Part 1 Statement of Work for

200 West Area Pump and Treat Project

Vapor Phase Granular Activated Carbon Roll-Off Units

Revision 0
March 31, 2020
Prepared by: Bruce Sasser

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<tr>
<th>APPROVALS</th>
<th>PRINT NAME</th>
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<tbody>
<tr>
<td>BTR*</td>
<td>Terry C. Lucke</td>
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<td>CAM/Project Controls**</td>
<td>Steven P. Churchill</td>
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<tr>
<td>Contract Officer***</td>
<td>Ricky L. Franzen</td>
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</tbody>
</table>

* Approval for technical content  ** Approval for funding availability  ***Approval for contractibility
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1.0 INTRODUCTION / BACKGROUND

As a prime contractor to the U.S. Department of Energy (DOE), CH2M HILL Plateau Remediation Company (CHPRC) is focused on the safe, environmental cleanup of the Central Plateau of DOE’s Hanford Site. This Statement of Work for critical long-lead equipment is part of the overall 200 West Area Pump and Treat Project. Fabrication and construction of system components will be performed offsite and are considered non-nuclear. This is because even after concentrating in filter medium, the levels of radioactivity in the groundwater that will be treated at this facility are far below the nuclear criteria.

On September 29, 2008, the Record of Decision, Hanford 200 Area, 200-ZP-1 Superfund Site, Benton County, Washington for this CERCLA action was approved by the Department of Energy (DOE), the U.S. Environmental Protection Agency (EPA), and the Washington State Department of Ecology (Ecology). Associated with the selected remedies, the 200 West Area Pump and Treat System project was initiated and will be responsible for the design, construction, and testing of the initial pump and treat system.

Figure 1-1. Hanford Site Map Showing the Central Plateau Groundwater Operable Units.
1.1 Definitions

1. BTR – Buyers Technical Representative
2. Buyer – CHPRC Contract Specialist
3. CHPRC – CH2MILL Plateau Remediation Company
4. Contractor – The Offeror to whom a Contract is written for a Task(s) also referred to as supplier or vendor.
5. Contractor’s Project Manager – Contractor’s Project Manager responsible for a specific task(s).
6. DCE - Dichloroethylene
7. FAT – Factory Acceptance Test
8. FRP – Fiberglass Reinforced Plastic
9. GAC – Granular Activated Carbon
10. MBR – Membrane Bioreactor
11. PSIG – Pounds per Square Inch Gauge
12. RH – Relative Humidity
13. SCFM – Standard Cubic Feet per Minute (68 F at 1 atm)
14. SOW – Statement of Work
15. TCE - Trichloroethylene
16. VPGAC – Vapor Phase Granular Activated Carbon (also refers to pelletized form)
17. VOCs – Volatile Organic Compounds
18. WAS – Waste Activated Sludge
19. WC – Water Column

2.0 DESCRIPTION OF WORK - GENERAL

This Statement of Work (SOW) identifies the Vendor’s scope as it relates to the support of fixed-bed vapor phase granular activated carbon (VPGAC) adsorption roll-off units. In general, the VPGAC containers are required to provide filtration as a once-through forced flow system for an air stripper treating VOC-contaminated groundwater or emissions from aerated tanks/equipment.

The Contractor shall, based on the applicable Technical and Supporting Specifications, and this SOW, build and deliver four (4) vapor phase granular activated carbon adsorption roll-off units. Supporting specifications applicable to these units are identified in Article 4.7 of this SOW. The reference supporting specifications apply when referenced in the Technical Specifications and shall be strictly followed. Any substitutions or deviations in equipment or arrangements from
that shown on the drawings and specifications shall be the responsibility of the Contractor. A list of submittals is summarized in Attachment A – Submittal Register of this SOW.

Terminology is in conformance with ASTM D2652, Standard Terminology Relating to Activated Carbon.

3.0 DESCRIPTION OF WORK - SPECIFIC

The specified equipment is for the expansion of the 200 West Area Pump and Treat System Project.

3.1 Task 1 - Vapor Phase Granular Activated Carbon Unit Functional Requirements

The Contractor shall provide four new vapor phase granular activated carbon (VPGAC) adsorption roll-off units. The roll-off units will be configured as one new (including four existing) for a total of five trains, each with two adsorbers in series. Each of five trains shall serve as a complete once-through forced flow system removing VOCs from the exhaust of three air strippers (1 train each) and the aerated tanks/equipment exhaust (2 trains). The additional two new (including four existing) for a total of six adsorbers will serve as spares.

The lead bed shall be capable of reducing the levels of the listed organic contaminants to the values shown in specifications for the service life period. Each adsorber shall be filled with pelletized granular activated carbon for removal of organic contaminants from air stripping and emissions from other aerated tanks/equipment. The adsorbers shall be designed to operate continuously, 24 hours per day, 7 days per week.

