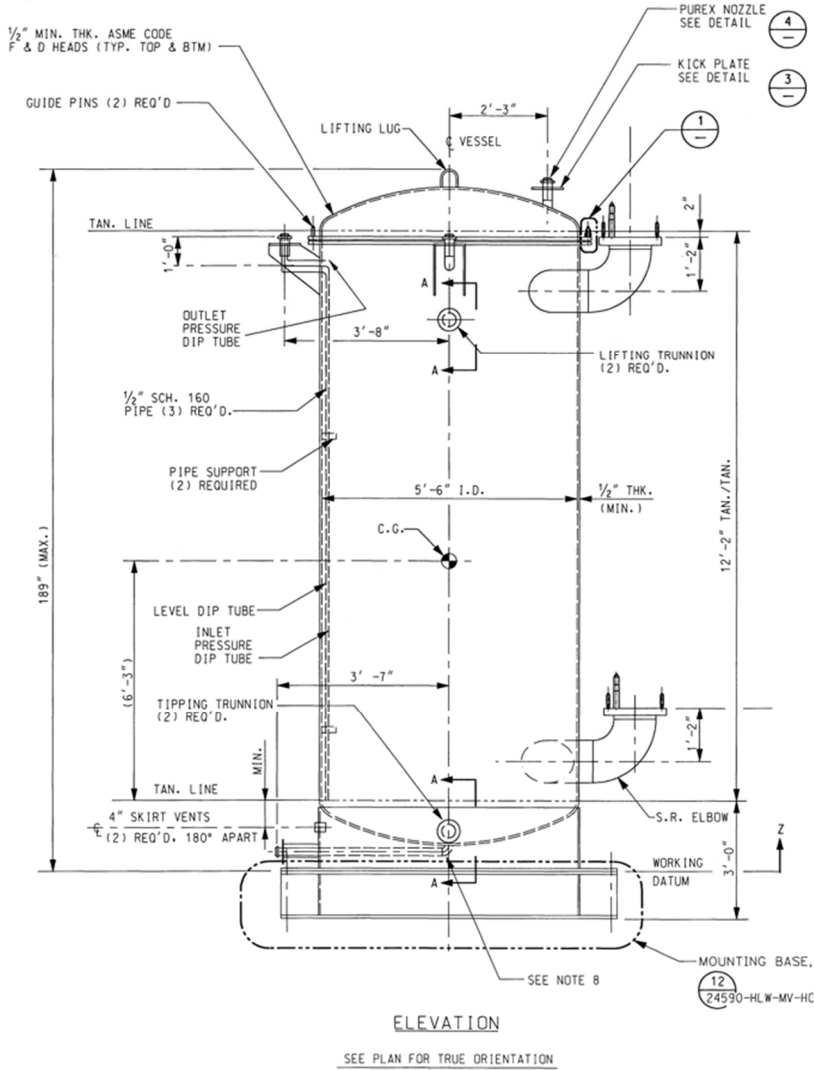
Quality Level / Seismic Category	Q / SC-III
Service/Contents	Radioactive Mist & Particulate
Total Integrated Dose (TID)	5E+7 Rad
Inside Diameter	66 in.
Length/Height (TL-TL)	146 in.

OFFICIAL USE ONLY (when completed)



BIDDER REQUEST FOR INTEREST & PREQUALIFICATION CRITERIA AND RESPONSE

Figure 3-1: HEME Elevation View



3.1 Work to be included:

The HEME filter elements shall be designed to satisfy the following parameters:

A. Design Data

Service/Contents	Radioactive Mist & Particulate
Design Specific Gravity	1
Maximum Operating Volume (ft ³)	0
Total Volume (ft ³)	289

OFFICIAL USE ONLY (when completed)



**BIDDER REQUEST FOR INTEREST & PREQUALIFICATION
CRITERIA AND RESPONSE**

Inside Diameter (inch)	66
Length/Height (TL-TL) (inch)	146
Internal Pressure (Max Operating/Design) (psig)	0 / 15
External Pressure (Max Operating/Design) (psig)	2.5 / FV
Temperature (Max Operating/Design) (°F)	132 / 200
Min. Design Metal Temp. (°F)	32

