

# WASTE TREATMENT PLANT PROJECT REQUEST FOR INTEREST

Requisition Number: 24590-CM-SRA-HX00-00024  
Submit Interest By: November 21, 2017  
Quality Level: CM  
Award Type: Time & Materials

## ESTIMATED SCHEDULE

Issue Request for Proposal: November 27, 2017  
Pre-Bid Conference: December 5, 2017  
Proposals Due: December 18, 2017  
Award and Notice to Proceed: January 17, 2018

## 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

SUBCONTRACTOR shall perform all the work necessary to refurbish and place the Standby Diesel Generator consisting of a DDC 20V-4000-G82 MTU Engine and a National Oilwell Co. brushless Generator rated at 13.8 kv, and Standby rating of 3375 KVA and all support systems (Airstart system, Diesel cooling and heat exchanger, Diesel fuel oil day tank and storage tank and fuel transfer system, Diesel 480 vac auxiliary system and Diesel main control cabinet) in service after a long storage period of greater than 10 years. The scope of work includes inspecting the equipment for deterioration after a long term storage, perform restoration and refurbishing activities of all support systems and engine and generator necessary to support SUBCONTRACTOR start-up operations and testing of the equipment. The equipment encompassed by this scope of work is the:

- Series 4000 Diesel Engine
- Combustion air system
- Exhaust system
- Cooling system including external heat exchanger
- Fuel system
- Lubrication system
- Electrical system
- Air start system
- National Oilwell 13.8 kV brushless generator
- Generator set control system
- Engine control system
- Enclosure

The SUBCONTRACTOR shall (1) provide labor, equipment, and consumable materials required to refurbish the Standby Diesel Generator (SDG) and all supporting systems, (2) provide all consumables, M&TE required to support the refurbishment activities surrounding the SDG, and (3) collect and dispose of all spent preservation lubricants and cooling system solutions that shall be disposed of off the WTP site by the ES&H in compliance with local, state and Federal regulations.

The Standby Diesel Generator (SDG) enclosure and components within are currently not acceptable to the WTP Electrical AHJ. During refurbishment, SUBCONTRACTOR is responsible for electrical modifications to ensure the SDG enclosure and components are acceptable to the WTP Electrical AHJ.

Suitability and accessibility of electrical equipment, including all internal components and material of listed or labeled equipment and assemblies, shall be evidenced by listing or labeling by a nationally recognized testing laboratory (NRTL) as recognized by OSHA. A UL/NRTL recognized component mark is acceptable in lieu of the standard UL labeling. Documentation supporting appropriate NRTL listing or labeling shall be provided to the CONTRACTOR for review. One of two methods shall be used:

**Method 1 (Primary): Listed, Labeled, or Certified**

The WTP Authority Having Jurisdiction (AHJ) will approve and accept electrical equipment without additional examination if it is Listed, Labeled, or Certified by a US NRTL, as recognized by OSHA under 29 CFR 1910-Subpart S and is acceptable for the application, environment and other requirements of NEC Article 110. For a listing of and Typical Registered Certification Marks of US NRTL as recognized by OSHA go to the current OSHA listing available on their website.

The SUBCONTRACTOR shall submit a Certificate of Compliance document for review and approval by the AHJ that lists the USA Electrical Standard(s) that each electrical material or equipment is evaluated for its NRTL Listing. Only those standards that are on the OSHA website are acceptable to the AHJ. The certification shall confirm that the NRTL Label for each electrical component will be as shown on the current OSHA listing available on their website including the additional markings required to indicate acceptability for use in the USA.

**Method 2 (Alternate): Field Evaluation by a NRTL**

Electrical equipment that is part of an overall electrical or mechanical assembly having a NRTL field evaluation, where the report states that the equipment has been accepted or otherwise deemed safe by the NRTL recognized by OSHA under 29 CFR 1910-Subpart S, using US standards, will be evaluated by the WTP AHJ for acceptability. If found acceptable no further examination of the equipment is required.

The SUBCONTRACTOR shall submit all field evaluation reports completed by an OSHA recognized NRTL to the CONTRACTOR for review and approval by the AHJ. These field evaluation reports shall show compliance to the applicable USA Electrical Standard(s) recognized by OSHA. The NRTL Label will be as shown on the current OSHA website with whatever additional markings that are necessary to indicate acceptability for use in the USA. Acceptance, or a safety evaluation can be obtained by a field evaluation.

Equipment and Materials Required

SUBCONTRACTOR would be expected to supply replacement parts and ancillary and consumable materials.

**QUALITY ASSURANCE (QA) REQUIREMENTS**

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

<input type="checkbox"/>	Non-Permanent or Temporary Work - Generally no QA program required
<input checked="" type="checkbox"/>	Commercial Quality - Based on DOE Order 414.1C
<input type="checkbox"/>	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.

**CODES**

- NFPA 30-2000 Flammable and Combustible Liquids Code
- NFPA 70-1999 National Electrical Code
- 40 cfr 60 Standards of Performance for New Stationary Sources
- ANSI C50.10 – 1990 Rotating Electrical Machinery – Synchronous machines.
- NFPA 110 – 1999 Standard for Emergency and Standby Power Systems.
- WAC 173-400 General Regulations for Air Pollution Sources

## STANDARDS

- ANSI C50.10-1990 American National Standard for Rotating Electrical Machinery-Synchronous Machines
- ASME Section VIII Boiler and Pressure Vessel Code -Unfired Vessels
- ASME B16.5 Steel Pipe, Flanges and Flanged Fittings
- ASME B31.3-1996 Process Piping
- IEEE C57.13 Standard Requirements for Instrument Transformers
- IEEE 242 Recommended Practice for Protection and Coordination of Industrial and Commercial Power Systems
- IEEE 446 Recommended Practices for Emergency and Standby Power Systems for Industrial and Commercial Applications
- NEMA MG 1 Motors and Generators
- ICEA S-93-693 / NEMA WC74 Shielded Power Cables 5,000-46,000 volt
- ISO 3046 Reciprocating Internal Combustion Engines - Performance
- ISO 8528 Reciprocating Internal Combustion Engine Driven Alternating Current Generating Sets
- API 661 Air-Cooled Heat Exchangers for General Refinery Service

## 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/> (this is an internet address, not a link.)

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

Bechtel National, Inc.  
2435 Stevens Center Place  
Richland, WA 99354  
Attn: Ousman Kinteh  
Phone: 509-373-8166  
Email Address: okkinteh@bechtel.com  
Mailstop: MS10-E