3.2 Task 2 – Technical Installation Oversite

The Contractor shall provide oversight of the installation (installation by others) and testing of these systems in accordance with the CHPRC Technical Specifications and the Manufacturer’s Installation Instructions.

3.3 Task 3 - Spare Parts

The Contractor shall provide spare parts in accordance with the Technical Specifications of this SOW.

4.0 TECHNICAL REQUIREMENTS

4.1 Special Requirements – Packaging and Shipment

Preparation for shipment, delivery, and handling and storage shall be in accordance with Specification SGW-54021, 01 61 00 - Common Product Requirements.

4.2 Work Not Included

The following work is not included in this Contract:
• Installation of the equipment at the CHPRC’s site will be performed by OTHERS; however, Contractor to provide oversight by an assigned expert(s) for identified task(s).
• Site preparation, foundation and concrete work and all on-site craft labor.

4.3 Organizational Interfaces
The Contractor shall interface with various CHPRC (and other) organizations through the BTR, as required, or at points and frequency described below.

4.4 Site Conditions and Known Hazards
All fabrication and system assembly will be performed off-site.
Contractor oversight for installation and testing will be performed at the on-site project location within the boundary of the 200 West area. The project site is not located within a designated radiation zone, and is not a nuclear related work scope. There are no known radiological or environmental hazards.

4.5 Site Coordination Requirements
All site condition requirements will be coordinated by the BTR.

4.6 Codes and Standards
The design of new equipment and major modifications to new equipment shall provide the capability of being locked out. The equipment item itself may or may not contain an intrinsic lock.

Codes and standards are included in the respective Technical Specification. All components shall be designed, procured, tested, and/or inspected in accordance with recognized industry codes or standards. It is the Contractor’s responsibility to identify any applicable codes or standards that apply which are not included in the Technical Specification. Unless specified otherwise, the current edition or revision of the code or standard in effect on the date of award shall be used. The Contractor shall document the code or standard that will be used for each component.

4.7 Specifications
The most current version of the specifications included below, are hereby incorporated into, and made a part of this SOW. They shall have the same force and effect as if written into the body of the SOW.

<table>
<thead>
<tr>
<th>No.</th>
<th>Title</th>
<th>Rev.</th>
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<tr>
<td>SGW-54021</td>
<td>01 61 00 - Common Product Requirements</td>
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<td>SGW-54023</td>
<td>05 50 00.01 - Metal Fabrications</td>
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<td>SGW-54024</td>
<td>09 90 00 - Painting and Coating</td>
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<td>SGW-54042</td>
<td>40 27 00.08 – Stainless Steel Pipe &amp; Fittings – General Service</td>
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<tr>
<td>SGW-63672</td>
<td>Packed Tower Air Stripper Package System</td>
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</tbody>
</table>
TITLE: Vapor Phase Granular Activated Carbon Roll-Off Units

4.8 Drawings
The most current version of the drawings included below, are hereby incorporated into, and made a part of this SOW. They shall have the same force and effect as if written in the body of the SOW.

<table>
<thead>
<tr>
<th>Drawing No.</th>
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<tr>
<td>H-2-833557-03</td>
<td>Mechanical Bio Process Bldg Plan Area B</td>
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<tr>
<td>H-2-833557-04</td>
<td>Mechanical Bio Process Bldg Plan Area C</td>
</tr>
<tr>
<td>H-2-833561-03</td>
<td>Mechanical Bio Process Bldg VOG Area B</td>
</tr>
<tr>
<td>H-2-833561-04</td>
<td>Mechanical Bio Process Bldg VOG Area C</td>
</tr>
<tr>
<td>H-2-833564-04</td>
<td>Mechanical VPGAC Adsorber Roll-Off Unit</td>
</tr>
</tbody>
</table>

4.9 Hoisting and Rigging Requirements
Contractor shall comply with ASME B30.20-2018 Below-the-Hook Lifting Devices, and ASME BTH-1-2017 Design of Below-the-Hook Lifting Devices should any special or unique lifting devices be needed for off-loading, moving and or setting of the equipment.

4.10 Transportation of Hazardous Materials
All equipment is subject to a receiving inspection by the Contractor and to any other requirements specified by special provisions 13 and 14.

4.11 Welding/Non-Destructive Examination
Welding shall conform to the requirements of SGW-64475, 43 31 14 - Fixed Bed Vapor Phase Granular Activated Carbon Adsorption Roll-Off Units.

4.12 Cleaning, Cleanliness, and Foreign Material Exclusion Requirements
During fabrication, assembly, and shipping of any system or component the contractor shall:

- Ensure the initial removal of any deleterious contaminants.
- Minimize the recontamination of cleaned surfaces.
- Minimize the introduction of foreign materials into the interior surfaces and spaces.
5.0 PERSONNEL REQUIREMENTS

5.1 Training and Qualification
Contractor shall ensure that assigned personnel have the appropriate education, training, experience and skills to accurately perform the work of this contract.

