STATEMENT OF WORK
FOR
CONSTRUCTION

Requisition #: 331641

Title: IDF Infrastructure Upgrades – Balance of Plant

Revision Number: 10

Date: September 16–October 2, 2019
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PART 1 – GENERAL

.1 INTRODUCTION / BACKGROUND

– As a Prime Contractor to the U.S. Department of Energy (DOE), the CH2M HILL Plateau Remediation Company (CHPRC) is responsible for safe environmental cleanup of the Central Plateau of the DOE Hanford Site. The CHPRC scope of work includes environmental remediation, treatment and disposal of radioactive wastes, management of spent nuclear fuel, and disposition of nuclear materials and non-reactor nuclear facilities.

– This Statement of Work (SOW) is for Integrated Disposal Facility (IDF) Infrastructure Upgrades for the Balance of Plant Scope of Work

– The overall scope of the IDF Infrastructure Upgrades is to prepare the IDF Facility for the disposal of Immobilized Low Level Waste (ILAW) from the Waste Treatment Plant (WTP). Additionally the IDF will receive Low Level Waste and Mixed Low Level Waste from various Hanford site operations.

.2 DESCRIPTION OF WORK - GENERAL

– The Work is in the 200 East Area of the Hanford Site and is located approximately 26 road miles north of Richland, Washington.

– The Work consists of constructing upgrades to the IDF Facility that include:

  • Site & Facility Utilities: including electric, water, and sewer systems, including utility stub ups supporting mobile offices in the Waste Receiving Facility and Operations/Administration Area. The mobile offices will be purchased by CH2M HILL Plateau Remediation Company (CHPRC) and provided to the Contractor as Buyer Furnished Equipment (BFE). The grounding of the perimeter fencing is included within this scope of work

  • Storage & Waste Treatment Pads: Includes the construction of two (2) Reinforced concrete slabs for the Treatment and Storage of the Waste. The Storage pad is 12” thick, and the Treatment pad is 14” thick.

  • ILAW Transport & Pallet Inspection Buildings: Includes the supply and construction of two (2) pre-engineered structures and associated foundations. Both structures are fitted with overhead roll up doors, lighting and heating & ventilation.

  • Facility Lighting: Light poles and light fixtures for parking lots, equipment staging areas, and the north and south roadway entrances are to be supplied and constructed as part of the IDF infrastructure upgrades.
• **Leachate Truck Loading**: Leachate Truck Loading Station modifications include the modification to the two (2) truck filling stations to use a quick-connect couplings instead of the installed hose, and to place open-sided weather enclosures over the Leachate Truck Loading Station.

• **Leachate Tank Connection**: The two existing leachate tanks will be connected through a central leachate collection pipe. The connection pipe will be configured to allow both tanks to either fill simultaneously, allow leachate from Cell 1 and from Cell 2 to be transferred to either tank, and for isolation of a single tank. 2 lines of approximately 700 ft ea. of double-contained 3-in. High Density Polyethylene (HDPE) leachate transfer pipe (with a 6-in. HDPE containment) will travel between the leachate transfer buildings. These transfer lines will slope down to a central location where a leak detection sump will be installed.

• **SCADA System Upgrades**: There are presently two independent Process and Instrumentation Control Systems (PICS) at the IDF, located in the Cell 1 and Cell 2 Crest Pad Buildings. The IDF SCADA system capabilities will be enhanced by allowing for remote monitoring and control of the existing Cell 1 and Cell 2 PICS at a centralized location inside the new Operations and Administration mobile offices. A stand-alone SCADA computer workstation with wall-mounted HMI display will be located in the IDF Operations Center. The IDF SCADA computer will communicate with each PICS via fiber optic cable connections.

Site clearing, grubbing and grading and the installation of the perimeter fencing, roads and signage is not part of this contract scope. The site will be prepared to a grade of 8” below finished elevation prior to the contractor commencing this scope of work. The contractor will be responsible for the required excavation, compaction, backfilling and restoration of grade (8” below finish grade) associated with all work scope included in this SOW. Following completion of excavation and backfilling a separate contract will supply and install the final base and top course layers to establish final finish grade.

### .3 DESCRIPTION OF WORK - SPECIFIC

– Included Work.

#### .3.1 General

Provide and manage all labor, equipment, material, and services required to complete the Work. Labor includes participation of Contractor’s employees in training and medical examinations required by the Contract. Contractor shall be required to submit a work plan with the proposal that details the sequence of work from mobilization through demobilization activities.

#### .3.2 IDF is currently under care and custody which requires daily inspections and other routine inspections and maintenance activities around the landfill perimeter and at
existing buildings. Access to needs to be maintained to the existing infrastructure and the landfill perimeter to accommodate these inspections. Access to inspections areas within an active construction area must be accommodated, however will controlled by the Construction contractor.

.3..3 Contractor will be required to provide seven full working days’ notice to CHPRC for any LOTO support required on existing systems.

.3..4 Contractor is responsible for all sub foundation and utility trenching preparation work including the excavation, backfilling, compaction testing and third party inspection and testing services in accordance with the design documentation to include but not limited to:

- Survey layout and elevation compliance in accordance with contract documents
- Excavation to sub foundation elevations and required utility trenching depths. Excavation and trenching to be performed in accordance with DOE-0344 “Hanford Site Excavating, Trenching & Shoring Procedure” (HSETSP) – Results from a recent Site Ground Penetrating Radar (GPR) identifying the existing underground site utilities are attached as Attachment B.
- Potholing and excavating to locate existing utilities.
- Sub foundation preparation and compaction testing
- Utility trenching and bedding requirements
- Rebar and form inspection (prior to concrete placement)
- Concrete/grout placement and testing services
- Backfill materials, inspection and testing

.3..5 Contractor shall be responsible for supplying complete report (photographic) for all underground-buried services installed as part of this SOW.

.3..6 Prior to closing utility trenches, the contractor shall notify CHPRC 2 days in advance to obtain surveys of underground lines.

.3..7 Contractor shall be responsible for the cleanup and disposal of all excess and construction materials.

.3..8 For the disposal of existing materials removed as part of the IDF, upgrades CHPRC shall provide an ERDF container.
.3.9 Contractor shall be responsible for the commissioning and testing of all systems and buildings covered under this SOW. Contractor will be required to troubleshoot and perform corrections to ensure equipment and systems operate as intended.

.3.10 Contractor shall be responsible for supplying all third party inspection and testing requirements as noted within the contract drawings, specifications and this SOW.

.3.11 CHPRC will supply a 14’x60’ breakroom trailer at the site for the contractors use. Contractor is responsible for supplying and maintaining restroom (blue room) facilities for their personnel.

.3.12 Contractor will be responsible for supplying their personnel all safety related equipment and drinking water for their personnel.

.3.13 Contractor is responsible for providing transportation to and from the site for their employees.

.3.14 Refer to the design documents for the complete description of the work. The following paragraphs summarize major work elements only.

.3.15 Modular Unit Installation. CHPRC will supply the following Modular Units to the contractor for Installation, **Note the contractor will be required to coordinate with Pacific Mobile to support the installation and assembly of the units** (Floor plans are included as Attachment A of this SOW):

- 72x60 6-Wide Office Trailer – The Operations and Administration Mobile Office is south of 4th Street. The Mobile Office will be supported with sanitary water from 4th Street, power, and a sewer line connected to Baltimore to the west. The unit will be supplied with 2 sets of stairs, 1 ADA compliant ramp, anchors and insulated skirting.

- 28x64 2-Wide Office Trailer – The Waste Receiving Facility area is southwest of the existing Cells 1 and 2. It will house maximum of 10 support staff in a mobile office. This facility will be supported with sanitary water from 4th Street, power, and a sewer line connected to Baltimore to the west. The unit will be supplied with 2 sets of stairs, anchors and insulated skirting.

- 28x50 2-Wide Shower/Restroom Trailer - The Shower Trailer is south of 4th Street. This building is next to the Operations and Administration Mobile Office. The Shower Trailer will be supported with sanitary water from 4th Street, power, and a sewer line connected to Baltimore to the west. The unit will be supplied with 3 sets of stairs, anchors and insulated skirting.

Contractor will be required to perform the following tasks:

- Coordinate receipt of units with Pacific Mobile - Precautions must be taken during the delivery for anchorage of the trailer units. Ensure that units are not left in a condition during back shift or weekends, that would allow units to be overturned by strong winds. The unit delivery schedule is as follows.
SECTION 01010
SUMMARY OF WORK

- 6 wide Office Trailer – 2/15/20
- 2 Wide Office Trailer – 2/19/20
- 2 Wide Restroom/Shower trailer – 2/26/20

- Remove axles / tongue / tires as required once the trailer is in its new location and then store the removed parts underneath the trailers.
- Connect, level and anchor trailers in accordance with manufacturers plans.
- Install insulated skirting (CHPRC supplied). Contractor will be responsible for the supply and install of framing materials to support skirting.
- Connect electrical Power to the trailers in accordance with contract drawings - All electrical construction shall be in accordance with NEC requirements.
- Connect potable water to the trailers in accordance with contract drawings.
- Connect sewer service to the trailers in accordance with contract drawings.
- Contractor will be responsible for the Commissioning and testing of the modular units. Contractor will be required to troubleshoot and perform corrections to ensure equipment operates as intended.
- Install ADA ramps and stairs to the trailers in accordance NFPA Life Safety Code requirements. Contractor will be responsible for supplying and installing chicken wire fencing around stair bases to prevent the buildup of tumbleweeds. Contractor will be responsible for the install of formed and poured concrete step off pads at each stair and ramp location (5Ft x 5Ft). Contractor will be responsible for install of formed and poured concrete access from ADA parking to the ADA Ramp at the 6-Wide Trailer.
- Install office partitions as noted on the attached floor plan layouts – CHPRC supplied (Attachment A).
- Route and install data cabling to work stations. All data wire will be supplied coiled in the ceiling. (Refer to Attachment A)
- Install and set up Office furniture, includes shower trailer lockers & benches – CHPRC Supplied.
- Perform items necessary to make the trailer fit for occupancy such as installation of necessary fire extinguishers, installation of exit signs, (CHPRC will supply signage and fire extinguishers)
- Seal exterior penetrations (electrical / etc.)
- Perform touchup painting as needed.
- Stabilize disturbed areas with crushed rock surfacing and provide general clean up removing all construction debris.
.3..16  Treatment/Storage Pads. Construct reinforced concrete (RC) pads in the waste Receiving Area. The primary pads are the Storage Pad and the Treatment Pad.

- **Storage Pad.** Construct reinforced concrete (RC) foundation pad, 120 feet x 140 feet x 12 inches thick with thickened edge perimeter 24 inches thick. The Storage Pad will support 80 ILAW packages weighing 20,000 lb each, 110,000 gross vehicle weight (GVW) tractor/trailer, and fully loaded 50-ton fork truck and is sloped for storm run off.

- **Treatment Pad.** Construct RC foundation pad, 80 feet x 80 feet wide by 14 inches thick with thickened edge perimeter 24 inches thick. Around the perimeter of the slab is a 2 inch high x 2 feet wide radius concrete curb. The treatment pad is designed to support a 500 ton package and is sloped for storm runoff.

.3..17  Inspection Buildings. Supply and Construct two pre-engineered metal buildings and their associated foundations. Contractor shall work with an accredited manufacturer-building supplier as noted within the construction specification. Contractor will be responsible for supplying footing reaction loads and anchor rod plans for both buildings. Contractor will be responsible for the supply and install of all required electrical service, lighting and heating & ventilation service to the buildings. Contractor will be responsible for third party inspection and testing services associated with the building construction.

- **ILAW Pallet Inspection Building.** 1,440SF pre-engineered metal building with a 48FT length and 30Ft width. Minimum ceiling height is 25FT.

- **ILAW Transport Inspection Building.** 2,400SF pre-engineered metal building with an 80Ft length and 30Ft width. Minimum ceiling height is 25Ft.

Each building will have motor operated roll-up doors on each end, 20 ft. wide and 18 ft. high, and one man-door on the side. The interior wall/ceiling finish will be exposed, “simple saver”, or approved equal, insulation with an R-value commensurate with the Washington State Energy Code, the building type and use. The interior walls will have painted plywood sheathing from floor to 8’-0” to provide impact resistance.

Contractor will provide and install interior and exterior lighting. Interior lighting will be high bay light-emitting diode (LED) shop lights.

Contractor will provide and install Heating and ventilation for the two inspection buildings. They will not be air-conditioned. Heating is provided for freeze protection of stored contents and ventilation is provided for air movement during the summer months.

- Freeze protection is provided by 4 kW suspended electric unit heaters mounted on the walls of each building, four heaters in the pallet inspection building and six
heaters in the transporter inspection building. Heaters are sized to maintain a minimum 40°F temperature in the storage building at an outside temperature of -17.4°F. Heaters will be thermostatically controlled to come on at a user selected low temperature in the building.

- Ventilation is provided by two, 2000 cfm, wall-mounted exhaust fans, with air intake provided by a combination louver/damper. The damper opens when the fans are turned on and closes when the fans are off. The fans are located on one end of the building and the louver is located in sidewall on the other end. Fans are controlled manually with a single on/off switch.

Contractor will be responsible for the supply and install of concrete bollards as noted in the contract documents and concrete aprons at overhead and man door locations.

- Overhead door aprons – 20Ft x 3Ft RC pad
- Man door Aprons – 5Ft x 3Ft RC pad

Contractor will be responsible for the Commissioning and testing of the inspection buildings and their associated systems. Contractor will be required to troubleshoot and perform corrections to ensure equipment operates as intended.

Utilities. Contractor will be responsible for the supply and install of all materials and equipment associated with the sanitary water, sanitary sewer and electrical power install with the exception of the 150KVA (Operations & Administration Area) and 225KVA (Waste Receiving Area) Transformers that will be CHPRC supply.

- Sanitary Water The mobile offices in the Waste Receiving Facility and Operations/Administration Area will use potable water for plumbing fixtures. These are the only facilities with anticipated needs for potable water.

Existing sanitary water in the area is serviced via a 12-in. mortar-lined steel potable water main running east-west to the south of 4th Street and an 8-in. polyvinyl chloride (PVC) potable main running north-south along the east side of Baltimore St.