- The filter element shall be Koch type BD, Monsanto type HE or ES, or an engineering approved alternative.
- The filter element material shall be glass fiber with 2 to 3 inches bed depth.
- The filter element shall be capable of withstanding a pressure drop across the vessel of up to 40 inches water gauge (w.g.) while maintaining its structural integrity.
- The HEME vessel shall have provision to periodically irrigate the HEME filter element assemblies, at the top elevation, to create a downward flow of wash water in the filter media. Irrigation rate shall be 70 to 100 gallons per hour of water for the entire vessel. The total flow rate shall be divided between each filter element assembly, and evenly distributed at the top elevation of each filter element assembly.
- Each filter element assembly shall be capable of being remotely disassembled into five (5) individual segments. Each segment shall have dimensions not to exceed 24" long by 18" O.D. and be completely interchangeable. The maximum dimensions shall be inclusive of filter media and any flanges or lifting bails.

Submission of a detailed inspection and testing plan. The plan shall identify all inspection and testing and hold/witness points. When the operation requires a procedure, the procedure number shall be designated on the plan.

B. Equipment and Materials Required:

Component	Material
Top Head/Shell/Bottom Head	SB 688 (N08367)
Internals	SB 688/SB 462/SB 690 (N08367)
Support	SA 240 304
Pipe	SB 690 (N08367)
Forgings/ Bar stock	SB 564 (N08367)
Gaskets	EPDM
Bolting	SA193 B8

OFFICIAL USE ONLY (when completed)



BIDDER REQUEST FOR INTEREST & PREQUALIFICATION CRITERIA AND RESPONSE

3.2 Codes and Standards:

Applicable Codes and Standards include, but are not limited to:

- ASME Boiler and Pressure Vessel Code Section VIII Division I, *Rules for Construction of Pressure Vessels*, American Society of Mechanical Engineers (ASME).
- ASME Boiler and Pressure Vessel Code Section II, *Materials*, American Society of Mechanical Engineers.
- ASME Boiler and Pressure Vessel Code Section V, *Nondestructive Examination*, American Society of Mechanical Engineers.
- ASME B31.3, Process Piping
- AISC M016, ASD Manual of Steel Construction
- AWS D1.6 Structural Welding Code – Stainless Steel.
- ASME NQA-1-2000 (Part I and Part II, Subpart 2.7 only), Quality Assurance Program Requirements for Nuclear Facility Applications.
- ASME NQA-1-2004 (Part 1, Requirement 7, Section 700 only), Quality Assurance Program Requirements for Nuclear Facility Applications.

Please note that this solicitation may result in material procurements and proposals greater than \$10,000 and must comply with FAR 52.225-11 Buy American Act – Construction Materials Under Trade Agreements (SEP 2010). If you cannot comply or foresee any issues with compliance, please provide a detailed explanation.

If your company is **interested** in this solicitation, please **proceed to Section 4.0** and complete the below sections as requested. The BNI Acquisition Services Purchasing group is responsible for collection, evaluation, and internal publication of potential bidders' information for the purpose of pre-qualification for all solicitations.

4.0 Response Submittal

4.1 Submission Due Date: **3/30/2026**

Submission Method: Submissions must be received no later than the due date to the Purchasing Representative, Andrea Riste, via email at adriste@bechtel.us. For questions, call (509) 430-9055.

5.0 Pre-Selection Criteria

5.1 Company Response

Prime Subcontractor Company Name:	
Address:	
Pre-qualification Contact Name:	
Phone Number:	
E-mail Address:	
DUNS No. (Dun & Bradstreet):	

OFFICIAL USE ONLY (when completed)



**BIDDER REQUEST FOR INTEREST & PREQUALIFICATION
CRITERIA AND RESPONSE**

5.2 North American Industry Classification System Code (NAICS)

The NAICS (North American Industry Classification System code for this work is **334210**. The SBA size standard for this code is **500 employees**. For pre-qualification purposes, you are a small business if your company’s employees do not exceed **500**.