1. Hanford General Employee Training (HGET) or Hanford Site Orientation (4-6 hrs).
2. As required for access to the job site, facility specific site orientation (2 hrs).

No hands on work or testing are expected to be performed. If this is not the case, contact the BTR for additional training requirements.

5.2 Site Access and Work Hours
Any site access required by the Contractor will be scheduled and coordinated by the BTR.

- Construction activities are conducted on a 4-10’s schedule. The Contractor shall identify work hours required to accomplish the scope of work within the schedules identified in Article 3.0 of this SOW.
- The Contractor will have access to the job site based on the terms of the Contract.

6.0 ENVIRONMENTAL, SAFETY, HEALTH, AND QUALITY REQUIREMENTS
The Contractor shall perform work safely, in a manner that ensures adequate protection for employees, the public, and the environment, and shall be accountable for the safe performance of work. The Contractor shall comply with, and assist CHPRC in complying with Environmental, Safety, Health, and Quality (ESH&Q) requirements of all applicable laws, regulations and directives. While working within a facility or remote area, Contractor may be required to participate in emergency drills. Exemptions may be requested by Contractor. In addition, the following project specific safety requirements are applicable to this specific scope of work and are tailored to the hazards and controls applicable to this scope of work:

- The Contractor shall flow down ESH&Q requirements to the lowest tier subcontractor performing Work, commensurate with the risk and complexity of the work. The contractor shall perform work safely in accordance with the ISMS/EMS principles, in a manner that ensures adequate protection for personnel, the public, and the environment, and shall be accountable for the safe and environmentally protective performance of the Work. The Contractor shall exercise a degree of care commensurate with the work and the associated hazards.

- Environmental support and issues shall be coordinated with the BTR or designated field construction managers (CM), who will coordinate these items with the appropriate Environmental Compliance Officer.

The following project specific safety requirements are applicable to this specific scope of work and are tailored to the hazards and controls applicable to this scope of work.
6.1 Safety Requirements

Contractor and its subcontractors shall be responsible to comply with State, Federal, and DOE requirements or regulations. Where there is a difference in regulations or requirements, the most stringent shall apply.

For on-site work, Contractor and its subcontractors shall be responsible to comply with all applicable sections of SP-05, Special Provisions – On-Site Services.

Contractor shall perform work in compliance with facility-specific procedures and requirements documents applicable to the work area.

Contractor shall utilize the Hanford Site Occupational Medical Provider (HPMC) to obtain the identified medical examinations. Contractor shall support development/completion of an Employee Job Task Analysis (EJTA) for each assigned individual assigned to an on-site work location for greater than 30 days in a rolling 12-month period, including work done for other Hanford Prime Contractors or Subcontractors. EJTAs completed by the Contractor shall be submitted to the Contract Specialist for approval by the CHPRC Health and Safety professional. Approved EJTAs shall be provided by the Contract Specialist or Health and Safety Professional, to AMH to define required medical examination(s).

NOTE: All workers with a task assignment on the Hanford site are required to have a CHPRC approved EJTA regardless of the length of the assignment. EJTAs and any required exams should normally be prepared and performed prior to the Contractor’s mobilization on site. However, a person with a long term assignment that does not involve one or more of the chemical/physical hazardous exposures or anticipated work assignments identified in PRC-PRO-SH-40078, Contractor Safety Processes, can start working on site prior to obtaining an exam but must have a CHPRC approved EJTA and secure their examination during the first 30 days of assignment. If a worker has a task assignment on the Hanford site that is over 30 days where the task does not expose them to any of the chemical/physical hazardous exposures or anticipated work assignments identified in PRC-PRO-SH-40078, no AMH physical/medical monitoring examination is required.

Contractor shall use HPMC for first aid treatment, and return to work evaluations and the Hanford Fire Department for ambulance service for urgent medical situations requiring care and transport.

Contractor shall take appropriate action, up to and including stopping work, and immediately notify the Contract Specialist if an unplanned risk or hazard is discovered that is not covered by directions provided by Contract Specialist. This action includes notifying the Contract Specialist if the work exposes their workers to hazards that require medical monitoring.

All services will be conducted in accordance with Hanford Site environmental, safety and health standards, security requirements, and Quality Assurance Program Plan applicable to scope.
The Contractor and its lower-tier contractors shall take all reasonable precautions in the performance of the work to protect the safety and health of employees and of members of the public. Where there is a difference in regulations or requirements, the most stringent shall apply.

The Contractor shall immediately notify the BTR and the Contract Specialist of any injuries or incidents; to include damage to Contractor-owned property or equipment.

### 6.2 Quality Assurance and Control

A. Contractor shall be responsible for performing quality workmanship and shall conduct the quality control measures necessary to ensure work conforms to drawings and specifications.