Service to IDF will be provided to the facilities by installing a looped connection on the water mains east and north of the IDF. A 4-inch PVC (American Water Works Association [AWWA] C900) potable water line will tie-in to the existing 8-inch line on the East side of Baltimore St, travel east to the Waste Receiving Facility, north to the Operations/Administration Area, and connect to the 12-inch potable main south of 4th Street. Branches from the 4-in. line of 1.5-in. PVC and
2.5-in. PVC will be used to supply the Waste Receiving Facility and Operations and Maintenance Facility, respectively.

Contractor will be responsible for the complete supply, installation and testing associated with the sanitary water service in accordance with the contract drawings and specifications including:

- Completing the tie in to the existing service lines at Baltimore St and 4th St. CHPRC will be responsible for coordinating the tie in with MSA and all associated permits.
- Weld/Fusion inspection and testing of all joints – Note Contractor will be responsible for submitting their welding/jointing program to CHPRC for approval prior to conducting jointing operations. Contractor will be responsible for providing 3rd party inspection for all joints.
- Flushing, pressure testing and disinfection operations of the sanitary water line. Note pressure testing shall be performed by hydrostatic testing only. Contractor will be required to submit a Flushing, Pressure Testing and Disinfection plan for CHPRC review and approval
- Completing the sanitary water tie in to the Operations & Administration, and waste receiving facilities.
- Providing complete photographic documentation within an installation report of utility routes, tie in points, line cross over sleeving requirements and for maintaining separation distances to Raw water and Sanitary sewer lines. Report and photographs shall provide information on locations, trench depths and show direct tape measurements as evidence of separation requirements. Nodes and features (e.g. valves) shall be documented for as built purposes
- Commissioning and testing of the sanitary water system. Contractor will be required to troubleshoot and perform corrections to ensure equipment operates as intended.

- **Sanitary Sewer** The mobile offices in the Waste Receiving Facility and Operations/Administration Area will be serviced by a sanitary sewer system. These are the only facilities with anticipated needs for sanitary sewer.

Existing sanitary sewer in the area is serviced via an 8-in. sewer main running north-south along the east side of Baltimore St. the tie in point will be an existing sanitary sewer manhole located on this main line.

An 8” sanitary sewer line will be installed from both the Waste Receiving area and Operations & Administration area facilities, sanitary sewer precast manholes will be utilized to maintain elevations and sewer sloping requirements. The 8” lines
will transport sanitary sewer from the waste receiving and Operations & Administration facilities to a centrally constructed lift station that is located to the West of the Operations and Administration area. The lift station will consist of the supply and construction of a deep well, 2 sump pumps, instrumentation and associated valve vault. The lift station will be serviced with electrical power from the Operations & Administration area. From the Lift Station an underground 4” line will be installed to the tie in manhole located on the East side of Baltimore Avenue.

Contractor will be responsible for the complete supply, installation and testing associated with the sanitary sewer service in accordance with the contract drawings and specifications including:

- Completing the tie in to the existing manhole at Baltimore St. CHPRC will be responsible for coordinating the tie in with MSA and all associated permits. Contractor will be responsible for the core drilling of the existing manhole to accommodate the 4” line and the supply and install of the manhole boots. Profiling and grouting of the manhole base to accommodate the 4” sewer line will be the responsibility of the contractor.

- Assembly inspection and testing of all joints – Note Contractor will be responsible for submitting their jointing program to CHPRC for approval prior to conducting jointing operations. Contractor will be responsible for providing 3rd party inspection for all joints.

- Flushing, pressure testing of the Sanitary Sewer line. Note pressure testing shall be performed by hydrostatic testing only. Contractor will be required to submit a Flushing and Pressure Testing plan for CHPRC review and approval.

- Completing the sanitary sewer tie in to the Operations & Administration, and Waste Receiving facilities.

- Providing complete photographic documentation within an installation report of utility routes, tie in points, line cross over sleeving requirements and for maintaining separation distances to Raw water and Sanitary Water lines. Report and photographs shall provide information on locations, trench depths and show direct tape measurements as evidence of separation requirements. Nodes and features (e.g. valves, vaults) shall be documented for as built purposes

- Commissioning and testing of the sanitary sewer system. Contractor will be required to troubleshoot and perform corrections to ensure equipment operates as intended.

- **Electrical Service:** The existing Electrical power for the existing IDF is supplied via a three-phase, #4 aluminum conductor steel-reinforced cable, 13.8 kV
overhead line entering the site from the north. This overhead line taps the three-phase 556.5 aluminum conductor steel-reinforced cable C8-L8 overhead line at pole E767 on the north side of Route 4. From the tap, the overhead line serving the IDF spans approximately 1,000 ft southward and terminates at dead-end pole E2811. From the dead-end pole the supply transitions underground to a nearby 13.8 kV - 480 V, 112.5 kV feed-through pad mounted IDF Service Transformer. This transformer feeds power to the Leachate Collection System electrical distribution system. The 13.8 kV is fed-through the 112.5 kV transformer and extends to a 13.8 kV - 120/240 V, 75 kVA, single phase transformer that supplies the MO-518 mobile office power distribution rack located adjacent to MO-518. MO-518, the 75-kVA transformer, and the power distribution rack will all be removed as part of the upgrades for IDF. The transformer vault and access cover for the 75-kVA transformer will remain in place for use with the new compartmental transformer.

**Electrical Utility Service Upgrades:** A new 150 kVA, 3-phase, 13.8 kV – 480/277 VAC transformer will be installed to serve the Operations and Administration area. Electrical loads served by this transformer include a 2-Wide shower trailer, a 6-Wide office trailer, the Lift Station electrical loads, as well as the North entrance roadway lights. The 13.8 kV circuit that serves this transformer will extend to the Waste Receiving Area via an underground conduit system to a new 225 kVA, 3-phase, 13.8 kV – 480/277 VAC transformer. Electrical loads served by this transformer include a 2-Wide mobile office trailer, the Pallet Inspection Building, the Transport Inspection Building, Equipment area block heater receptacles (6), and the South entrance roadway lights.

Telecommunications conduit will be routed from the north side of 4th Street to the Operations and Administration Area and to the Waste Receiving Area. Utility power conduit will routed from the Operations and Administration Area to the Waste Receiving Area. Manholes will be located at approximately 300-ft intervals for pull points along the underground route.

CHPRC will supply the following equipment as Buyer Furnished Equipment; The contractor is responsible for the supply and install of all other materials, manholes, cabling, fabricated racks and equipment:

- A 150 kVA, 13.8 kV - 480Y/277 V, 3-Phase transformer that serves the Operations/Administration Area
- A 225 kVA, 13.8 kV - 480Y/277 V, 3-Phase transformer that serves the Waste Receiving Facility double wide office building along with roadway lighting, the Pallet Inspection Building, the Transport Building, and the Equipment Staging area lighting
- Calibrated Metering Equipment (supplied from MSA)
**SECTION 01010**

**SUMMARY OF WORK**

*Operations and Administration Area* - The IDF Operations and Maintenance Facility will be served by a 150 kVA 13.8-480/277 V three-phase transformer supplying a 225 A service entrance rated enclosed circuit breaker to allow for isolation of power to the Operations and Administration Area loads. The enclosed circuit breaker will be lockable and is mounted in a National Electrical Manufacturers Association (NEMA) 3R waterproof and dust tight enclosure mounted on an existing metal framed rack located near the service transformer. This circuit breaker will feed a 400 A, 480/277 V power panel located on the same rack. Utility metering will also be also provided on the rack.

Power at 480 VAC is extended from this power panel to two local electrical equipment racks, one adjacent to the 2-Wide shower trailer and one located by the 6-Wide office trailer. These racks have transformers that transform power at 480 VAC to 240/120 and 208/120 VAC, respectively.

*Waste Receiving Facility* - The Waste Receiving Facility includes a double wide mobile office. The electrical load for the mobile office will be a 200 A, 120/240 V, single phase based on typical doublewide loads. Electrical loads of the Waste Receiving Facility area will be supplied from a 13.8 kV – 480Y/277 V, 225 kVA three-phase service transformer and power distribution rack. Loads powered by this distribution rack include the mobile office, inspection buildings, equipment staging area block heaters and roadway/entrance lighting. Primary service to this transformer will be through a new 13.8 kV underground line originating from feed-through terminals of the IDF Operations and Administration Area service transformer. Utility metering will be at the power distribution rack.

*Communications –* Communication service will be routed from North of 4th st to the Operations/Admin and Waste receiving areas. Contractor will be responsible for the supply and install of the communications raceways only (conduit and vaults). The communications route will require the coordination of a road closure at 4th st to enable the road crossing to be completed. All communication cable/fiber will be installed and terminated by others.

*Inspection Buildings* - The Pallet Inspection and Transport buildings are located in the Waste Receiving Facility. Both buildings will have electrical power for interior and exterior lighting, exhaust fans, unit heaters, 120 V convenience receptacles, and rollup door motors. Each building will have its own dedicated service entrance rated lockable enclosed circuit breaker located outside the building to allow for isolation of power to the building.

*Air Monitor / Weather Station* - The existing Air Monitoring Station (N352) located west of Cell 1, and associated area light, is supplied from a local mini-power zone. The mini-power zone is supplied from a 480 V feeder from Crest Pad Building 219A routed through a concrete encased duct bank to hand hole 219-LH-HH-008. The mini-power zone also provides power to a nearby portable weather station. The air monitor and weather station will be relocated outside the
perimeter fence line by CHPRC. The contractor will be required to extend power to the relocated station from the existing service.

In addition to the above, the contractor will be required to perform the following:

- Contractor will be required to perform equipment testing and NEC inspections. CHPRC will coordinate for NEC inspection services
- Contractor will be required to complete tie in to all facilities.
- CHPRC will coordinate electrical outage with IDF facility and Site Electrical Utilities – It is provisionally intended that two separate outages will be performed:
  - Outage 1 – Remove 75KVA transformer and install new 150KVA transformer feeding the Operations and Administration Area. This tie in would be performed following the substantial completion of the greenfield construction of the Administration and Operations Facilities and services fed off the 150KVA transformer
  - Outage 2 - Tie in the 225KVA transformer feeding the Waste Receiving Facilities. This tie in would be performed following the substantial completion of the greenfield construction of the Waste Receiving Facilities and services fed from the 225KVA service
- Contractor will be responsible for all tie in and testing requirements associated with the outages
- Contractor will be required for the commissioning and testing of all facilities. Contractor will be required to troubleshoot and perform corrections to ensure equipment operates as intended.

.3.17 **Grounding:** Contractor will be responsible for the grounding of all systems and buildings in accordance with the design and specification requirements. Under this SOW, the contractor will be responsible for the grounding of the perimeter fence and gates installed by others.

.3.18 **MO-0518 Removal:** Contractor will be responsible for the removal of existing office trailer MO-518 and the associated distribution rack as part of the upgrades for IDF. MO518 will be required to stay operational until such time that the new Operations and Administration office facilities are commissioned and operational. Contractor will be responsible for the movement of the trailer to a TBD CHPRC designated storage site. Contractor will be responsible for securing the trailer at the storage site.

.3.19 **Area & Road Lighting**

Roadway lighting shall be provided at the IDF Site entrances in the following areas:
SECTION 01010
SUMMARY OF WORK

- North Entrance intersection with 4th Street
- South Entrance intersection with 1st Street

Roadway lighting consists of LED cobra head style light fixtures mounted on metal poles. Each fixture will have its own photocell to energize the light when daylight levels drop below the photocell threshold. Lighting circuits are powered from the Waste Receiving Facility electrical distribution rack. Conduit for the lighting circuits will be routed underground from pole to pole.

Area lighting shall be provided in the following areas:
- Operations/Administration Area parking lot
- Transport Building Equipment Staging Area lighting
- Waste Receiving Area parking lot lighting

Area lighting will consist of LED floodlight fixtures mounted on metal poles and energized by photocells. Lighting circuits will be powered by dedicated lighting control panels fed from the nearest facility power. Conduit for the lighting circuits will be routed underground.

Contractor is responsible for the supply and install of all area and road lighting and fixtures, including associated foundations and underground services and feeds. In addition, the contractor shall be required to perform the following:
- Contractor will be required to perform testing and NEC inspections. CHPRC will coordinate for NEC inspection services
- Contractor will be required to perform the commissioning and testing of all lighting systems. Contractor will be required to troubleshoot and perform corrections to ensure lighting operates as intended.

.3..20 Equipment Area Block Heater Receptacles

Contractor will be responsible for the supply and install of six (6) 1500W block heater receptacles in the Equipment Storage Area. The block heaters will be utilized to plug in the heavy equipment during the Winter months.
- Contractor will be required to perform testing and NEC inspections. CHPRC will coordinate for NEC inspection services
- Contractor will be required to perform the commissioning and testing of all Block heater systems. Contractor will be required to troubleshoot and perform corrections to ensure the block heaters operate as intended.

.3..21 Leachate Tank Connection.
The two existing leachate tanks will be connected through two central leachate collection pipes. The connection pipes will be configured to allow both tanks to either fill simultaneously, allow leachate from Cell 1 and from Cell 2 to be transferred to either tank, and for isolation of a single tank.

This modification is made convenient by connecting the transfer buildings for leachate tanks 219A201 and 219E201 using an already installed piping system intended for “future” leachate tanks.

The leachate transfer system modifications will include the installation of new valves and piping to enable the existing submersible cell pump(s) or leachate transfer pump(s) to move leachate between leachate tanks, pump leachate from one cell to either (or both) leachate tanks, or pump leachate to either (or both) truck fill stations.

Each line will include for approximately 700 ft. of double contained 3-in. High Density Polyethylene (HDPE) leachate transfer pipe (with a 6-in. HDPE containment) will travel between the leachate transfer buildings. These transfer lines will slope down to a central location where a leak detection sump will be installed. This routing crosses an existing 1 in. PVC raw water line (which will be abandoned in place).

Contractor will be responsible for the complete supply, installation and testing associated with the Leachate Collection Piping and leak detection sump in accordance with the contract drawings and specifications including:

- Potholing and excavation to locate existing underground “future use” leachate lines
- Weld/Fusion inspection and testing of all joints – Note Contractor will be responsible for submitting their welding/jointing program to CHPRC for approval prior to conducting jointing operations. Contractor will be responsible for providing 3rd party inspection for all joints.
- Flushing, pressure testing of the primary leachate collection line.
- Completing the tie in to the Leachate Transfer Buildings

Leachate Truck Loading Modifications

Leachate Truck Loading Station modifications include a modification to the truck filling station to use a quick-connect couplings replacing the existing hoses, and to place an open-sided weather enclosure over each of the Leachate Truck Loading Stations.

