WASTE TREATMENT PLANT PROJECT REQUEST FOR INTEREST

TECHNICAL SERVICES FOR DESIGN AND CONSTRUCTION OF THE HIGH LEVEL WASTE (HLW) MOCKUP FACILITY (HMF)

Requisition Number: 24590-NP-SRA-W000-00084
Submit Interest By: 11/07/24
Quality Level: Non-Permanent Plant (NP)
Award Type: Firm Fixed Price / Fixed Unit Price

ESTIMATED SCHEDULE

Issue Request for Proposal: 11/11/24
Award and Notice to Proceed: 07/27/25

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.

SCOPE OF WORK

This Scope of Work (SOW) covers the minimum technical requirements for design, furnishing of materials and fabrication of a HLW Mockup Facility (HMF) that will be utilized to confirm the design and operational integrity of the WTP's HLW production facility. Work under this subcontract will be released in a phased approach, consisting of Phase 1 for HMF Design and Phase 2 for HMF Fabrication and Construction. The SOW requested for these Phases is described in the sub-sections that follow.

Design of the HMF equipment areas, with exception of overhead crane rails, will be by the CONTRACTOR. Clear delineation of design boundaries will be presented on the Architectural and General Arrangement drawings that are provided to the SUBCOTRACTOR for design guidance. Additional design scope that is designated for the CONTRACTOR is described in the sub-sections that follow.

The HMF will serve to confirm viability of critical production operations for the HLW facility with emphasis on prototypic equipment areas that feature remote handling and processing of the waste feed and the final glass product.

PHASE 1 – HMF DESIGN

The HMF will serve to confirm viability of critical production operations for the HLW facility with emphasis on prototypic equipment areas that feature remote handling and processing of the waste feed and the final glass product.

Environmental Design Conditions

The HMF will be located in the greater area of the Hanford nuclear reservation in Southeastern Washington state. The HMF shall be designed to withstand environmental conditions as normally applied for commercial structures in this geographical region.

Mechanical requirements

Mechanical requirements related to the SUBCONTRACTOR's scope is limited to design details associated with the crane rails that will be utilized by the three HMF bridge cranes. This information will be flowed down by the CONTRACTOR.

Loadings

The HMF shall be designed by the SUBCONTRACTOR for:

a) Normal torque (bolting) loads
b) Live loads
c) Temperature and pressure loads
d) Wind and snow loads commensurate with the local environment and with commercial standards
e) Maximum shear and tension loads at all anchor points
f) Maximum installed equipment weight (dead loads) as provided by the CONTRACTOR Electrical requirements

SUBCONTRACTOR will be responsible for design of the HMF area that will house the Motor Control Center (MCC) equipment, all other electrical design will be by the CONTRACTOR.

Instrumentation and Control Requirements

Design of the HMF shall prioritize accessibility and maintenance considerations. Any removable panels shall be hinged such that the Buyer's maintenance personnel may perform routine duties without need of a lifting fixture. Controller placement shall be such that Operations & Maintenance personnel may perform assigned duties without need of portable ladders or scaffolding.

Quality & Safety Classifications

All manufactured products provided under this service requisition are Commercial Grade (CM), non-nuclear and non-safety.

Industrial Codes and Standards

Codes and Standards applicable to the design of the HMF (e.g., UBC, NEC, etc.) should be as normally applicable to commercial buildings such as conceptualized for the HMF. A listing of Codes and Standards intended to be applied by the SUBCONTRACTOR's should be included with their proposal.

PHASE 2 – HMF FABRICATION AND CONSTRUCTION

The SUBCONTRACTOR is requested to submit a Rough Order of Magnitude (ROM) estimate for fabrication and construction of the HMF using the CONTRACTOR's provided architectural drawings as a basis. The CONTRACTOR intends to use this ROM estimate for internal planning purposes. A follow up RFP for Phase 2 Construction work will be released after the HMF 90% design has been reviewed and accepted by the CONTRACTOR.

TECHNICAL REQUIREMENTS

Technical requirements for performance of activities associated with this Service Requisition are outlined in the following subsections.

Technical Capabilities

The following technical capabilities are required for resources assigned to this work scope.

- SUBCONTRACTOR personnel proposed shall have a minimum of 5 years of experience in design and/or construction support for industrial commercial buildings with direct experience in mockup arrangements or test facilities being a desired plus. General experience in activities as described in

Section 2.3 is also expected. Experience and credentials of proposed individuals will be submitted by the SUBCONTRACTOR and reviewed by CONTRACTOR to confirm acceptability.

Deliverables, Submittal and Acceptance Criteria

Formal HMF design will commence with mandatory 30/60/90 design reviews planned to occur at scheduled periods as agreed to between the parties. Design reviews should include citation and presentation of design media as developed suitable for inclusion in a future RFP to be issued for fabrication and construction of the HMF. Final design shall be suitable for issuance to a third party contractor for build to print fabrication and construction of the HMF if so desired by the CONTRACTOR.

QUALITY ASSURANCE (QA) REQUIREMENTS

Programmatic Quality Assurance (QA) requirements for subcontracts or purchase orders performed in the WTP Jobsite will be:

X	Non-Permanent or Temporary Work - Generally no QA program required
	Commercial Quality - Based on DOE Order 414.1C
	Nuclear Level Quality - Based on ASME NQA-1 2000

Bechtel may require, as an element of bidder pre-qualification, submission of a representative sample QA Program or Table of Contents copy. For Nuclear Level Quality subcontracts, the successful bidder's QA Program must be approved prior to award of the subcontract or purchase order.

BIDDER REGISTRATION AND PRE-QUALIFICATION

The BNI Acquisition Services Subcontracts/Purchasing group is responsible for collection, evaluation, and internal publication of potential bidders' information for the purpose of pre-qualifying them to bid on any particular subcontract or purchase order.

As part of this process, BNI requires all potential offerors to register at the Supplier and Contractor Portal at: https://www.Bechtel.com/supplier/

If your company has registered previously, then only supplemental information should be sent to the Bechtel National, Inc. representative noted below.

Information to be provided by potential bidders must include:

- Dun and Bradstreet Number
- Company Name
- Company Address
- Contact Phone Number
- Contact Person
- Email Address
- Safety Data and Information
- Applicable Work Experience and Projects
- Size of Business (Small, Large)

WTP BACKGROUND

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

CONTACT

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