B. Plans, procedures, and engineering documentation shall be controlled in accordance with the Contractor’s and Lower-tier Subcontractor’s Quality Assurance Program which may be reviewed by CHPRC.

C. Third party as referred in this document shall be a lower-tier subcontractor qualified per ASTM E329, *Standard Specification for Agencies Engaged Construction Inspection, Testing or Special Inspection*.

D. CHPRC reserves the right to make inspections at any time at the source of supply of materials.

E. All items and processes are subject to review, inspection or surveillance by CHPRC at the Contractor's facility, or any lower-tier subcontractor's facility.

F. Equipment requiring calibration shall be periodically calibrated to assure reliable results.

G. Contractor shall be responsible for the performance of all inspection and testing activities as specified in the Contractor’s submittal “Quality Assurance Inspection Plan” provided to CHPRC for approval.

H. Contractor is responsible for the achievement and the verification of the quality of the activities performed in the completion of the described work scope. Compliance with codes, standards and requirements is the responsibility of the contractor.

### 6.3 Quality Assurance/Inspection Requirements

<table>
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<tr>
<th>QA Clause</th>
<th>Description</th>
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<tbody>
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<td>Contractor Quality Program Evaluation</td>
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<td>B07</td>
<td>Certified Quality Program</td>
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<tr>
<td>B10</td>
<td>Quality System For Materials Specifying Testing Per ASME</td>
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<td>B12</td>
<td>Supplier Use of Calibrated Equipment</td>
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<tr>
<td>B13</td>
<td>Fabrication/Inspection/Test Plan (Traveler)</td>
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Table 6.3 Procurement Quality Clause List

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<td>B16</td>
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<td>B22</td>
<td>Nonconformance Documentation and Reporting</td>
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<td>B25</td>
<td>Certified Weld Inspector (CWI)</td>
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<td>B28</td>
<td>Welding Procedures and Qualifications</td>
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<td>B52</td>
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<td>Control of Graded Fasteners</td>
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<td>B76</td>
<td>Procurement of Potentially Suspect or Counterfeit Items</td>
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<td>B79</td>
<td>Certificate of Conformance</td>
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<td>B82</td>
<td>Recommended Spare Parts Listing</td>
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<td>B85</td>
<td>Packaging/Shipping Procedures</td>
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<td>B88</td>
<td>Direct Drop Shipment</td>
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A. Contractor Quality Program Evaluation (B04)

Contractors performing fabrication work other than ASME shall implement a quality assurance program consistent with an appropriate consensus standard (NQA-1, ISO, ANSI/ASQC E-4, etc.). The Contractor's program is subject to review at all times by the CHPRC. The Contractor's program, written for compliance with a quality assurance program standard other than the one imposed on the Purchase Order/Contract, may be acceptable if it complies with the quality assurance program requirements specified.

When subcontracting any portion of this Purchase Order/Contract, the Contractor is required to invoke the applicable quality assurance program requirements on the subcontractor.

The CHPRC reserves the right to verify the quality of work at the Contractor's facility, including any subcontractor's facility. Access to a subcontractor's facility shall be requested through the Contractor and verification may be performed jointly with the Contractor.

B. Certified Quality Program (B07)

The Contractor shall maintain the certified quality program (e.g., ASME, ISO, NIST, Federal Regulations) specified in the Purchase Order. A copy of the Contractor's current quality assurance program manual and Authorizing Certificate shall be submitted to the

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CHPRC with the Proposal. The Certificate shall remain current for the duration of the Purchase Order/Contract. The Contractor shall notify the CHPRC of Certificate cancellation or revocation.

C. Quality System for Materials Specifying Testing Per ASME (B10)

The manufacturer shall be audited, approved, and qualified by ASME, i.e., possess a Quality System Certificate (Material Manufacturer, Material Contractor).

These systems shall be used during performance of this Purchase Order/Contract and shall be subject to audit and approval by the CHPRC or its representative, as warranted. The Contractor's Manufacturer's ASME certificate shall be submitted by the Contractor with the proposal.

Where such documentation has been submitted to the CHPRC within the past 12 months and such documentation has not been revised, submittals are not necessary. Instead, the Contractor shall reference the manufacturer's name and ASME certification number and its expiration date.

Certified Material Test Reports:

The chemical analyses and mechanical results as specified by the Purchase Order/Contract shall be submitted prior to or with each shipment. Each report shall contain the following:

1. Product Description - Specification(s), Codes, Type of Material, etc.
2. Actual results of chemical analysis/mechanical testing in accordance with the provisions of the Code, standard and/or specifications.
3. The specification defining the chemistry/test requirements.
4. Traceability to the item tested (Heat No., Lot No., etc.).
5. The name and address of the manufacturer that shall be identified by letterhead, logo or other similar marking.
6. The manufacturer's ASME Certificate No. and expiration date.
7. The Purchase Order/Contract number and item to which the report applies.