Contractor shall be responsible for the supply and install of all associated materials, structures and foundations in accordance with the contract drawings and specifications.
Contractor shall be required to submit welding program for CHPRC for approval prior to commencement of fabrication activities. All welding on the weather enclosures shall be performed to AWS D1.1 requirements. All welds shall be inspected by a certified weld inspector (CWI).

Weather enclosure steel structures shall be painted in accordance with the contract drawings and specifications. Contractor will be responsible for the necessary field touch ups to achieve finished specifications.

Contractor shall be required to provide fabrication records documenting materials consumed and weld inspection records.

3.23 Supervisory Control and Data Acquisition System (SCADA)

The Contractor shall design a complete SCADA system to be installed in the IDF Operations and Administration Facility. The current SCADA system installed at IDF was designed, supplied and installed by Total Energy Management. A basis of design for the upgraded system to be supplied as part of this SOW was conducted with Total Energy Management. The contractor shall be required to contract with Total Energy Management for the design, supply, installation/integration and testing of the SCADA system.

The IDF SCADA system shall emulate the IDF PICS display and control functions, enabling operators to monitor and control IDF Cell No. 1 (219A) and Cell No. 2 (219E) Leachate Collection and Recovery System (LCRS) PICS equipment from inside the IDF Operations and Administration Facility. The IDF SCADA system will be required to utilize a Windows 10 platform to run the Rockwell Factory Talk View Site Edition HMI monitoring and control software program.

Work Includes: furnishing the required hardware and software, programming, configuring, installing, testing, documenting, starting up, and training for a complete IDF SCADA system including the install of all control power.

The IDF SCADA system will provide for connectivity to the existing Hanford Local Area Network (HLAN) through a secure gateway. The connection will be coordinated through the site Telecommunication Infrastructure Services. Installation of the Ethernet pathways between the IDF SCADA system and the PICS will be provided by others.
.4 UTILITIES INTERFACES

Utility Interfaces are noted below – CHPRC will coordinate with Hanford Utility Providers

<table>
<thead>
<tr>
<th>Utility</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sanitary water</td>
<td>8&quot; line to the East of Baltimore Avenue</td>
</tr>
<tr>
<td></td>
<td>12&quot; Line to the South of 4th Street</td>
</tr>
<tr>
<td>Sanitary Sewer</td>
<td>Sewer Manhole located to the East of Baltimore Avenue</td>
</tr>
<tr>
<td>Electrical</td>
<td>Pole E2811 – 112.5 KVA IDF Service Transformer</td>
</tr>
<tr>
<td>Communications</td>
<td>North side of 4th Street</td>
</tr>
</tbody>
</table>

.5 SEQUENCE OF WORK

In general, the Contractor may establish the sequence of work so long as it complies with the Contract and supports safety and quality. However, several sections of the Work require interface and coordination with other Hanford and CHPRC organizations, as follows.

**Sanitary Water Line** The Contractor shall sequence installation of the new sanitary water line so as to avoid damage to any previously constructed temporary or permanent works. Coordination will be required with the Hanford Tank Farm contractor to coordinate the crossing of the waste transfer line that runs along the West Boundary of the IDF and the Hanford Water Purveyor for the Sanitary Water line tie ins at 4th St and Baltimore Avenue. WIDS sites are located near to the excavation areas and postings and signage shall be adhered to under all circumstances.

**Sanitary Sewer Line** The Contractor shall sequence installation of the new sanitary sewer line so as to avoid damage to any previously constructed temporary or permanent works. Coordination will be required with the Hanford Tank Farm contractor to coordinate the crossing of the waste transfer line that runs along the West Boundary of the IDF and the
Hanford Water Utilities Department. WIDS sites are located near to the excavation areas and postings and signage shall be adhered to under all circumstances.

**Electrical Service.** To complete the electrical transformer tie in it is anticipated up to 2 separate electrical outages will be performed. Outages will be coordinated with Hanford Electrical Utilities and IDF facilities.

**Communications Service:** The road crossing at 4th Street will be coordinated with Hanford Traffic services prior to conducting any road closure work. Contractor will be required to prepare a traffic control/Road closure plan prior to commencing work.

**Leachate Tank Connection.** Tie in at the leachate transfer buildings will be required to be coordinated with CHPRC IDF facility

**Modular Unit Deliveries:** Current delivery schedules for the modular units are as follows:

- 6 wide Office Trailer – 2/15/20
- 2 Wide Office Trailer – 2/19/20
- 2 Wide Restroom/Shower trailer – 2/26/20

**Project Milestone Dates:** The following details the milestone dates for this scope of work:

- Contract award – November 6, 2019.
### DRAWINGS, SPECIFICATIONS, AND EXHIBITS

#### Drawings

<table>
<thead>
<tr>
<th>Drawing No.</th>
<th>Sheets</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>H-2-837962</td>
<td>1-2</td>
<td>IDF Infrastructure and Document List</td>
</tr>
<tr>
<td><strong>Drawings - Civil</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H-2-837963</td>
<td>1</td>
<td>IDF Infrastructure General Notes</td>
</tr>
<tr>
<td>H-2-837964</td>
<td>1-7</td>
<td>IDF Infrastructure Site Plans</td>
</tr>
<tr>
<td>H-2-837965</td>
<td>1</td>
<td>IDF Infrastructure Grading Plan Overall</td>
</tr>
<tr>
<td>H-2-837966</td>
<td>1-7</td>
<td>IDF Infrastructure Road Plans</td>
</tr>
<tr>
<td>H-2-837967</td>
<td>1-20</td>
<td>IDF Infrastructure Underground Sanitary Water &amp; Sewer Plans</td>
</tr>
<tr>
<td>H-2-837969</td>
<td>1-10</td>
<td>IDF Infrastructure Civil Details</td>
</tr>
<tr>
<td><strong>Drawings - Structural</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H-2-837968</td>
<td>1</td>
<td>IDF Infrastructure Treatment Pad</td>
</tr>
<tr>
<td>H-2-837972</td>
<td>1-3</td>
<td>IDF Infrastructure Structural Notes, Special Inspections &amp; Rebar Tables</td>
</tr>
<tr>
<td>H-2-837974</td>
<td>1-4</td>
<td>IDF Fill Station Canopy</td>
</tr>
<tr>
<td>H-2-837975</td>
<td>1</td>
<td>IDF Infrastructure Pallet Inspection Building Foundation Plan</td>
</tr>
<tr>
<td>H-2-837976</td>
<td>1</td>
<td>IDF Infrastructure Transport Inspection Building Foundation Plan</td>
</tr>
<tr>
<td>H-2-837978</td>
<td>1</td>
<td>IDF Infrastructure Inspection Building Details</td>
</tr>
<tr>
<td>H-2-837979</td>
<td>1</td>
<td>IDF Infrastructure Storage Pad</td>
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<td><strong>Drawings - Architectural</strong></td>
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<tr>
<td>H-2-837980</td>
<td>1</td>
<td>IDF Infrastructure Inspection Building Notes and Legend</td>
</tr>
<tr>
<td>H-2-837981</td>
<td>1-7</td>
<td>IDF Infrastructure Pallet Floor Plan, Roof Plan, Elevations, &amp; Door Schedule</td>
</tr>
<tr>
<td>H-2-837982</td>
<td>1-7</td>
<td>IDF Infrastructure Transport Inspections, Floor Plan, Roof plan, &amp; Elevations</td>
</tr>
<tr>
<td><strong>Drawings - Mechanical</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H-2-838010</td>
<td>1</td>
<td>IDF Infrastructure HVAC Notes &amp; Symbols Legend</td>
</tr>
<tr>
<td>H-2-838012</td>
<td>1-3</td>
<td>IDF Infrastructure Pallet Inspection, HVAC Plan</td>
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<tr>
<td>H-2-838013</td>
<td>1-3</td>
<td>IDF Infrastructure Transport Inspection, HVAC DET</td>
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<tr>
<td><strong>Drawings - Electrical</strong></td>
<td></td>
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<tr>
<td>H-2-830859</td>
<td>4</td>
<td>IDF Infrastructure Electrical One-Line Diagram</td>
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<tr>
<td>H-2-838014</td>
<td>1</td>
<td>IDF Infrastructure Electrical Legend &amp; GENL Notes</td>
</tr>
<tr>
<td>H-2-838015</td>
<td>1-8</td>
<td>IDF Infrastructure Rack Assembly</td>
</tr>
<tr>
<td>H-2-838016</td>
<td>1-11</td>
<td>IDF Infrastructure Power Plan, Data logger &amp; Panel Schedules</td>
</tr>
</tbody>
</table>
### SUMMARY OF WORK

**At CHPRC, Safety is no accident**

**IDF Infrastructure Upgrades 09/17/2019**

<table>
<thead>
<tr>
<th>Document No.</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>H-2-838017</td>
<td>1-5 IDF Infrastructure Site Lighting &amp; Pole Assembly</td>
</tr>
<tr>
<td>H-2-838018</td>
<td>1 IDF Infrastructure Electrical Mounting Details</td>
</tr>
<tr>
<td>H-2-838019</td>
<td>1-6 IDF Infrastructure Pallet Inspection Building Parts, Power Plan, Elevations, &amp; Panel Schedules</td>
</tr>
<tr>
<td>H-2-838020</td>
<td>1-6 IDF Infrastructure Transport Building Parts, Power Plan, Elevations, &amp; Panel Schedule</td>
</tr>
<tr>
<td>H-2-838021</td>
<td>1-2 IDF Infrastructure Lift Station Rack Assembly</td>
</tr>
<tr>
<td>H-2-838029</td>
<td>1-2 IDF Infrastructure SCADA System Site Control &amp; Details</td>
</tr>
<tr>
<td>H-2-838030</td>
<td>1 IDF Infrastructure SCADA System Architecture</td>
</tr>
<tr>
<td><strong>Drawings - Facility Modification Packages</strong></td>
<td></td>
</tr>
<tr>
<td>ECR-18-001779</td>
<td>IDF Infrastructure Electrical Power System As Found Condition</td>
</tr>
<tr>
<td>ECR-18-001801</td>
<td>IDF Leachate Tank 219A201 &amp; 219E201 Connection</td>
</tr>
<tr>
<td>ECR-19-000065</td>
<td>IDF Infrastructure SCADA System Modifications</td>
</tr>
<tr>
<td>ECR-19-000117</td>
<td>IDF Infrastructure Electrical Upgrades</td>
</tr>
</tbody>
</table>

#### Specifications and Work Processes

**.6..17** The Specifications applicable to this Scope are shown below:

<table>
<thead>
<tr>
<th>Specification No.</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHPRC-03953</td>
<td>IDF Detailed Infrastructure Design Construction Specification</td>
</tr>
<tr>
<td>CHPRC-03962</td>
<td>IDF SCADA Technical Specification</td>
</tr>
</tbody>
</table>

**.6..18** Major CHPRC work processes applicable to this Scope are shown below. Refer to GP 2.0, “Order of Precedence.”

<table>
<thead>
<tr>
<th>Document No.</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRC-PRO-WKM-079</td>
<td>Job Hazard Analysis</td>
</tr>
<tr>
<td>PRC-PRO-WKM-12115</td>
<td>Work Management</td>
</tr>
<tr>
<td>PRC-PRO-SH-40410</td>
<td>Hazard Communication Program</td>
</tr>
<tr>
<td>PRC-PRO-SH-40516</td>
<td>Chemical Management Program</td>
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</tbody>
</table>
SECTION 01010
SUMMARY OF WORK

Exhibits

<table>
<thead>
<tr>
<th>Exhibit No.</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Form A-6004-822</td>
<td>CHPRC Daily Activity Report (DAR)</td>
</tr>
<tr>
<td>B. Form A-6004-757</td>
<td>CHPRC Contractor Document Submittal</td>
</tr>
<tr>
<td>C. Form A-6004-833</td>
<td>CHPRC Request for Clarification/Information</td>
</tr>
<tr>
<td>D. Form A-6004-967</td>
<td>CHPRC Work Release for Construction Services</td>
</tr>
<tr>
<td>E. Form A-6004-750</td>
<td>CHPRC Chemical Inventory Worksheet</td>
</tr>
<tr>
<td>F. N/A</td>
<td>P6 Schedule Example</td>
</tr>
<tr>
<td>G. Form A-6004-820</td>
<td>CHPRC Contract Change Form</td>
</tr>
<tr>
<td>H. N/A</td>
<td>Subcontractor New Hire Scheduling Process</td>
</tr>
<tr>
<td>I. N/A</td>
<td>Subcontractor New Hire Scheduling Form</td>
</tr>
<tr>
<td>J. Form A-6005-436</td>
<td>Generator Initial Start-Up Checklist</td>
</tr>
<tr>
<td>K. Form A-6005-437</td>
<td>Hanford Generator Re-Start-Up Checklist</td>
</tr>
<tr>
<td>L. Form A-6004-671</td>
<td>CHPRC ACES Entry Permit Log</td>
</tr>
<tr>
<td>M. Form A-6004-929</td>
<td>CHPRC Construction Completion Document</td>
</tr>
<tr>
<td>N. Form A-6004-590</td>
<td>Waste Planning Checklist</td>
</tr>
<tr>
<td>O. Form A-6006-604</td>
<td>Transfer of Care, Custody, and Control</td>
</tr>
<tr>
<td>P. Form A-6004-952</td>
<td>CHPRC Formal Pre-Job Briefing Checklist</td>
</tr>
<tr>
<td>Q. A-6006-539</td>
<td>Construction Lost Time / Work Delay Notification</td>
</tr>
<tr>
<td>R. A-6004-286</td>
<td>Fall Protection Work Permit</td>
</tr>
<tr>
<td>S. A-6006-914</td>
<td>CHPRC Mobile Equipment Daily Pre-Use Inspection Checklist</td>
</tr>
</tbody>
</table>

PART 2 – PRODUCTS
Not Used

PART 3 – EXECUTION
Not Used

END OF SECTION

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At CHPRC, Safety is no accident
IDF Infrastructure Upgrades 09/17/2019
PART 1 – GENERAL

1.1 REFERENCES

N/A

1.2 ITEMS FURNISHED FOR CONSTRUCTION

1.2.1 Equipment and materials furnished for Construction are listed below:

- 6-wide Modular office trailer, stairs, ramps & insulated skirting
- 2-wide Modular office trailer, stairs, & insulated skirting
- 2-wide restroom/shower trailer, stairs, & insulated skirting
- Modular office partitions and furniture – Contractor will assemble/install
- 14’x60’ Construction breakroom Trailer – Non HLAN/Phone/Data
- 225KVA Transformer
- 150KVA Transformer
- Electric Meters – (EU supplied)
- Laydown Area
- On-site parking area for contractor personnel
- Building portable fire extinguishers and signage
- Survey monuments
- ERDF Disposal/Waste cans
- Concrete spoils / washout area

1.2.2 CHPRC will furnish the above listed items for incorporation into Work. To arrange transfer, notify CHPRC 5 working days before need.

