

# HANFORD TANK WASTE TREATMENT AND IMMOBILIZATION PLANT



## BIDDER REQUEST FOR INTEREST & PRE-QUALIFICATION PACKAGE

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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-CM-MRA-MP00-00001**

## **Cerium Nitrate Pumps**

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## 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 (1<sup>st</sup> 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: **May 2026**

**A complete construction of 2 (two) centrifugal pumps capable of pumping a Cerium Nitrate Solution.**

The goal of providing this Request for Interest (RFI) package in advance of the anticipated solicitation date is to proactively engage Suppliers that may intend to bid on the scope of work outlined in this request. The WTP project intends to produce specifications and requirements documents for procurement award that closely align with standard commercial applications, for those items that do not have a nuclear safety function. WTP encourages feedback from interested Suppliers relative to things that can reduce delivery duration, item complexity, and unplanned costs from awarded value (examples: Document submittals that are in excess of what would normally be required for commercial application, special tests that duplicate available data, excessive oversight, size of requirements document set, and conflicts in specifications).

We encourage interested Suppliers to contact WTP (per website contact info/directions) to set up meetings with WTP engineering and procurement staff to ask questions, discuss areas that could be adjusted to simplify the procurement process, resulting in a fit for purpose specification that aligns with what the supply chain produces (buy what they make) and recommendations for how best to develop a mutually beneficial collaborative partnership.

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### 3.1 Work to be included:

Delivery of 2 (two) centrifugal pumps meeting the following requirements:

#### A. Fluid Characteristics

Fluid/solution Composition	Cerium (IV) Nitrate 20-25%, Water >70%, and Nitric Acid <5%.
Pumping Temperature (°F) Min / Normal / Max	66 / 75 / 80
Specific Gravity	1.11
Vapor Pressure (psia)	0.4
Viscosity (cP)	0.91
Density (lb/cf)	69
pH	0.1

#### B. Both pumps must be able to operate under the following operating conditions:

Capacity (GPM)	2.5
Discharge Pressure (psig)	10
Max Suction pressure (psig)	88.79
Normal Suction pressure (psig)	1.92
Differential Pressure (psi)	9.91
Differential Head (ft)	12.31
NPSH Available (ft)	29.31
Hydraulic Horsepower (HP)	0.0144
Max system Design Pressure (psig)	93.29

#### C. Room Conditions:

Location	Indoor / Heated
Temperature (°F) Min / Max	50 / 95

D. In addition to the operating requirement listed above, both pumps must have the following physical and electrical characteristics:

- Suction Connection 1" (NPT)
- Discharge Connection 3/4" (NPT)
- All surfaces exposed to the Cerium Nitrate Solution must be constructed out of suitable materials chemically resistant to the pumped fluid.
- No ferrous metals may contact the wetted surfaces
- The motor shall be 1/2 HP or smaller, single-phase 120 V
- The ambient dose for the installed pumps is 175 Rad, based on 40 year plant operations estimate

### 3.2 Codes and Standards

- ASME: B73.1, B31.3, and As Applicable
- API: As Applicable

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Please note that any solicitation resulting in material procurements and proposals greater than \$15,000 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: 1/31/2026 (or as extended)**

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

### 5.0 Pre-Selection Criteria

#### 5.1 **Company Response**

Prime Subcontractor Company Name: \_\_\_\_\_

Address: \_\_\_\_\_

Address (cont): \_\_\_\_\_

Pre-qualification Contact Name: \_\_\_\_\_

Phone Number: \_\_\_\_\_

E-mail Address: \_\_\_\_\_

DUNS No. (Dun & Bradstreet): \_\_\_\_\_

#### 5.2 **North American Industry Classification System Code (NAICS)**

The NAICS (North American Industry Classification System code for this work is **333914**. The SBA size standard for this code is **750** employees. For pre-qualification purposes, you are a small business if your company's employees do not exceed **750**.

**Business Size  
Classification**  
(according to U.S.  
Small Business  
Administration  
Criteria)

- ☐ Small
- ☐ Small Disadvantaged Business
- ☐ Woman Owned Small Business
- ☐ HUBZone Business
- ☐ Veteran-Owned Small Business Concern

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☐ Service-Disabled Veteran-Owned Small Business Concern.

☐ 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
- 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

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/>** in order to be considered.

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- A. Date your company registered or updated its information on the Portal?  
Date Updated: \_\_\_\_\_
- B. Rough Order of Magnitude for Scope of Work (USD): \$ \_\_\_\_\_
- C. Estimated Delivery Schedule:
- |      |                             |           |
|------|-----------------------------|-----------|
| i.   | Engineering/Design: _____   | weeks ARO |
| ii.  | Material Procurement: _____ | weeks ARO |
| iii. | Fabrication: _____          | weeks ARO |
| iv.  | Delivery: _____             | weeks ARO |
- D. Long lead items to be aware of (if yes, please specify)  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- E. 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 describe below or provide as an attachment..  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- F. 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 pumps for the application (or similar application) described above?
- ☐ Yes   ☐ No
- B. Direct Relevant Experience Documentation: If the Respondent has answered “yes” to the foregoing question, 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 each “yes” response. Example projects should be detailed as to both the technical scope of the project and your participation in the project.

### 6.0 Experience Statement

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

1. Customer Name, Address, Contact Name and Phone No.- We may contact for references, as needed.

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2. Work Description and Location- Describe work scope and location, and then indicate if prime or subcontract.
3. Original/ Final Contract Value- Original award value and final closeout contract value.
4. 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

### 7.0 Pre-Qualification Document Checklist

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

- ☐ Interest & Prequalification Criteria and Response Package (this document)
- ☐ QA Program Table of Contents and summary *or* a copy of QA Plan
- ☐ Additional supporting documentation such as brochures and company profiles.
- ☐ Direct Relevant Experience Documentation (included in this document or provided as attachment)

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