The reports are for review and acceptance by the CHPRC.

D. Supplier Use of Calibrated Equipment (B12)

When required the Supplier shall submit certification stating that the Supplier owned equipment used by the Supplier in the performance of the work listed in the procurement documents has been calibrated utilizing standards whose calibration is traceable to the National Institute of Standards and Technology. If no such standard(s) is available, the Supplier shall submit for review and approval, documentation stating the basis of the equipment's calibration. This certification shall include a report of actual calibration results. The documentation shall be identifiable to the equipment being used and to any
acceptance criteria listed in the procurement documents. The report shall contain the signature, with printed name, of the authorized representative of the agency who performed the calibration.

1. Prior to the start of work, the Supplier shall submit the latest calibration certification/report certifying that all calibrated Supplier used equipment is in-calibration.

2. During the course of the contract, the Supplier shall submit a calibration certification/report certifying that all calibrated Supplier owned equipment was calibrated at any manufacture recommended or other prescribed intervals that occur during the life of the work, or whenever the accuracy of the equipment is suspect.

3. Upon completion of work that requires its use, the Supplier shall submit a closeout calibration certification/report certifying that all calibrated Supplier used equipment was recalibrated.

If at any time during the course of contract, the Supplier owned equipment’s as-found calibration measurements are out-of-tolerance; the Supplier shall notify the CHPRC and submit a copy of the calibration report showing the discrepant as-found measurements. The Supplier shall evaluate the use of the equipment to determine if previously collected data is acceptable. The Supplier shall submit for approval written documentation of this evaluation, including, as necessary, recommendations for the recollection of previously collected data found to be unacceptable.

One copy of the all required documentation, unless otherwise specified, shall be submitted for review and approval.

E. Fabrication/Inspection/Test Plan (Traveler) (B13)

The Contractor shall prepare a detailed fabrication/inspection/test plan (Traveler) for insertion of CHPRC-designated source inspection/witness notification points. Prior to starting work, the plan shall be submitted to the CHPRC for review, approval and insertion of CHPRC’s designated inspection/witness notification points unless otherwise specified in procurement documents. The plan shall include the following:

1. Traceability to CHPRC’s Purchase Order/Contract Order document number.
2. Description of items to be fabricated/tested/inspected (e.g., components, subassemblies, assemblies).
3. Sequential fabrication/process steps.
4. Sequential points for inspection and tests to be performed during fabrication/processing.
5. Method/procedure to be used for performance of inspection/test/fabrication, including:
a. Each characteristic or attribute to be evaluated,

b. The report form to be utilized,

c. Specific Codes/Standard requirements as specified by procurement documents i.e., ASME, ASTM, ANSI, etc.

d. Sampling plans for final characteristics (e.g., AQL, lot size, inspection level), where applicable.

Subsequent revisions/modifications to the fabrication/inspection/test plan document require review and approval by the CHPRC prior to implementation of the change. When subcontracting any portion of this Purchase Order/Contract, the Contractor is required to invoke the applicable quality assurance program requirements on the subcontractor.

F. Source Inspection (B16)

All items are subject to inspection at the Contractor's facility or Contractor's subcontractor's facility by a CHPRC's quality representative. Contractor shall notify CHPRC at least 5 working days in advance of the time items will reach any inspection hold point established by the CHPRC in the procurement package.

G. Nonconformance Documentation and Reporting (B22)

All nonconformances are identified at the Supplier's facility with a proposed disposition of "Accept" or "Repair" shall be approved by the CHPRC before any corrective action is taken by the Supplier on the nonconformance.

Accept: A disposition that a nonconforming item will satisfactorily perform its intended function without repair or rework.

Repair: A disposition requiring the processing of a nonconforming item so that its characteristics meet the requirements listed in the disposition statement of the nonconformance report.

Nonconformances shall be documented by the Supplier on the Supplier's nonconformance form. After documenting the nonconformance, disposition and technical justification, the form shall be forwarded to the CHPRC.

After the recommended disposition has been evaluated by the CHPRC, the form shall be returned to the Supplier with a disposition of approval or rejection. The Supplier may take corrective action on the nonconformance only after the form is approved.

The Supplier's nonconformance form shall be shipped with the affected item.

H. Certified Weld Inspector (CWI) (B25)

Contractor personnel performing weld inspections shall be certified as a Certified Weld Inspector (CWI) in accordance with the requirements specified in AWS QC-1.

The following documentation shall be submitted prior to the start of fabrication:

2. Current and valid visual acuity examination. The examination must be performed annually.

   Approval shall be obtained from the CHPRC prior to start of fabrication.

I. Welding Procedures and Qualifications (B28)

Welding procedures and personnel shall be qualified in accordance with the applicable AWS or ASME specifications as specified in the Purchase Order/Contract order. The Contractor shall submit copies of all welding procedures, Procedure Qualification Records, and Welder Qualification Records to be employed in the performance of this Purchase Order/Contract. CHPRC approval is required prior to the start of fabrication.