1.2.3 Contractor shall protect and handle government-furnished items in accordance with SP-12. – Government Property

1.2.4 Contractor shall provide equipment and labor for uncrating, unpacking, handling, and transporting in accordance with arrangements for transfer.

1.2.5 Contractor shall provide access to furnished items during storage.
SECTION 01019
ITEMS FURNISHED FOR CONSTRUCTION
(CHPRC-Furnished Equipment)

PART 2 – PRODUCTS
Not Used

PART 3 – EXECUTION
Not Used

END OF SECTION
PART 1 – GENERAL

1.1 REFERENCES

Not Used

1.2 SUBMITTALS

1.2.1 See Section 01300 for submittal process

1.2.2 Approval Required: None

1.2.3 Approval Not Required: Before starting work, submit name of person responsible for receiving changes to design media in accordance with 1.4.2.

1.3 REQUEST FOR CLARIFICATION (RCI)

1.3.1 This Section covers preparation of Contractor-originated Request for Clarification (RCI) (A-6004-833). RCI forms will be supplied during Preconstruction Conference (see Section 01200) and are also available on the CHPRC web site at the following link: https://chprc.hanford.gov/page.cfm/CHPRCSafetyReferenceDocuments.

1.3.2 RCIs are used by the Contractor to receive clarification from CHPRC at any time during construction. The RCI form is not used to document a contract modification, engineering change, or nonconformance. CHPRC’s response to an RCI does not constitute authorization to perform a change to the Contract.

1.3.3 The Contractor may proceed in accordance with the response only on the basis that the Contractor agrees that it is not a contract change. If the Contractor believes the response constitutes a change, the Contractor shall immediately process a Contract Change form (A-6004-820) and await receipt of additional written instruction from the Contract Specialist.

1.3.3.1 Limit each request to a single issue. Date each request and assign a unique reference number.

1.3.3.2 Provide pertinent information including Contract number, subject, Drawing numbers, Specification number and paragraph references, date by which response is requested, cost and schedule impacts, site location, descriptive text, and originator’s name and signature.

1.3.3.3 Correspondence and inquiries from lower tier subcontractors addressed to CHPRC will be returned to originator or referred to Contractor.

1.3.4 RCIs shall be prepared in accordance with the form’s instructions.
SECTION 01036
REQUEST FOR CLARIFICATION (RCI) AND CHANGES

1.4 CHANGES

1.4.1 Authorized changes to design media will be provided to the Contractor via a contract modification. Changes may be transmitted to the contractor via an approved redline field change drawing and/or Design Change Notice (DCN), or a contract modification formally transmitted to the Contractor) requesting contractor’s proposal and agreement prior to authorization of the change.

1.4.2 Contractor shall designate a single-point-of-contact responsible for receiving changes to drawings, specifications, and other design media. The designee shall be responsible for maintaining documents and ensuring the most current revision is being used for the performance of work. Documents shall be stored in a manner that minimizes the risk of loss or damage.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

END OF SECTION
SECTION 01040
COORDINATION

PART 1 – GENERAL

1.1 COMMUNICATIONS

1.1.1 Written communications between CHPRC and Contractor shall be sent to the CHPRC representative identified under “Administration Contract Correspondence” in the Contract document Part IV – Special Terms section of the Contract Document. The Contractor may interface with various CHPRC (and other) organizations through the CHPRC Contract Specialist (or designee), as required.

1.1.2 Applicable interfaces, including existing facilities, systems, features, and environmental conditions that the Contractor may interact with, include the following:

- CHPRC Buyers Technical Representative
- CHPRC Project Technical Services - Construction
- CHPRC IDF Project
- CHPRC Engineering
- CHPRC Radiological Controls
- CHPRC Work Management
- CHPRC Waste Management
- CHPRC Quality Assurance
- CHPRC Environmental Compliance
- CHPRC Occupational Safety & Industrial Hygiene (OS&IH)
- CHPRC Fire Protection
- CHPRC Operations (IDF)
- CHPRC Safeguards and Security
- MSA Electrical Utilities
- MSA Water Utilities
SECTION 01040
COORDINATION

- MSA Telecommunications

1.1.1 Daily construction activity shall be coordinated with CHPRC as identified in the Part IV – Special Provisions section 1.11 of the Contract document entitled “Designation of Technical Representative.”Buyer Technical Representative (BTR).”

1.1.2 When working in a CHPRC-designated nuclear facility, Contractor shall be subject to CHPRC facility operation constraints and requirements including facility operational control, procedure compliance/interpretation, and stop work provisions. Contractor personnel shall respect and adhere to directions received from facility operation personnel when conducting work within the designated facility.

1.1.3 CHPRC may assign a Senior Supervisory Watch (SSW) to provide CHPRC management presence at the job site. The primary purpose of the SSW is to closely oversee on-going work and to serve as an active communicator to ensure safe, effective, and environmentally conscious work.

1.2 PREPARATION ACTIVITIES

Contractor shall be responsible for the following functions, requirements, and design criteria preparatory activities:

1.2.1 Ensure equipment, materials, and personnel are ready for the execution of the applicable contract release.

1.2.2 The Contractor shall ensure that Suspect/Counterfeit items are not brought onto the Hanford Site, in accordance with Section 01400.

1.2.3 Ensure all Contractor-supplied tools and equipment are in good working order and free from obvious and known defects, malfunctions and disrepair (e.g., oil leaks, broken and/or missing parts) upon arrival at the job site. Contractor shall accommodate that all equipment repairs and maintenance activities will be performed off-site.

1.2.4 Site conditions and known hazards include the following:

<table>
<thead>
<tr>
<th>Trips and Falls</th>
<th>Noise sources</th>
<th>Bio-hazards and vermin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uneven walking surfaces</td>
<td>Excavation &amp; Earth Moving</td>
<td>Ergonomic hazards</td>
</tr>
<tr>
<td>Lifting</td>
<td>Falling objects</td>
<td>Hazardous Energy</td>
</tr>
<tr>
<td>Radiological Areas</td>
<td>Sharp objects</td>
<td>Temperature Extremes</td>
</tr>
<tr>
<td>Mobile Equipment</td>
<td>Wind and Dust</td>
<td>Hoisting &amp; Rigging</td>
</tr>
<tr>
<td>Portable Hand Tools</td>
<td>Chemicals/Chemical Products</td>
<td>Elevated Work Surfaces</td>
</tr>
</tbody>
</table>

01040-2

At CHPRC, Safety is no accident

IDF Infrastructure Upgrades 09/17/2019
SECURITY, BADGES, AND DOSIMETERS

1.1 CHPRC will arrange for issuance of security badges and dosimeters required for on-site work subject to the requirements identified in the Contract document under Part IV, Special Provisions – On-Site Services SP-5. Dosimetry will be issued for workers performing excavation activities within the established RBA at the 200-E-114-PL URMA.

1.2 As soon as practical after award, the Contractor shall submit a badge request for personnel required under the various releases so that they may be scheduled for training and medical evaluation to be eligible for work onsite. A badge is required in order to obtain an HID number, which is needed before training and medical evaluations can be coordinated and scheduled. A minimum of two working days advanced notice is required for a Site badge. Contractor shall wear a CHPRC-issued security badge identifying himself/herself.

1.3 If required by this SOW, the Contractor shall obtain, at the Contractor’s expense, a facility clearance and security clearance (e.g., Q, L) for employees prior to obtaining access to the job site.

1.4 Contractor employees will be required to submit to vehicle searches and not personally carry or transport prohibited articles.

WORK HOURS

1.1 Work will be done on a 4-10’s schedule Monday through Thursday. The standard workday shall consist of 10 hours of work between the core hours of 6:00 AM to 4:30 PM. No work occurs on Facility Closure Days as noted in the contract. If schedule alternative is required, BTR will communicate to Contractor contact.

Facility Closure Days through the Project duration are as follows:

- Presidents Day - February 17, 2020
- Memorial Day – May 25, 2020
- Independence day – July 2, 2020

1.2 The Contractor will have access to the job site based on the terms of the Contract.

1.3 Contractor should plan on 9 hours of daily productivity time.
SECTION 01040
COORDINATION

WORK MANAGEMENT REQUIREMENTS

1..1 Performance of Work on other than regular day shift, movement of equipment, electrical system tie-ins, and equipment tie-ins require coordination and prior approval.

1..2 Work control requirements:

Work shall be performed in accordance with existing PRC-provided procedures, policies, and guidance documents. No work shall be performed that is out of scope of the contract. If work is determined as out of scope or questionable, work shall be stopped and the issue/concern shall be defined and evaluated. Contract revision will be prepared, as necessary.

The Contractor shall use the written work instructions provided by CHPRC, which are written to guidelines described in PRC-PRO-WKM-12115, “Work Management.” The Contractor and its lower-tiered subcontractors, that will be performing the work, shall support CHPRC sponsored Enhanced Work Planning (EWP) meetings. The planning meetings will be scheduled by CHPRC planning department. The Contractor and/or its lower-tier subcontractors (or representatives) shall provide competent person(s) to support the preparation of all required work documents and shall actively participate in the planning and preparation of the work instructions, Enhanced Work Planning (EWP) and Job Hazard Analysis (JHA) in accordance with PRC-PRO-WKM-079, Job Hazard Analysis. These meetings will discuss work instruction planning scope, hazards and hazard mitigation and analysis preparation. Contractor shall have a representative from each building trades craft type that are performing the work.

It is anticipated for this scope of work that up to 8 work packages will be developed for this scope of work 2 of which will be subject to Hazard Review Board (HRB). Contractor shall provide allowance for attending the following:

- Non HRB Packages – 2 Meetings per work Package – 2 Hours each
- HRB Packages – 4 Meetings per work package – 2 hours each

The result from the meetings will be the work instructions incorporated into JCS Work Package(s) that will describe the work scope, define required hazard mitigation, and include the necessary permits, hold points, inspection test reports, and associated project documentation needed to safely complete the work scope. The work instructions shall have sufficient detail to control the work so that it is performed safely, and provides for required inspections and testing. Work Package(s) shall correspond with the project schedule activities.
SECTION 01040
COORDINATION

- Work scope that interfaces with any existing Structures, Systems, and Components (SSC’s) shall be performed following the preparation and approval of a Facility Modification Package (FMP) prepared by CHPRC Engineering in accordance with PRC-PRO-EN-2001. Typical work scope interfaces include, but are not limited to, electrical systems tie-ins, mechanical/structural system tie-ins, critical lifts, system testing, etc.

- CHPRC Project Technical Services (PTS) Work Control will prepare and provide to the Work Package(s) that will details the requirements for the performance of work. The Contractor shall document and execute their Work in accordance with these requirements. Changes to Contractor Work/Facility Work Package(s) and supporting documents shall be incorporated into the Work Package following the requirements of PRC-PRO-WKM-12115, Work Management, and Work Change Notice (WCN) process. Allow 5 working days for processing work change notices.

- Hazard Identification and Control Requirements will include a hazard analysis that addresses each phase of the work and the hazards associated with the environments at each work site location in accordance with this SOW. Contractor will be involved with scope and hazard analysis which will determine the number of work packages. Each work package will take approximately 20 working days from initial planning to approval.

- Daily release of work packages and approval to work shall be performed using the Work Release for Construction/Services Organization process.

- The Contractor shall prepare a Work Release for Construction/Services Organization form (WRCOSOF) (A-6004-967), by 1:00 pm daily, for review and approval by the Construction Manager/BTR prior to performing the next day’s work. The WRCOSOF shall provide a description of the work including a brief work scope statement, location, required permits, any support required from the Owner including inspections or hold points, special precautions about the planned work, and potential impacts such as contamination and service interruption. The form must describe contractor activities and deliveries at the jobsite.

- This Work Release for Construction/Services Organization Form (WRCOSOF) will be used to obtain daily work release approval from the on Shift Operations Manager (SOM). The SOM is the Release Authority (RA) for the facility. The WRCOSOF is provided by the Contractor.

- Only work scope identified in an individual contract release may be released. Daily work will be limited by CHPRC Facility Work Authorization to work described on an approved WRCOSOF form, unless additions are approved by the BTR / FWS to facilitate unforeseen changes to the planned day’s work scope.

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COORDINATION

1.2 NOTE: The end-of-the-day meeting will be a Plan of the Day (POD) to plan the following day’s work activities. The POD is a conference call every working day at 2:30 PM. The BTR will provide call in information.

1.3 Hazard Identification and Mitigation

The Contractor will develop and maintain a work site Job Hazard Analysis in accordance with PRC-PRO-SH-40078 – Contractor Safety Processes, Appendix I – Job Hazard Analysis Process for Subcontractors

PART 2 – PRODUCTS
Not Used

PART 3 – EXECUTION
Not Used

END OF SECTION
PART 1 – GENERAL

1.1 CONTROL POINTS

1.1.1 Basic reference points, bench marks, and other survey data are shown on the Drawings. CHPRC will provide survey monuments and locations.

1.2 QUALITY CONTROL

1.2.1 Quality Controls (e.g., inspections, tests, material identification, nonconformance control, etc.) shall be established, implemented, and documented using a graded approach to verify that design requirements are appropriately satisfied during construction. The specific controls shall be specified in Quality Assurance Plans and implemented through a combination of project procedures, drawings, specifications, and inspection/test plans. See Section 01400.

1.2.2 Structural alignment, support location, and grades: For surveying Work, use of a land surveyor registered in the State of Washington is required.

1.2.3 Layout: Use personnel who are trained, skilled, and experienced in construction staking.

1.2.4 Deliverable Documentation: Deliver field notes, records and documentation for Work under this Section in accordance with Section 01720.