Business Size Classification (according to U.S. Small Business Administration Criteria)	<input type="checkbox"/> Small
	<input type="checkbox"/> Small Disadvantaged Business
	<input type="checkbox"/> Woman Owned Small Business
	<input type="checkbox"/> HUBZone Business
	<input type="checkbox"/> Veteran-Owned Small Business Concern
	<input type="checkbox"/> Service-Disabled Veteran-Owned Small Business Concern.
	<input type="checkbox"/> N/A – Registered as a Large Business

5.3 Quality Assurance Requirements Program

Programmatic Quality Assurance (QA) requirements for this purchase orders will be in accordance with Supplier QA program, please mark as applicable:

<input type="checkbox"/>	Commercial Quality - Based on DOE Order 414.1C
<input type="checkbox"/>	Nuclear Level Quality - Based on ASME NQA-1 2022

A. Does your Company have a written Quality Assurance Program?

Yes No

B. Which QA standards does this program meet? _____

DOE/RW/0333P ASME NQA-1 ASME Section VIII ISO-9000 Other

C. If selected “other” above, please furnish a copy of your QA Program Table of Contents and a brief summary identifying each of the requirements listed below. The level of rigor applied to the elements shall be commensurate with the risks associated with the Work.

- A description of the organizational structure, functional responsibilities, levels of authority, and interfaces for those managing, performing, and assessing the Work.
- Personnel Training and Qualifications
- Quality Improvement
- Control of Documents and Records
- Work Processes
- Design
- Procurement
- Product Identification and Traceability

OFFICIAL USE ONLY (when completed)



BIDDER REQUEST FOR INTEREST & PREQUALIFICATION CRITERIA AND RESPONSE

- Inspection and Acceptance Testing
- Control of the Testing Equipment
- Control of Non-Conforming Product
- Corrective and Preventative Actions
- Handling, Storage and Shipping Procedures
- Management Assessment
- Independent Assessment

D. Your company has the option to submit their full Quality Assurance Plan with this interest.

5.4 Commercial Data

Potential bidders are required to register on the Bechtel Supplier and Contractor Portal: <https://www.Bechtel.com/supplier/> to be considered.

Date your company registered or updated its information on the Portal?

Date Updated: _____

A. Rough Order of Magnitude for Scope of Work (USD): \$ _____

B. Estimated Delivery Schedule:

- i. Engineering/Design: _____ weeks ARO
- ii. Material Procurement: _____ weeks ARO
- iii. Fabrication: _____ weeks ARO
- iv. Delivery: _____ weeks ARO

C. Are there long lead items to be aware of (if yes, please specify)?

D. Does your company have a suggested alternate offering/product that offers an improvement, is more cost effective, or offers shorter delivery (i.e. "buy what you make")?

No, we will supply an identical or similar product.

Yes, we have an alternate offering. If so, please provide.

E. What risks do you foresee with this procurement that BNI should be aware of and possibly help mitigate? _____

5.5 Technical Criteria

A. Question: Has your company previously provided equipment for the application (or similar application) described above?

Yes No

OFFICIAL USE ONLY (when completed)



**BIDDER REQUEST FOR INTEREST & PREQUALIFICATION
CRITERIA AND RESPONSE**

- B. Direct Relevant Experience Documentation. provide a reference list of example projects over the last ten years, on the included Experience Statement, that demonstrate direct relevant project experience to support a “yes” response. Example projects should be detailed as to both the technical scope of the project and your participation in the project.

Column completion notes for the below, Experience Statement, to be completed by the Prime contractor:

- A. Customer Name, Address, Contact Name and Phone No.- So that we may contact as a reference as needed.
- B. Work Description and Location- Describe work scope and location, and then indicate if prime or subcontract.
- C. Original/ Final Contract Value- Original award value and final closeout contract value.
- D. Commencement/Completion Dates- Provide starting date and actual completion (or forecast if still in progress) by month/year format (e.g., Jan 2006/Sept 2007)

Customer Name, Address, Contact Name and Phone No.	Work Description and Location	Original/Final Contract Values	Commence/ Complete Dates

6.0 Pre-Qualification Document Checklist

Companies are encouraged to use this checklist to ensure their submittal is complete.

OFFICIAL USE ONLY (when completed)

COMPANY NAME: _____



BIDDER REQUEST FOR INTEREST & PREQUALIFICATION CRITERIA AND RESPONSE

- Interest & Prequalification Criteria and Response Package (this document)
- Additional supporting documentation such as brochures and company profiles.
- Direct Relevant Experience Documentation (included in this document or provided as attachment)

OFFICIAL USE ONLY *(when completed)*

This page intentionally left blank.

OFFICIAL USE ONLY *(when completed)*