Changes and revisions to welding documentation shall be submitted to the CHPRC for review and approval prior to use. When subcontracting any portion of this Purchase Order/Contract, the Contractor is required to invoke the applicable quality assurance program requirements on the subcontractor.

J. Nondestructive Examination Process (B31)

Nondestructive examination (NDE) personnel shall be qualified and certified in accordance with the recommended guidelines of the American Society of Nondestructive Testing's (ASNT) SNT-TC-1A-2001, unless otherwise specified in the ordering data.

The Contractor is not authorized to begin fabrication until the following documentation has been reviewed and approved by the CHPRC:

1. NDE qualification and certification procedures
2. Personnel Level I, II, and III qualifications and certifications which include objective evidence of NDE training, formal education, examinations, experience, date of hire, and current eye examination
3. NDE method/examination procedures that are in accordance with the applicable codes/standards specified in procurement documents.

All NDE reports and radiographs shall be traceable to the item examined, include all essential examination parameters, and signed and dated by the NDE examiner. All NDE reports and radiographs shall accompany or precede shipment of material. Radiographs and radiographic technique and examination reports shall be subject to approval by the CHPRC prior to shipment of completed items.

When subcontracting any portion of this Contract, the Supplier is required to invoke the applicable quality assurance program requirements on the subcontractor.

K. Identification of Items (B34)

All off the shelf items shall be identified with the part number/model number. Identification shall be on the item or the package containing the item. When the
identification is on the item, such marking shall not impair the service of the item or violate dimensional, chemical, or physical requirements.

The Contractor shall provide, with shipment, a legible copy of the product data sheet (e.g., drawing, catalog page, brochure) that provides adequate information to enable the CHPRC to verify the form and function of the articles procured.

One copy of the documentation, unless otherwise specified, shall accompany the applicable item(s) shipped.

L. Identification of Age Control Items (B43)

The Contractor shall identify each item, assembly, package, container, or material, having limited shelf life, with the cure date or date of manufacture and the expiration date. The Contractor shall specify any storage temperatures, humidity and environmental conditions which should be maintained. Material shall NOT be furnished having less than 75 percent of total shelf life available at time of shipment.

M. Liquid Penetrant Material Certification (B46)

A certification of contaminant content shall be furnished for each batch number of penetrant, cleaner, developer, and emulsifier provided. The certification shall include the test results which meet the requirements of ASME Section V, Article 6, and the latest mandatory addenda or Purchase Order/Contract specified addenda. All materials and reports are subject to review and acceptance by the CHPRC.

N. Certified Material Test Report (B49)

The Certified Material Test Report (CMTR) shall include actual results of all chemical analysis, tests, examinations, and treatments required by the material specification and this Purchase Order/Contract order. The CMTR shall be legible, reference applicable specification number and year of edition, and be traceable to the material furnished by heat or lot number. All reports are subject to review and acceptance by the CHPRC.

One copy of the documentation, unless otherwise specified, shall accompany the applicable item(s) shipped.

O. Inspection and Test Report (B52)

The Contractor shall submit legible, reproducible copies of Inspection/Test Reports. The report(s) shall include the following:

1. Identification of the applicable inspection and/or test procedure utilized.
2. Resulting data for all characteristics evaluated, as required by the governing inspection/test procedure.
3. Traceability to the item inspected/tested, (i.e., serial number, part number, lot number, etc.).
4. Signature of the Contractor’s authorized representative or agency which performed the inspections/tests.

One copy of the documentation, unless otherwise specified, shall accompany the applicable item(s) shipped.

P. Control of Graded Fasteners (B73)

The provisions stated below are the minimum Department of Energy requirements for high strength graded fasteners produced in compliance with national consensus standards (e.g., SAE, ASTM, ASME).

1. Fasteners shall exhibit grade marks and manufacturer’s identification symbols (headmarks) as required in the specifications referenced in the Purchase Order/Contract.

2. Any fasteners supplied with headmarks matching those displayed on the attached Suspect/Counterfeit Fastener Headmark list, or facsimiles thereof, shall be deemed to be unacceptable under the terms of this Purchase Order/Contract.

Suspect Bolt Head Marking Card Suspect/Counterfeit Headmark List
Stainless Steel Fastener Headmark List
Stainless Steel Suspect/Counterfeit Headmark List

3. When requested by the CHPRC, the Contractor shall provide a legible and reproducible copy of the manufacturer’s Certified Material Test Reports (CMTR). These CMTRs shall report the values of the actual chemical and physical tests performed on the represented fastener lot/material heat. Fastener packaging/labeling shall be traceable by lot number or other positive means to the CMTRs.

4. Fasteners shall be inspected to verify compliance with the Purchase Order/Contract requirements. Additionally, fasteners may also be subjected to destructive testing.