1.3 PROCEDURE

1.3.1 Before construction activity and in field, verify control points provided by this section. Verification shall include horizontal coordinates and elevations. Report discrepancies to CHPRC before proceeding with construction.

1.3.2 Using control points, establish reference points for structural alignment, support location, grades, layout and other construction activity. Record horizontal and vertical data for reference points.

1.3.3 Preserve control points, reference points, stakes and other established markers until either removal is authorized by CHPRC or Work is completed.

1.3.4 Refer to the Contract document Part IV., Special Provisions – Construction Services SP-4’s reference clause FAR 52.256-27, “Layout of Work.”
SECTION 01050
FIELD ENGINEERING

PART 2 – PRODUCTS
Not Used

PART 3 – EXECUTION
Not Used

END OF SECTION
PART 1 – GENERAL

1.1 REFERENCES

1.1.1 The following documents and others referenced herein form part of Contract to extent designated in this section. Referenced documents are those current as of the date of this section unless otherwise indicated.

1.1.1.1 Department of Energy (DOE)

0336 Hanford Site Lockout/Tag out Procedure
0343 Hanford Site Stop Work Procedure
0344 Hanford Site Excavating, Trenching and Shoring Procedure (HSETSP)
0346 Hanford Site Fall Protection Program (HSFPP)
0359 Hanford Site Electrical Safety Program (HSESP)
0360 Hanford Site Confined Space Procedure (HSCSP)
DOE-RL-92-36 Hanford Site Hoisting and Rigging Manual

1.1.1.2 Washington State Department of Ecology (Ecology)

State Waste Discharge Permit

1.1.1.3 National Fire Protection Association (NFPA)

1 Fire Code
70-2017 National Electrical Code (NEC)
70E-2018 Standard for Electrical Safety in the workplace

1.2 SUBMITTALS

Not Used

1.3 SUMMARY

1.3.1 Work elements requiring Hanford Site permits are identified in this section. Permits will be provided by CHPRC at no cost, unless otherwise stated.

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PERMITS

1.3.2 Notify CHPRC 7 working days in advance of work requiring permit (unless otherwise stated) and furnish requested information. Post permit in a conspicuous location and ensure employees' awareness of permit contents. Meet the requirements set forth in permit.

1.3.3 Permits identified in this section and other sections of the Contract may require use or approval of forms and requests that are not titled as permits but generically referred to as permits. Contractor shall comply with requirements identified on those forms and requests.

1.3.4 If radiological conditions are encountered during performance of the Work, an RWP may be required or contact Radiological Control and request a Radiological Screening in accordance with A-6004-634, “CHPRC Radiological Hazard Screening Form.” Note: Intrusive work in the 200-E-114-PL URMA requires the immediate area to be posted as an RBA. This will occur during the trenching across the URMA to support the utilities install. Personnel working within the RBA will require dosimetry and Radiological Worker II training.

1.3.5 It is not anticipated that cultural materials or protected plants or animals will be encountered during project activities in previously disturbed areas. However, workers are to be instructed to watch for bones or possible historic artifacts, especially during excavation. If cultural materials are encountered, stop work within the immediate vicinity of the find and notify CHPRC.

1.3.6 Contractor shall watch for cultural materials such as bones or historic artifacts during field work on the Hanford Site. Contractor shall notify Buyer at least 24 hours in advance of performing excavations to arrange for monitoring by cultural resource experts. No excavation may proceed without such monitoring. If cultural materials are encountered, stop work within the immediate vicinity of the find and notify CHPRC.

Migratory birds may be present at this site and nesting activities shall not be disturbed. If field work is to be initiated during active nesting season (i.e., between mid-March through end of July), Contractor shall contact CHPRC to initiate a review of the area where the work is to be performed to make sure no nesting is occurring within the affected area). Workers are to be instructed to watch for active nests. If active nests and/or any nesting birds are encountered, or birds exhibit defensive behavior, the Contractor shall stop work in the immediate vicinity of the nest and shall contact CHPRC for additional review and required action.

Ground-disturbing activities have the potential to spread and increase noxious plants. Vehicles should stay on existing roadways, graveled areas, and bare areas to the extent possible.

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1.4 PERMITS

1.4.1 Asbestos Work Plan: Required prior to asbestos (Class I or Class II) work is performed. (Not anticipated for this project)

1.4.2 Hanford Site Confined Space Hazard Identification (A-6005-724): Required to access potential confined spaces and obtain a Confined Space Entry Permit.

1.4.3 Hanford Confined Space Entry Permit (A-6005-717): Required prior to entry into any area determined to be classified as a Confined Space and containing conditions detrimental to employee safety in accordance with DOE-0360.

1.4.4 Electrical Installation Permit (A-6005-707): One permit covers new electrical installation work governed by the National Electrical Code (NFPA 70).

NOTE: Electrical installations require NEC compliance inspection by a qualified NEC Inspector in accordance with DOE-0359.

1.4.5 Energized Electrical Work Permit (A-6005-704): Required for work on existing electrical systems.

1.4.6 Hanford Site Excavation Permit. In accordance with DOE-0344. Required for excavation involving hand digging greater than 12 inches in depth, or machine digging.

1.4.7 Portable Ladder Use: Required when fall exposure is 6 feet or greater and the use of conventional fall protection in accordance with DOE-0346 is infeasible or creates a greater hazard. Permit to be accessible during performance of work. Note that it is CHPRC’s intent that other options are explored before the use of ladders will be authorized (e.g., scaffolding or platforms) “Ladders Last”.

1.4.8 Fire Marshal Permit: Notify CHPRC in accordance with SP-4. Required when fire alarm systems, fire sprinkler systems, underground fire water lines, or fire hydrants will be taken out of service; for new construction and demolition; for occupancy of buildings or structures, including relocatable temporary structures; when using combustible chemicals, compressed gas, explosives, and flammable/combustible liquids; when using fueled equipment or heat-producing appliances; when performing cutting/welding or outdoor burning; when road closures are necessary; for off-road vehicle travel; and for any activity falling under the scope of NFPA 1. Fire Marshal Permits shall be obtained in accordance with PRC-PRO-FP-40422, Fire Marshal Permit Interfaces.
SECTION 01065
PERMITS

1.4.9 Hanford Site Oversize/Overweight Permit (A-6003-609): Required for each vehicle and/or non-reducible load that exceeds the dimensions or weights shown in SP-4.

1.4.10 Hot Work Permit (A-6006-115): Required prior to performing any work which may produce a spark, arc, or flame on the Hanford Site. Hot work permits shall be obtained in accordance with PRC-PRO-FP-40421, Hot Work.

1.4.11 Nonemergency Hydrant Tie-In Permit (A-6003-681): Required for any water being obtained through an existing hydrant. Contractor shall notify CHPRC a minimum of 2 weeks prior need, in accordance with SP-4.

1.4.12 Radiological Work Permit (A-6004-602): Required prior to performing any work within a radiological posted area. **Intrusive work in the 200-E-114-PL URMA requires the immediate area to be posted as an RBA. This will occur during the trenching across the URMA to support the utilities install.**

1.4.13 Utility/System Outage Permit: This permit is required prior to Lockout/Tag-out isolation of any facility equipment, systems, and/or utilities in accordance with SP-5 and DOE-0336. Notify CHPRC 15 days prior to need date. To obtain permit issue an MSA Service Request at the following link:

http://msc.rl.gov/ServiceCatalog/page.cfm/Utilities

1.4.14 State Waste Discharge Permit: CHPRC has already obtained the required permit. No discharges of water are allowed or authorized within 300 horizontal feet of any known WIDS Sites, crib, catch basin, infiltration trench, or underground disposal area.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

END OF SECTION
PART 1 – GENERAL

1.1 REFERENCES

1.1.1 The following documents and others referenced therein form part of Contract to extent designated in this section. Referenced documents are those current as of the date of this section unless otherwise indicated.

1.1.1.1 Code of Federal Regulations (CFR)

Title 29 Labor

Part 1910 Occupational Safety and Health Administration (OSHA)

Part 1926 Safety and Health Regulations for Construction

1.1.1.2 Department of Energy, Richland Operations (DOE / DOE-RL)

92-36 Hanford Site Hoisting and Rigging Manual

0343 Hanford Site Stop Work Procedure

0336 Hanford Site Lockout/Tag out Procedure

0344 Hanford Site Excavating, Trenching, and Shoring Procedure (HSETSP)

0346 Hanford Site Fall Protection Program (HSFPP)

0352 Hanford Site Respiratory Protection Program

0359 Hanford Site Electrical Safety Program (HSESP)

1.1.1.3 Institute of Electrical and Electronics Engineers (IEEE)

C2 National Electrical Safety Code (NESC)

1.1.1.4 National Fire Protection Association (NFPA)

70-2017 National Electrical Code (NEC)
SECTION 01110  
OCCUPATIONAL SAFETY & INDUSTRIAL HYGIENE

70E-2018 Standard for Electrical Safety in the Workplace

1.2 SUBMITTALS

1.2.1 See Section 01300 for submittal process.

1.2.2 Approval Required

1.2.2.1 Safety and Health Program: PRC-PRO-SH-40078, Contractor Safety Processes Appendix F is the preapproved safety and health procedure; however, Contractor may submit, with proposal, an alternate safety program. The alternative program shall comply with federal, state, and local codes and PRC-PRO-SH-40078, Appendix F.

1.2.2.2 Designated Safety Representative: Before starting work, submit name of individual identified as the “Designated Safety Representative,” if the Contractor has more than one employee working on site in performance of this contract, in accordance with the Contract document Part IV, Special Provisions – On-Site Services (SP-5). Contractor shall notify the Contract Specialist if the name of the Designated Safety Representative changes.

1.2.2.3 Job Hazard Analysis (JHA) / Activity Hazard Analysis (AHA): Prior to onsite work, submit JHA/AHA identifying safety hazards as required by this Section.

1.2.2.4 Critical Lift Plan (DOE-RL-92-36): Required to minimize the possibility of equipment failure or human error to a hoisting or forklift operation involving a load that, if mishandled, poses unacceptable circumstances.

1.2.3 Approval Not Required:

1.2.3.1 The contractor shall perform Construction Subcontractor Daily Safety Oversight Inspection Checklist (Form A-6006-924). These inspections are to be submitted to the CHPRC PTS OS&IH Manager weekly.

1.3 SAFETY

1.3.1 Contractor shall comply with the on-site provisions identified in SP-5 of the Contract.

1.3.2 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 all applicable laws, regulations and directives. The Contractor shall perform and document daily safety inspections and shall submit daily safety reports to CHPRC OS&IH Manager weekly.

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1.3.3 The Contractor and its lower-tier subcontractors 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.

1.3.4 While working within a facility or remote area, Contractor shall participate in emergency drills. Exemptions may be requested by Contractor. **NOTE: It is anticipated that a minimum of one monthly drill will take place. Drill duration approximately 2 hours**

1.3.5 Contractor shall utilize gloves that are rated as cut/puncture-resistant for all activities that present the potential for a cut or puncture to the hand. Leather gloves are not rated as cut/puncture-resistant, and are not permitted. Contractors shall still use gloves (e.g., leather, canvas, cotton, etc. as appropriate for the work activity) to prevent and/or protect the hand from abrasions and contusions. Cut-resistant gloves come in different performance strengths; the Contractor needs to exercise the right amount of care to ensure they have selected the proper type of gloves for the hazard to be encountered. CHPRC does not specify or recommend any brand-name gloves; but does require these gloves to be rated as cut/puncture resistant.

1.3.6 Contractor shall review the work scope, location, and hazards to determine if the activity is skill-based or beyond skill-based work (i.e. requires further analysis through a Job Hazard Analysis). Contractor shall ensure that contractor employee craft workers are, at a minimum, trained and qualified to the respective Craft Specific Hazard Analysis (CHA) for each craft listed and the controls associated with the CHA as well as the General Hazard Analysis (GHA).

1.3.7 Electrical Safety Requirements

1.3.7.1 Work practices and electrical safety training and qualification shall be in accordance with DOE-0359. Electrical equipment and industrial control panels delivered or brought on to the site in performance of the contract shall be labeled by an organization currently recognized by OSHA as a Nationally Recognized Testing Laboratory (NRTL). Equipment installed as part of the contract shall comply with the NEC and, where applicable, IEEE C3 (NESC).

1.4 HAZARD IDENTIFICATION

1.4.1 Submit a JHA/AHA for general office duties performed in office facilities or ground-level observations/walkthroughs in radiological-controlled areas requiring a General (Not Specific) Radiological Work Permit (RWP) only. Observation activities only are allowed under this JHA/AHA; no hands-on work activities may be performed. Only ground-level observations are permitted; no ladder/scaffolding access is allowed.
1.4.1.1 Prior to performing any other activities, Contractor shall submit a JHA/AHA for the construction activities to be performed.

1.4.1.2 JHAs/AHAs are prepared by the Contractor to address specific work activities and hazards associated with the specific work and to identify the controls necessary to eliminate or control the hazards. The JHA/AHA shall be written in such a manner as to be understood and usable by Contractor personnel in order to aid them in the identification, control, and response of potential hazards; it is not just a compliance document. To achieve the level of coordination desired, approval of the JHA/AHA are required to ensure proper safety planning and communication prior to the start of work. The JHA/AHA shall be prepared in a format provided by CHPRC, and the Contractor shall submit a JHA/AHA for approval prior to work on each release.

1.5 MEDICAL EXAMINATIONS

1.5.1 Medical examinations and Employee Job Task Analysis (EJTA) evaluation forms are required for Contractor personnel prior to starting work on the Hanford Site. See SP-5.

1.5.2 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.

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

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

3.1 CHPRC will provide Hanford medical facilities for emergency or life-threatening injury situations (those requiring immediate medical attention). All injuries, accidents, fires, and near misses shall be reported to CHPRC, including fires that are extinguished without causing damage.

3.2 To ensure worker safety, work or portions of work may be temporarily and incrementally shut down due to high winds, lightning, or other inclement weather as determined by CHPRC. Contractor shall not be additionally compensated in terms of cost or schedule for weather-related shutdowns (Refer to Contract Part IV General Provisions, Paragraph 5.3 Delays – Force Majeure). CHPRC issues the following warnings via radio system, public announcement, or in person. The Contractor shall
ensure that subcontractor personnel are apprised of the warnings and take the required actions as stated below.

The Contractor shall ensure that subcontractor personnel are appraised of the warnings and take the required actions as stated in PRC-PRO-SH-28034 ADVERSE WEATHER for:

- Lightning Safety
- Wind Conditions
- Snow and Ice Safety
- Torrential Rain and Hail Safety
- Early Release Due to Adverse Weather

In addition to these warnings, CHPRC also provides the following:

- Snow and ice removal is provided on Site roads. The Contractor shall provide snow removal and ensure safe walking and transfer conditions for walkways and access points around their offices and work areas and the job-site within the project boundaries.

- In response to winter storm conditions, CHPRC may close the Site or release Contractor's employees early. If so, CHPRC will make appropriate announcements and coordinate the closure or early dismissal.

- The Contractor shall be responsible for freeze protection in all areas turned over to the Contractor by CHPRC.

END OF SECTION
PART 1 – GENERAL

1.1 REFERENCES

1.1.1 The following documents and others referenced therein form part of Contract to extent designated in this section. Referenced documents are those current as of the date of this section unless otherwise stated.

1.1.1.1 Code of Federal Regulations (CFR)

Title 10 Energy
- Part 820 Procedural Rules for DOE Nuclear Activities
- Part 830 Nuclear Safety Management
- Part 830.122 Quality Assurance Criteria
- Part 835 Occupational Radiation Protection

Title 29 Labor
- Part 1910 Safety and Health Regulations for General Industry
- Section 1200 Hazard Communication
- Part 1926 Safety and Health Regulations for Construction

Title 40 Protection of Environment
- Part 82 Protection of Stratospheric Ozone
- Part 112 Oil Pollution Prevention

1.1.1.2 Washington State Department of Ecology (Ecology)

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1.1.1.3 National Fire Protection Association (NFPA)
30 Flammable and Combustible Liquids Code

1.1.1.4 Revised Code of Washington (RCW)
Title 46 Motor Vehicles
Chapter 46.11 Vehicle Licenses

1.2 SUBMITTALS

1.2.1 See Section 01300 for submittal process.

1.2.2 Approval Required

1.2.2.1 Waste management information: Before starting work, submit a Waste Management Plan, in accordance with the Contract document Part IV, Special Provisions – Construction Contracts SP-4 and Special Provisions – On-Site Services SP-5, for managing waste generated during work.

1.2.2.2 Safety data sheets (SDS): Before starting work, submit SDS for chemicals 1.11.2., submit detailed information relative to any anticipated process involving the application of volatile chemicals (use of a volatile cleaning agent, application of polyurethane coating, etc.) 1.11.3.

1.2.2.4 Chemical inventory: Before starting work, submit inventory of chemicals that will be brought to the worksite in accordance with SP-4, SP-5, and this Section.

1.2.2.5 Before starting work, submit inventory of air emission sources to be used on Site 1.11.

1.2.2.6 Before starting work, submit a Dust Control Plan in accordance with the Hanford Air Operating Permit requirements (WAC 173-400-040).

1.2.2.7 Before starting work, submit a list of all radioactive sources to be brought on Site 1.8.3.

1.2.3 Approval Not Required: None

1.3 WASTE MINIMIZATION

1.3.1 Minimize waste in accordance with the following waste management hierarchy.

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a. Source reduction
b. Reuse
c. Recycling
d. Compliant disposal

1.3.2 Source Reduction

1.3.2.1 Material substitution: Minimize number of chemicals used to perform same or similar tasks. Where practical, replace hazardous materials with non-hazardous or less hazardous substitutes. Before substitution, obtain approval in accordance with Section 01630.

1.3.2.2 Inventory reduction: Minimize product inventory to reduce accumulation of partially used and unused materials requiring disposal. Remove partially used lots and unused materials from worksite at Contract completion.

1.3.2.3 Packaging: Minimize packaging brought on worksite. Whenever feasible, return empty containers to vendor.

1.3.2.4 Waste segregation: Separate wastes to avoid creating additional wastes and mixtures that cannot be recycled, or that may be more difficult to manage.

1.3.2.5 Process modification: Streamline processes for more efficient operation and less waste generation.

1.3.2.6 Reuse/Recycling: Ensure that materials are reused, if possible, rather than discarded as waste.

1.4 DISPOSAL OF INERT/DEMOLITION AND NONHAZARDOUS WASTE

1.4.1 NOTE: CHPRC expects that waste materials (e.g., excavated soils/debris and asphalt/concrete rubble) will be non-radioactive; however, CHPRC Radiological Control Technicians (RCTs) will perform confirmatory am/pm surveys during all demolition and excavation activities. **Note: Due to the potential for rapidly changing radiological conditions, continuous RCT coverage will be required when excavating within 5 ft of the 200-E-114-PL URMA.**

The Contractor shall provide safe access for the RCTs to the work area to support the necessary surveys. If RCT surveys detect radioactive contamination, the Contractor shall stop work and secure the area, and the work will be replanned as required with additional controls, updated worker training requirements, and waste handling and disposal protocols. The paragraphs below address disposal of inert/demolition and nonhazardous waste.
1.4.2 Handle and dispose of inert/demolition and nonhazardous waste in accordance with the approved work package and Waste Planning Check List, Contract document Part IV, Special Provisions SP-5 – On Site Services (SP-5) and this Section. Notify CHPRC prior to shipment of inert/demolition waste for radiological survey by others if removing from contaminated area.

1.4.3 Non-hazardous: Dispose of non-hazardous debris/waste using containers provided by Contractor.

1.4.4 Any nonradioactive inert waste (i.e. broken asphalt, broken concrete, glass, brick, aluminum, stainless steel, wood, and overburden/spoils material such as rock and earth) shall be disposed of by the contractor.

1.4.5 Other waste generated on the Hanford Site such as demolition rubble, construction debris, trash, and solid waste not included in other waste categories specifically mentioned in the contract shall be dispositioned by Contractor.

1.5 HAZARDOUS WASTE

1.5.1 Hazardous materials shall be managed in accordance with SP-5. Promptly report all spills of hazardous waste.

1.5.2 Flammable/combustible liquid handling and storage shall be in accordance with NFPA 30 and PRC-PRO-FP-54137, *Control of Flammable and Combustible Liquids*.

1.6 DISPOSAL OF ASBESTOS

1.6.1 Contractor shall not perform any work that would disturb asbestos-containing material nor remove any load-bearing structures of any building without first notifying the BTR.

1.7 DISPOSAL OF DANGEROUS AND MIXED WASTE

1.7.1 Handle and dispose of dangerous and mixed waste in accordance with the approved work package and Waste Planning Check List. Hanford-specific requirements also apply to dangerous and mixed waste generated on the Hanford Site.

1.7.1.1 Notify CHPRC at least five days before generation of dangerous or mixed waste and immediately after spill and other unforeseen waste generation. Notification shall identify waste stream and provide an estimated quantity of waste to be generated.

1.7.1.2 Upon notification by Contractor, CHPRC will establish an accumulation area and provide labeled containers with tracking numbers. Contractor shall provide a digital fish scale or comparable weighing device at accumulation area(s) and shall ensure...
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personnel responsible for the accumulation area are properly trained in accordance with Section 01150.

1.7.2 Separately accumulate waste from each waste stream in accordance with the WPC.

1.7.2.1 During spill cleanup and waste accumulation, cumulatively record waste inventory on Waste Container Log (A-6004-995).

1.7.2.2 Containers are set up and managed by CHPRC. Manage waste in accordance with SP-5.

1.7.3 CHPRC will coordinate pick up and disposal of properly sealed dangerous and mixed waste after notification by Contractor.

1.7.4 CHPRC will conduct bi-weekly inspections of containers within the satellite accumulation areas and 90-day staging areas.

1.8 RADIOLOGICAL CONTROL

1.8.1 If work is deemed Radiological, the Contractor shall be subject to 10 CFR 835, the CHPRC Radiological Control Manual, CHPRC-00073, and this Section. Intrusive work (excavation) within the 200-E-114-PL URMA is deemed as radiological work

1.8.2 Contractor shall not utilize vacuum trucks or HEPA-filtered vacuums, or set up enclosures with exhaustors or similar emission units at any radioactively contaminated location on the Hanford Site without the express written approval of CHPRC.

1.8.3 The Contractor shall obtain written approval from CHPRC prior to bringing a radioactive source on site. This includes any source or equipment that contains sources (e.g. soil densitometers) that are governed under a U.S. Nuclear Regulatory Commission (NRC) license or a license by an NRC-agreement state. Licensees are required to control sources in accordance with their license. Densitometers shall be checked in daily with the facility Radiological Control Technician (RCT).

1.8.4 Contractor’s equipment utilized to perform radiological work shall be subject to an initial radiological baseline survey prior to use onsite. This survey is expected to take approximately one hour (per piece of equipment) to complete. The survey will be conducted by CHPRC-provided Radiological Control Technicians and/or Health Physics Technicians (HPTs). Contact the CHPRC to schedule the required survey upon arrival of the equipment onsite.

1.8.5 Contractor’s equipment utilized to perform radiological work may be subject to intermittent radiological surveys approximately 2 to 3 times per work day.
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Radiological surveys are expected to take between 10 – 15 minutes each. Contractor shall make equipment available for intermittent radiological surveys at the request of CHPRC-provided RCT/HPT.

1.8.6 Removal of the following requires a contamination release survey for each removal. Contractor will not be charged for survey. CHPRC will arrange for survey upon request by Contractor. Allow 8 hours for processing request and 4 hours for survey.

a. Material from radiological areas and radiological buffer areas shown on the Drawings
b. Foreign materials and discolored soil discovered during excavation
c. Equipment

1.8.7 During any work disturbing the existing ground surface, a CHPRC-provided RCT/HPT will be present to conduct intermittent radiological surveys of the excavated or disturbed material, if deemed necessary by CHPRC. The radiological surveys will be conducted on the spoils removed during soil excavation, on the newly exposed subgrade as each “lift” is removed, and on the equipment being utilized for this excavation. Contractor shall provide 2 work days prior notice to CHPRC of need for RCT/HPT coverage of any excavation or work activity that will significantly disturb the existing ground surface.

1.8.8 If radiological contamination is encountered during excavation or other work activities, Contractor shall place equipment in a safe condition and remove all personnel from area as directed by the RCT/HPT. The CHPRC Radiological Protection organization will evaluate and establish the necessary radiological controls to address the encountered conditions, and prepare a Radiological Work Permit to cover working with radiologically contaminated soils and materials.

1.8.9 Per direction of the CHPRC Radiological Protection organization, a release survey may be required to be conducted by CHPRC provided RCTs/HPTs of all equipment utilized in excavation. If required, release survey shall be conducted prior to equipment being removed from the project site. The survey is expected to take approximately one hour per piece of equipment. Contractor shall provide 2 work days prior Notice to CHPRC of need for RCT/HPT coverage to conduct required release surveys.

1.8.10 Per direction of the CHPRC Radiological Protection organization, a contamination release survey may be required for each removal of equipment or material from a Radiological Buffer Area. Contractor will not be charged for survey.
SECTION 01130
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1.8.11 If survey reveals that equipment or material is not radiologically contaminated, remove equipment and dispose of material as planned.

1.8.12 If survey reveals that equipment or material is radiologically contaminated, dispose in accordance with direction from CHPRC. CHPRC will determine if release back to the Contractor is possible. If not possible, the Contractor will be compensated for items taken.

1.9 DISPOSAL OF RADIOACTIVE WASTE

1.9.1 As noted in paragraph 1.4.1, CHPRC expects all demolition and excavated wastes to be uncontaminated and the Contractor shall initially plan its work accordingly. However, if the Radiological Control activities described in Paragraph 1.8 determine that the Contractor has encountered radioactive materials, these materials will need to be disposed of at the Hanford Site Environmental Restoration and Disposal Facility (ERDF) and the work will be re-planned. CHPRC will provide specific direction to the Contractor regarding management and disposal of radioactive soils, broken asphalt and concrete, and other materials via a Change if such materials are encountered.

1.10 NUCLEAR AND CRITICALITY SAFETY

1.10.1 If work is deemed nuclear-related, the Contractor shall be subject to 10 CFR 830.122, and the enforcement actions under 10 CFR 820.

1.11 LIQUID EFFLUENTS

1.11.1 In accordance with the Contract documents Part IV, Special Provisions SP-4 – Construction Contracts (SP-4), SP-5, and PRC-PRO-SH-40078 - Contractor Safety Processes, when the Contractor brings chemicals on site, the activity is subject to CHPRC’s Chemical Management System Program. The Contractor shall fill out and keep current a Chemical Inventory Worksheet (form A-6004-750).

1.11.2 Safety Data Sheets (SDS) for chemicals that will be used during the work activity shall be kept current. Contractor shall provide the list to the assigned BTR when list has been updated.

1.11.3 Contractor shall submit detailed information relative to any anticipated process involving the application of volatile chemicals (e.g., use of a volatile cleaning agent, application of polyurethane coating, etc.).

1.11.4 Concrete rinsate discharge locations require approval by CHPRC. Concrete rinsate discharge authorization forms shall be completed and approved prior to discharge.

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1.11.5 Liquid discharge for hydro testing, flushing, or other construction operation other than dust control, requires pre-approval by CHPRC and shall be performed in accordance with the State Waste Discharge Permit.

- No water shall be discharged within 100 horizontal feet of any known crib, catch basin, infiltration trench, or underground disposal area.

- No discharge shall be allowed within a surface contaminated area (areas with dangerous waste and/or radioactive contaminants), unless discharge is an approved incidental release.

- Other restrictions identified in the State Waste Discharge Permit and the accompanying conditions include the need to reuse/recycle and the need to discharge to the Treated Effluent Disposal Facility; discharge rate, volume, additives, source water, contaminants, and logging are also covered in permit conditions (Pollution Prevention and Best Management Practices section).

1.12 AIR EMISSIONS

1.12.1 The following emissions are regulated and shall comply with applicable federal, state, and local laws, regulations and requirements:

  a. Fugitive emissions and dust.
  b. Abrasive blasting.
  c. Ozone-depleting substances.
  d. Non-routine (unplanned) emissions.
  e. Radioactive airborne emissions (from disturbing contaminated soil).

1.12.2 Contractor shall take reasonable precautions to minimize fugitive dust during performance of this work.

1.12.2.1 A dust control plan prepared in accordance with the Hanford Air Operating Permit requirements (WAC 173-400-040) shall be submitted by the Contractor and shall be approved by the Buyer prior to commencement of work activities.