5. When requested by the CHPRC, the Contractor shall provide a Certificate of Conformance which must certify conformance and traceability of supplied materials to the subject Purchase Order/Contract. The document must be legible and reproducible.

Q. Procurement of Potentially Suspect or Counterfeit Items (B76)

Notwithstanding any other provisions of this agreement, the Supplier warrants that all items provided to the Contractor shall be genuine, new and unused unless otherwise specified in writing by the Contractor. Supplier further warrants that all items used by the Supplier during the performance of work for the Hanford Site, include all genuine, original, and new components, or are otherwise suitable for the intended purpose. Furthermore, the Supplier shall indemnify the Contractor, its agents, and third parties for any financial loss, injury, or property damage resulting directly or indirectly from material, components, or parts that are not genuine, original, and unused, or not otherwise suitable for the intended purpose. This
includes, but is not limited to, materials that are defective, suspect, or counterfeit; materials that have been provided under false pretenses; and materials or items that are materially altered, damaged, deteriorated, degraded, or result in product failure.

Types of material, parts, and components known to have been misrepresented include (but are not limited to) fasteners; hoisting, shackles, turnbuckles, cable clamps, wire rope, rigging, and lifting equipment; cranes; hoists; valves; pipe and fittings; electrical equipment and devices; plate, bar, shapes, channel members, and other heat treated materials and structural items; welding rod and electrodes; and computer memory modules. The Supplier's warranty also extends to labels and/or trademarks or logos affixed, or designed to be affixed, to items supplied or delivered to the Contractor. In addition, because falsification of information or documentation may constitute criminal conduct, the Contractor may reject and retain such information or items, at no cost, and identify, segregate, and report such information or activities to cognizant Department of Energy officials.

Supplier shall provide a written statement that—all items furnished under this Purchase Order/Contract Order are genuine (i.e., not counterfeit) and match the quality, test reports, markings and/or fitness for use required by the Purchase Order/Contract Order.

The statement shall be on supplier letterhead and signed by an authorized agent of the supplier. Any materials furnished as part of this Purchase Order/Contract Order which have been previously found to be suspect/counterfeit by the Department of Energy shall not be accepted. For further information on suspect/counterfeit items, reference the Department of Energy (DOE) Guide DOE G 414.1-3.


R. Certificate of Conformance (B79)

The Supplier/Manufacturer shall provide a legible/reproducible Certification of Conformance. Supplier's/Manufacturer's authorized representative responsible for quality shall sign the Certification of Conformance.

This Certification of Conformance shall, as a minimum:

1. Identify the appropriate Purchase Order/Contract Order number under which the material, equipment, item or service is being supplied.

2. The COC shall identify the specific procurement requirements to be met by the purchased item or service. The procurement requirements identified shall include any approved changes, waivers, or deviations applicable to the item or service.

3. The COC shall be signed or otherwise authenticated by a supplier's representative.

One copy of the documentation, unless otherwise specified, shall accompany the applicable item shipped. For subsequent shipments on this Purchase Order/Contract order, reference may be made to documentation provided with earlier shipments, instead of duplicating such documentation.
S. Recommended Spare Parts Listing (B82)

The Contractor shall submit a recommended spare parts list per the Technical Specification submittal requirements. The list shall provide the name and address of the original Manufacturer of the replacement part, or parts and/or model number, drawings, specifications, or catalog cut sheet including applicable change or revision information and recommended quantities.

T. Packaging/Shipping Procedures (B85)

The Contractor shall prepare and submit, prior to use, a procedure or plan for the packaging and shipping of items during the performance of this Purchase Order/Contract. The procedures shall include as appropriate cleanliness inspections prior to packaging, use of preservatives and coatings, descriptions of specially designed shipping containers, handling and rigging procedures, final inspections, and the type of transfer and shipping vehicles. Examples of the packing and shipping inspection forms shall be included in the procedure or plan.

U. Direct Drop Shipment (B88)

This Purchase Order/Contract is issued on the condition that all specified material, certifications, and test reports shall be drop-shipped, by the manufacturer, directly and only to the CHPRC per P.O./Contract requirements.

Each item of property shall be clearly and permanently marked with an individual serial number which shall also appear on each specified certification and test report.

The above stated condition shall appear, unchanged, on Contractors/or Contractor’s Contract to the ASME certified manufacturer.

7.0 MEETINGS AND SUBMITTALS

7.1 Meetings

The Contractor shall interface with various CHPRC (and other) organizations through CHPRC‘s Contract Specialist (or designated BTR for in-scope work), as required, or at points and frequency determined by the Contract Specialist.

A. After contract award, the contractor shall participate in a Project Kickoff Meeting which may be a conference call, an internet meeting, or a meeting to be held at the CHPRC‘s Site. The time, date, and agenda for the meeting will be provided to the Contractor by the Contract Specialist.