1.12.2.2 Any new work which may cause a potential for radioactive dust requires prior BTR approvals since extra measures to prevent and/or control dust may be required.

1.12.3 Contractor shall not conduct open burning without the express written approval of BTR or CM.

1.12.4 Air emission sources also include non-road internal combustion engines for power generator or air compressor, loader, backhoe, welder, chain saw, etc. Licensed motor vehicles, pursuant to RCW 46.16 are exempt from the inventory. However, mounted
SECTION 01130
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internal combustion engines not used to propel the vehicle (e.g.; mounted generator) shall be inventoried.

1.12.5 The Contractor shall comply with PRC-PRO-SH-40078 - Contractor Safety Processes, Appendix F, Section 2.15, for controlling exposures to airborne hexavalent chromium. These requirements are specifically applicable to welding, grinding, torch-cutting, metal buffing and metal polishing, and spray painting activities.

1.13 CONTINGENCIES

1.13.1 Isolate and secure spill area in a manner that protects human health and the environment. Take direct action if nature of spilled or unforeseen waste material is known and if material can be immediately and safely absorbed, neutralized, or otherwise controlled.

1.13.2 Notify CHPRC upon occurrence or discovery of hazardous substances and non-hazardous material spills and of unforeseen dangerous waste generation. Notification shall identify waste stream if known and include identification and quantity of waste. Clean up areas contaminated by spilled material and manage spill residues in accordance with this Section.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION
PART 1 – GENERAL

1.1 REFERENCES

1.1.1 The following documents and others referenced therein form part of Contract to extent designated in this section. Referenced documents are those current as of the date of this section unless otherwise stated.

1.1.1.1 Code of Federal Regulations (CFR)

<table>
<thead>
<tr>
<th>Title</th>
<th>Part</th>
<th>Description</th>
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<tbody>
<tr>
<td>49</td>
<td>383</td>
<td>Commercial Driver’s License Standards</td>
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<td>Federal Motor Carrier Safety Regulations</td>
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<td>49</td>
<td>851</td>
<td>Worker safety &amp; Health Program (851.25)</td>
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1.1.1.2 Department of Energy, Richland Operations (DOE / DOE-RL)

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
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<tbody>
<tr>
<td>92-36</td>
<td>Hanford Site Hoisting and Rigging Manual</td>
</tr>
<tr>
<td>0336</td>
<td>Hanford Site Lockout/Tag out Procedure</td>
</tr>
<tr>
<td>0343</td>
<td>Hanford Site Stop Work Procedure</td>
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<tr>
<td>0344</td>
<td>Hanford Site Excavating, Trenching, and Shoring Procedure (HSETSP)</td>
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<tr>
<td>0346</td>
<td>Hanford Site Fall Protection Program (HSFPP)</td>
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<tr>
<td>0352</td>
<td>Hanford Site Respiratory Protection Program</td>
</tr>
<tr>
<td>0359</td>
<td>Hanford Site Electrical Safety Program (HSESP)</td>
</tr>
<tr>
<td>0355</td>
<td>Hanford Standardized HAZWOPER Training Program Description</td>
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1.1.1.3 Washington Administrative Code (WAC)

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<tr>
<td>296</td>
<td>Department of Labor and Industries</td>
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</table>

1.2 SUBMITTALS

1.2.1 See Section 01300 for submittal process.

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TRAINING AND QUALIFICATIONS

1.2.2 Approval Required

1.2.2.1 Before starting work, submit documentation of successful completion of training requirements and certification that all training is current.

1.2.3 Approval Not Required

1.2.3.1 Hoisting and rigging: 5 days after starting work, complete on-the-job-evaluation (OJE) required for hoisting and rigging operations as stated in 1.3.1.8.

1.3 REQUIREMENTS

1.3.1 General

1.3.1.1 Contractor is expected to provide appropriately trained and qualified staff to perform the type of work associated with their skill of craft (Electrician, Pipefitter, etc.) at the Hanford Site. The Contractor shall provide a base staff consisting of a safety representative (SR) and Field Superintendent (FS) to administer the work.

1.3.1.2 The Contractors workforce will be required to complete the Construction Contractors Worker/Craft Safety Orientation (A-6006-763) prior to performing work on the site.

1.3.1.3 Personnel Qualification

The Field Superintendent (FS) shall be present during all craft work; the FS & SR shall be present on site daily for the pre-job meeting and for coordination while craft are performing work scopes.

Project Manager

• Minimum 10 years of Project Management Experience for Civil Projects of similar type and complexity to this SOW. Minimum of 5 years of DOE Project Experience required.

On-Site Safety Representative

• Must have a Construction Health and Safety Technician Certification or Occupational Health and Safety Technologist Certification by the Council on Certification of Health, Environmental and Safety Technologists, or be an Associate Safety Professional or a Certified Safety Professional from the American Board of Certified Safety Professionals.

• 10 years full time experience in a safety and health position in industrial safety, and familiar with radiological contaminated materials and chemical and hazardous material handling experience.
SECTION 01150
TRAINING AND QUALIFICATIONS

- OSHA 10 hour training required

On-site Field Superintendent

- Contractors on site Field Superintendent shall be dedicated 100% to the project. The Superintendent will be based on site and will be a non working Superintendent (not permitted to operate equipment, machinery or perform hands on craft duties)

- Contractor’s proposed Superintendent must have prior working experience as a field superintendent whose work experience includes successful and satisfactory completion of a construction project within the past five (5) years that involved work under high hazard and radiological conditions in a nuclear environment.

- This standard is met with the submittal of a resume with proposal for Contractor’s Superintendent which, along with CHPRC-confirmed work experience, demonstrates that the individual proposed as the Superintendent has previous Hanford site or DOE construction services contract experience that included high hazard work and that the individuals’ work was performed to the satisfaction of the customer.

- 10 years general construction experience.

- 5 years Supervisory Level, which shall include labor management associated with bargaining units.

- Familiar with supervising work involving radiological contaminated materials and chemical and hazardous material handling experience.

- OSHA 10 hour training required

Fall Protection Competent Person

- The Fall Protection Competent Person shall meet the criteria as defined in the HSFPP and the Contractor shall submit proof of completion of course 600058 prior to the start of work.

Excavation, Trenching and Shoring Competent Person

- The Excavation, Trenching and Shoring Competent Person shall meet the criteria as defined in the HSETSP and the Contractor shall submit proof of completion of course 600056/750000 prior to the start of work.

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- Contractor will be required to comply with DOE-0344 “Hanford Site Excavating, Trenching & Shoring Procedure” (HSETSP) – Results from a recent Site Ground Penetrating Radar (GPR) identifying the existing underground site utilities are attached as Attachment F.

1.3.1.4 Task- and facility-specific training is required in this Statement of Work, the Contract Provisions, and other documents referenced herein. The training listed may not be all-inclusive of training required.

1.3.1.5 Required training shall be completed prior to related work being performed.

1.3.1.6 CHPRC will provide task- or facility-specific training required for the Hanford Site, which includes the class, instructor, and required training material. Contractor is responsible for cost of labor to complete all required training.

1.3.1.7 When offsite equivalent training is available, Contractor is responsible for all training costs. CHPRC will provide equivalent onsite training or reimbursement for any equivalent onsite/offsite training costs approved by CHPRC prior to training.

1.3.1.8 CHPRC will provide for on-the-job evaluations (OJE) when they are required by Contract.

1.3.1.9 For previous training to be acceptable for Hanford Site qualification, documented evidence shall include type and class of equipment. For qualifications not related to equipment operation, personnel shall have documented evidence of training and experience related to an activity covered under this Contract.

1.3.1.10 Contractor shall maintain copies of personnel training records at the jobsite.

1.3.2 Site-Required Training

1.3.2.1 CHPRC General Employee Training (CGET) or Hanford Site Orientation (HGET): Mandatory for all Contractor and sub-tier Contractor personnel performing work on the Hanford Site. Previous CGET training may be acceptable. Contact CHPRC.

1.3.2.2 When performing work in a CHPRC-designated operating nuclear facility, Contractor personnel shall receive all required Facility Emergency Hazard Identification Checklist (FEHIC) training, facility safety basis overview, and facility system overview prior to performing work.

1.3.3 Qualification Training

1.3.3.1 Electrical work scope shall be performed by qualified electrical workers and qualified instrument specialists in accordance with DOE-0359. Completion of CHPRC

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Electrician Qualification Verification Checklist Course 60038A or 60038B shall be required. Submit completed checklist prior to onboarding any electricians to perform work.

1.3.3.2 Hanford Site Hoisting and Rigging Manual (DOE-RL-92-36) provides qualification for rigging operations. The Contractor may submit employee record of equivalency (i.e., experience and union affiliation), but is required to pass a written or oral examination; operators of cranes, forklifts, and aerial lift personnel performing rigging activities shall also satisfactorily complete an OJE.

1.3.4 Note: Employee training is tailored to the work task performed by each employee. Contractor shall submit a training matrix for the Contractors and their Subcontractors personnel to identify worker assignment and applicable training required and current status of completed training for each employee. Personnel will not be permitted to commence work in advance of completing the required training requirements.

1.3.5 Task specific or unique training or qualifications required for this task includes (but is not limited to) the following courses.
<table>
<thead>
<tr>
<th>Hanford Course No.</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>000001</td>
<td>HGET - CBT</td>
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<tr>
<td>000006</td>
<td>CGET – CBT</td>
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<tr>
<td>600026</td>
<td>Integrated Disposal facility Emergency &amp; Information Checklist</td>
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<td>170664</td>
<td>Hoisting &amp; Rigging Manual (DOE-RL-92-36) Overview</td>
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<tr>
<td>040784</td>
<td>Basic Crane &amp; Rigging Safety</td>
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<tr>
<td>042865</td>
<td>Advanced Rigging (OJE)</td>
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<td>042310</td>
<td>Advanced Rigging Techniques</td>
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<td>042860</td>
<td>Incidental Rigging (OJE)</td>
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<td>042321</td>
<td>Mobile Crane Operation and Setup</td>
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<td>042327</td>
<td>Load Charts &amp; LMI Initial Training</td>
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<td>042930</td>
<td>Mobile Crane Inspection</td>
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<td>045100-045146</td>
<td>Mobile Crane (OJT)</td>
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<td>Critical &amp; Special Lifts (DL Only)</td>
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<td>Forklift Operational Safety</td>
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<td>Forklift - (OJE)</td>
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<td>043832</td>
<td>Aerial Lift Safety</td>
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<td>044681, or 04468A-E</td>
<td>Aerial Lift Operator OJE</td>
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<tr>
<td>600078</td>
<td>CHPRC Vehicle Spotter Awareness Training</td>
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<td>042730</td>
<td>Flagging &amp; Traffic Control</td>
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<td>050411</td>
<td>Load Securement for Drivers &amp; Traffic Personnel</td>
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<td>044605</td>
<td>Equipment Operation Near Power Lines</td>
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<td>020001</td>
<td>Initial Rad Worker II (Required for personnel excavating in URMA 200-E-114-PL)</td>
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<td>031220</td>
<td>40-hour Hazardous Waste Worker</td>
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<td>031310</td>
<td>8-hour Hazardous Waste Site Manager/ Supervisor</td>
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<tr>
<td>031420</td>
<td>3-Day Supervised Field Experience</td>
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### TRAINING AND QUALIFICATIONS

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<th>Code</th>
<th>Description</th>
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<tr>
<td>026100</td>
<td>OSHA 10-Hour Health and Safety (FWS &amp; Safety only)</td>
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<td>170500</td>
<td>Basic Medic First Aid/CPR/AED (FWS &amp; Safety only)</td>
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<td>044400</td>
<td>Fire Watch Training</td>
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<tr>
<td>044480</td>
<td>Basic Electrical Safety Training</td>
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<td>043870</td>
<td>NFPA-70E Standards for Electrical Safety</td>
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<td>600330</td>
<td>CHPRC Qualified Electrical Supervisor Checklist</td>
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<td>020147</td>
<td>Fall Hazard Recognition and Prevention</td>
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<td>020148</td>
<td>Fall Protection PFAS User Practical Exam</td>
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<td>600058</td>
<td>CHPRC Competent Person – Fall Protection</td>
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<td>644391</td>
<td>CHPRC Portable Ladder Safety - CBT</td>
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<td>600060</td>
<td>CHPRC Competent Person Portable Ladder Inspection</td>
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<tr>
<td>600056</td>
<td>CHPRC Competent Person - Excavation</td>
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<td>750000</td>
<td>Excavation, Trenching and Shoring Competent Person Training</td>
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<td>003131</td>
<td>Hanford Site Lockout/Tag out for Authorized Worker – Initial</td>
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<td>644371</td>
<td>Users Scaffold Safety - CBT</td>
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<td>044372</td>
<td>Scaffold Safety for Inspectors</td>
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<td>044373</td>
<td>Scaffold Safety for Erectors/Dismantlers</td>
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<tr>
<td>020134</td>
<td>Hanford Site Confined Space Entry</td>
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<tr>
<td>020066</td>
<td>Respiratory Knowledge Based Initial</td>
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<tr>
<td>620193</td>
<td>CHPRC Temperature Extremes - CBT</td>
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<td>620194</td>
<td>CHPRC Hearing Conservation - CBT</td>
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<td>200207</td>
<td>Respirable Crystalline Silica Awareness – CBT (Concrete cutting)</td>
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<tr>
<td>200208</td>
<td>Respirable Crystalline Silica – Competent Person – CBT (Concrete cutting)</td>
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</table>

1.3.6 Other Training

Not Used
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TRAINING AND QUALIFICATIONS

PART 2 - PRODUCTS
Not Used

PART 3 - EXECUTION
Not Used

END OF SECTION
PART 1 – GENERAL

1.1 SUMMARY

1.1.1 General purposes of conferences and meetings addressed in this Section are coordination, control, and direction of the Work. In addition to meetings addressed by this Section, Contractor may be required by other Sections and other Contract documents to conduct special-purpose meetings and various safety meetings and briefings.

1.1.2 CHPRC will issue meeting notices and prepare an agenda and minutes for each conference and meeting addressed in this Section. When applicable, minutes will identify action items, assigned actionees, and due dates.

1.2 SITE LABOR CONFERENCE

1.2.1 Before start of Work, Contractor shall conduct a conference at a time and Hanford Site location agreed upon by Contractor and the Labor Organization representatives.