B. The person or persons designated by the Contractor to attend all meetings shall have all required authority to make decisions and commit Contractor to technical decisions made during meetings.

C. Weekly Progress Meetings

Upon request, Contractor shall attend a weekly coordination meeting together with various contractors at the jobsite or by teleconference.
7.2 Submittals

The Contractor submittals identified in the specifications and listed herein on the Submittal Register shall be submitted by the Contractor using the form A-6004-757, Contractor Document Submittal Form. See Instructions for completion of the form. The quantity, frequency and type of submittal shall agree with the requirements set forth on the Submittal Register. A Submittal Number, entered on the CDSF by the Contractor in accordance with the submittal register, shall be used to identify each submittal. CDSF forms may be copied for submittals with different submittal dates. When any submission is returned to the Contractor with a request for resubmission (i.e., marked as: “B Yes” “Resubmit Minor Comments – Approved to proceed, however resubmittal is required”; or “C” “Revise and Resubmit”) the Contractor shall resubmit all corrected documents within the time specified on the resubmission notice or if no time is specified therein within five (5) working days from the disposition date. New submittals shall require the Contractor to contact the Contract Specialist if additional Submittal Numbers are required.

A. Changes to a Contractor’s deliverables, that have not been accepted by CHPRC as complete shall be re-submitted using the CDSF form and in accordance with the Contractor’s CHPRC approved Quality Assurance and/or Engineering Program.

B. Substitutes: Prior to work, a completed Contractor Document Submittal Form shall be submitted for each requested substitution. Substitution requires approval if an item is more hazardous than the specified product or if the product callout includes the phrase such as “or approved substitute”. Submitted data shall show “fit, form and function” equivalency, as well as cost savings, if any, to the contractually required item.

C. The following project control submittals are required within the first month of the contract:

1. The Contractor shall provide a critical path schedule to be used as the Schedule Baseline showing logic interfaces and all contract milestones and deliverables using a Primavera Project Planner schedule, Revision 17.

2. A schedule status report shall be submitted monthly with status indicated against the cost and schedule baseline. Deviations of more than +/- 5% shall require a narrative variance analysis with planned mitigations and expected outcomes.

D. Preparation of submittals will be in accordance with the Technical Specification and this statement of work.

Prepare all submittals in an orderly manner using index and labeled dividers. The following defines in general the submittal content requirements for the following submittal types:

1. Shop Drawing:

   a. Identify drawings with equipment name and applicable contract drawing and/or specification.
b. Indicate critical field dimensions and relationships to other critical features.

c. When submitting manufacturer’s standard schematic drawings and diagrams, modify or delete information that is not applicable to the equipment.

2. Contractor Design Data will include the following:

   a. Written and graphic information
   b. List of assumptions
   c. List of performance and design criteria
   d. Summary of loads or load diagram, if applicable
   e. Calculations
   f. List of applicable codes and regulations
   g. Name and version of software
   h. Information requested in individual specifications.

3. Test and Inspection Reports:

   a. Shall include date of test or report, Project title, and signature of person responsible for test or report.
   b. Identification of product and specification reference, type of inspection or test with referenced standard or code.
   c. Test results. If test or inspection deems material or equipment not in compliance with Contract Document, identify corrective action necessary to bring into compliance.
   d. Provide interpretation of test results, when required by engineer.

4. Manufacturer's Instructions:

   a. Written or published information that document manufacturer’s recommendations, guidance, and procedures in accordance with individual specifications.

5. Samples:

   a. Mount, display, or package samples in a manner to facilitate review of quality. Attach label on unexposed side that includes:
      • Manufacturer name
      • Model number
      • Material
      • Sample source
b. Manufacturer’s color chart showing full range of colors, textures, and patterns available.

c. Prepare from same materials to be used for the work and physically identical with product proposed for use.


8.0 DELIVERABLES, PROJECT CONTROLS, MILESTONES, AND PERFORMANCE SCHEDULE REQUIREMENTS

8.1 Deliverables

Deliverables associated with the equipment fabrication and assembly along with contractor oversight shall be in accordance with this Statement of Work and associated specifications included herein.

8.2 Performance Schedule

The Contractor shall provide a critical path schedule to be used as the Schedule Baseline showing logic interfaces and all contract milestones and deliverables. Schedule to be provided in hard copy and electronic using a Primavera Project Planner schedule, Revision 17.

8.3 Milestones

- Vendor Information
- Shop Testing
- Equipment delivery (anticipated delivery by August 30, 2020)
- Field Testing
- Equipment acceptance

8.4 Acceptance Criteria

- Submission of all required submittals
- Approval of all submittals requiring approval
- Delivery acceptance
- Successful completion of all required testing including, but not limited to, the Factory Acceptance Tests and Functional Tests

END OF STATEMENT OF WORK

Attachment A – Submittal Register
Attachment B - Drawings