1.2.2 Invited attendees shall include CHPRC, Contractor, subcontractors, Labor Organizations representing utilized crafts, and others having an interest in Hanford Site labor requirements.

1.2.3 Purpose of the conference is familiarization of project participants with Hanford Site labor requirements. Conference shall last approximately one hour and shall include a presentation by the Contractor of the proposed craft utilization and work plan.

1.3 PRECONSTRUCTION CONFERENCE

1.3.1 Before start of the Work, CHPRC will conduct a conference at a time and Hanford Site location agreed to by Contractor and CHPRC.

1.3.2 Invited attendees will include CHPRC, Contractor, subcontractors and others having an interest in the Work.

1.3.3 Purpose of the conference is the coordination of Work startup and familiarization of project participants with the Work and worksite. The conference will last approximately two (2) hours and will include the following agenda.

a. Certified payrolls

b. Construction Progress Meetings

c. Forms required by the Contract. CHPRC will provide reproducible masters

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PROJECT MEETINGS

- Construction Daily Activity Report (A-6004-822)
- Work Release for Construction Service Organization (A-6004-967)
- CHPRC – Change Form (A-6004-820)
- Chemical Inventory Worksheet (A-6004-750)
- CHPRC Contractor Document Submittal Form (A-6004-757)
- Request for Clarification or Information (RCI) (A-6004-833)
- CHPRC Craft-Specific Job Safety Analysis/Position Hazard Analysis (K-1 JSA/PHA) (A-6004-783)
- Job Hazard Analysis/Activity Hazard Analysis (JHA/AHA) for Subcontractors (A-6004-784)
- Task-Specific Job Safety analysis (K-3 JSA) (A-6004-785)
- Significant Discharge Log (A-6002-294)
- Contractor – Job site safety inspection/observation checklist (A-6004-815)
- Other Site Forms that may be reviewed at this meeting:

<table>
<thead>
<tr>
<th>Form No.</th>
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<tbody>
<tr>
<td>A. Form A-6005-436</td>
<td>Generator Initial Start-Up Checklist</td>
</tr>
<tr>
<td>B. Form A-6005-437</td>
<td>Hanford Generator Re-Start-Up Checklist</td>
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<tr>
<td>C. Form A-6004-929</td>
<td>Construction Completion Document</td>
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<tr>
<td>D. Form A-6004-590</td>
<td>Waste Planning Checklist</td>
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<tr>
<td>E. Form A-6004-952</td>
<td>Formal Pre-Job Briefing Checklist</td>
</tr>
<tr>
<td>F. Form A-6006-539</td>
<td>Construction Lost Time / Work Delay Notification</td>
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<tr>
<td>G. Form A-6004-286</td>
<td>Fall Protection Work Permit</td>
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<tr>
<td>H. Form A-6006-914</td>
<td>Mobile Equipment Daily Pre-Use Inspection Checklist</td>
</tr>
<tr>
<td>I. Form A-6006-916</td>
<td>Mobile Equipment Operation Worksite Pre-Use Checklist</td>
</tr>
<tr>
<td>J. PTS-PD-19-01</td>
<td>Compensatory Actions for Conduct of Operations Events</td>
</tr>
<tr>
<td>K. PTS-PD-19-02</td>
<td>Compensatory Action for LO/TO Events</td>
</tr>
<tr>
<td>L. Form A-6005-414</td>
<td>PRC ERDF Container Verification Data Sheet</td>
</tr>
</tbody>
</table>

d. Material and equipment lists

e. Points of contact and key personnel representing the Contractor and CHPRC. Areas covered will include safety, quality assurance and quality control, Price
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PROJECT MEETINGS

Anderson Amendment Act (PAAA), acceptance inspection, and construction engineering

f. Quality requirements
g. Report requirements
h. Safety
i. Schedule requirements, schedule constraints, and work limitations
j. Submittals

1.4 CONSTRUCTION PROGRESS MEETINGS

1.4.1 Every week CHPRC will conduct a progress meeting at time and Hanford Site location determined during the Preconstruction Conference.

1.4.2 Invited attendees will include CHPRC, Contractor, and subcontractors.

1.4.3 The purpose of the meetings is the exchange of Work-related information. Average meeting will last approximately 3 hours and will include the following agenda items:

a. Safety
b. Quality Assurance
c. Progress
d. Submittal Status
e. Schedule, Cost and Construction Status
f. Requests For Information – Status
g. Design and Scope Changes
h. Material and Equipment Status
i. Problem Areas

1.4.4 Contractor to provide six (6) copies of 2-week look-ahead schedule for review during the meeting. Refer to Section 01315 for level of detail required on 2-week look-ahead schedule.

1.4.5 The Contractor shall complete Construction Daily Activities Field Reports (A-6004-822, Rev 3) and Lost Time/Work Delay Notification (A-6006-539 Rev.1) if applicable. The Contractor shall provide CHPRC with a Construction Daily Activities Field Report identifying detailed work activities performed for the day: craft by name/hours worked and company, Supervision, by name/hours worked and company, any detailed problems/issues/delays, vehicles/equipment used, detailed work activities planned for the next day, Safety observations, Lost Time/Work Delay
SECTION 01200
PROJECT MEETINGS

Block #14, etc. Construction Daily Activities Field Reports shall be submitted by Work Package to CHPRC by 10:00 a.m. each work day documenting the previous work day’s activities. DAR’s will be filled out until the project is completed or terminated. **A DAR WILL BE SUBMITTED ON DAYS WHERE NO WORK HAS BEEN PERFORMED.**

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

END OF SECTION
SECTION 01300
SUBMITTALS

PART 1 – GENERAL

1.1 SUMMARY

This Section provides the general procedures and requirements for preparing and processing submittals. Required submittals are identified in other Specification sections, other Contract sections, and the CHPRC OS/IH Manual. Required submittals are also summarized by CHPRC on the Master Submittal Register. An example submittal register is shown in this Section. The submittal register may not be all-inclusive, and identifies documents required with proposal submittal, post-award / prior to Notice-To-Proceed (NTP), and post NTP.

1.1.1 Requests for substitutions are prepared in accordance with Section 01630 and processed in accordance with this Section. “Deliverable documents” differ from submittals and are processed in accordance with Section 01720. Deliverable documents are Quality Assurance documents and are required by technical sections of the Specification.

1.2 CLARIFICATIONS

1.2.1 Contract documents take precedence if a conflict exists between Contract documents and the submittal register. Immediately notify CHPRC of discrepancies in the submittal register.

1.2.2 Approval of a specific item does not constitute approval of a system or assembly of which an item is a component.

1.2.3 Materials and equipment that differ from approved submittals are subject to rejection and replacement at Contractor’s expense.

1.2.4 Delays arising from failure to provide required submittals in a timely manner will not constitute excusable delays for extension.

1.2.5 Standard processing time of submittals by CHPRC is under 1 week and is measured from date of submittal’s receipt by CHPRC to date of return mailing.

1.3 SUBMITTAL BY CONTRACTOR

1.3.1 The Contractor submittals identified herein on the submittal register shall be submitted to CHPRC Construction Document Control by the Contractor using the Contractor Document Submittal (A-6004-757). Instructions for completion of the submittal are included with the form.
SECTION 01300
SUBMITTALS

1.3.2 The quantity, frequency, and type of submittal shall agree with the requirements set forth on the submittal register. The submittal number shall be entered on the submittal form by the Contractor in accordance with the submittal register. This number is used to identify each submittal.

1.3.3 When any submittal is returned to the Contractor with a request to resubmit (i.e., marked as: “B-yes” “Minor Comments – Approved With Exceptions as Corrected Re-submittal Required”; or “C” “Not Approved Revise and Resubmit”) the Contractor shall resubmit all corrected documents within the time specified on the returned submittal form, or if no time is specified, within 5 working days from the disposition date.

1.3.4 Contact the Contract Specialist if additional submittal numbers are required.

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

1.4 MASTER SUBMITTAL REGISTER

A submittal register is provided as Attachment D to this SOW

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

END OF SECTION
PART 1 – GENERAL

1.1 SCHEDULES

1.1.1 Schedule Preparation

1.1.1.1 Prepare schedules using commercial project planning software. Preferred software (used by CHPRC) is Primavera Project Planner (P6). Other project planning software may be used if Contractor provides software translation capability to and from Primavera.

1.1.1.2 A sample P3 Activity Code Structure and Work Breakdown Structure (WBS) will be provided to the Contractor in order to assist in the preparation of the Construction Schedule, which will enable communication and downloading of the Contractor’s schedule with CHPRC IMES Schedule system.

1.1.1.3 Identify initial project schedule as Revision 0. This schedule, when approved, is the baseline project schedule.

1.1.2 See Section 01300 for submittal process.

1.1.3 Approval Required

1.1.3.1 Initial Project Schedule: With proposal, submit a level 3 schedule covering activities for the duration of the Contract, starting with receipt of Notice to Proceed.

Activities included with the proposal schedule shall at a minimum include the following activities:

- Notice to Proceed – **November 6, 2019**
- Issue Work Plan for CHPRC Review
- Premobilization submittals
- Field crew training
- Field Mobilization – **January 6, 2020**
- Procure & Install Sanitary Sewer Lift Station
- Excavate & Install Sanitary sewer service – (Detail Tie in)
- Excavate & Install Potable Water Service – (Detail tie in)
- Install 6 wide Trailer @ Operations Admin Area

01315-1

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SECTION 01315
PROJECT SCHEDULES, PROJECT CONTROLS, AND PROJECT PERFORMANCE MILESTONES

- Install 2 wide restroom Shower trailer @ Operations Admin area
- Install 2 wide Trailer @ Waste Receiving Area
- Construct Treatment Pad
- Construct Storage Pad
- Procure Pallet inspection building
- Procure Transport Inspection Building
- Construct Pallet inspection Building Foundations
- Inspect Transport Inspection Building Foundations
- Erect Pallet Inspection Building
- Erect Transport Inspection Building
- Procure and install HVAC systems to inspection buildings
- Procure & install Lighting systems to inspection buildings
- Electrical Material Procurement
- Street & Area Lighting Procurement
- Install Electrical Distribution – Operations & Administration Area
- Install Electrical Distribution – Waste Receiving Area
- Install Street and Area Lighting
- Install Fence Grounding
- Fabricate & Deliver Leachate Loading Canopy’s
- Install Leachate Loading Canopy’s
- Perform Modifications to Leachate Loading Stations
- Excavate & Install Leachate Connecting Piping and Sump
- Submit SCADA system design
- Fabricate and supply SCADA System
- Install SCADA System
- Perform Electrical Outage and Facility Tie ins
- MO518 Removal (incl associated electrical distribution)
- Construction Acceptance Testing

01315-2

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PROJECT SCHEDULES, PROJECT CONTROLS, 
AND PROJECT PERFORMANCE MILESTONES

- Punch list completion
- Turnover
- Demobilization – July 21, 2020

1.1.3.2 Project Schedule: 10 days after Notice of Award, submit a level 4 schedule covering activities for duration of Contract.

1.1.3.3 Weekly Work Schedules: Provide a 2-week “look ahead” schedule, updated weekly, one day prior to each scheduled Weekly Progress Meeting.

1.1.3.4 Revised Schedules: When required, submit revised project schedules as specified in 1.3.

1.1.4 Approval Not Required

1.1.4.1 Progress Reports: One month after submittal of project schedule, and every 2 weeks thereafter, submit a progress report as specified in 1.5.

1.2 SCHEDULE PREPARATION

1.2.1 The schedule submittal shall include a time-phased performance measurement baseline schedule (PMBS) for completing the individual construction Work.

1.2.2 The schedule shall be in the form of a progress chart of suitable scale to indicate appropriately the percentage of work scheduled for completion by any given date during the contract period of performance. Identify critical path activities, including logical sequence and relationship of activities for engineering, design, submittals, procurement, fabrication, delivery, erection, installation, and testing for work covered by Contract.

1.2.3 See submittal register for copy type to be submitted and approval code.

1.3 SCHEDULE REVISIONS

1.3.1 Whenever CHPRC determines that there are significant variances between actual and scheduled progress, endangering completion of the Contract Work within the scheduled time, the Contractor may be required to prepare and submit revised project schedules including corrective action plan(s).

1.3.2 Make schedule revisions in accordance with the following:

1.3.2.1 Show progress to date of submittal and projected completion dates for each activity.

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PROJECT SCHEDULES, PROJECT CONTROLS, AND PROJECT PERFORMANCE MILESTONES

1.3.2.2 Identify activities modified since the previous submittal, major changes in scope, and other identifiable changes.

1.3.2.3 Provide a narrative report defining the problem areas, anticipated delays, and schedule impacts.

1.3.2.4 Describe corrective action taken, or proposed, and its effect, including changes in schedules of subcontractors.

1.3.3 Send copies of revised schedules to CHPRC. Notify subcontractors, suppliers, and other concerned entities, instructing them to promptly report, in writing, problems anticipated due to revisions.

1.3.4 Upon approval, a revised schedule becomes the new baseline.

1.4 WEEKLY WORK SCHEDULE PREPARATION

1.4.1 Each week, prepare a detailed schedule of next 2-week’s work. Base weekly work schedules on the activity schedule. Electronic generation of these schedules is not required. Include the following:
   a. Work Description
   b. Location of the Work.
   c. Work involving outages, overtime, weekends, etc.

1.5 PROGRESS REPORT PREPARATION

1.5.1 Prepare a summary progress report each reporting period, show actual progress versus scheduled progress. Scheduled progress is given by baseline project schedule. Show actual progress in the form of percentages completed for activities or resources.

1.5.2 A variance analysis shall be prepared on the current month and cumulative to date, and shall include cause, impact, and corrective action. Variance analysis shall include explanations, as required, to adequately address problems.

1.5.3 Develop and include a line graph (“S” curve) to show cumulative actual progress versus cumulative scheduled progress. Progress shown shall be consistent with that indicated by the reports.

1.5.4 Report funds expended as both dollar amounts and percentages of budgeted totals for each activity shown on schedule, listing amounts for labor, equipment, and materials separately.

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PROJECT SCHEDULES, PROJECT CONTROLS, AND PROJECT PERFORMANCE MILESTONES

1.5.5 Update project schedule each reporting period, or more frequently if requested by CHPRC, when progress report is prepared. Include an updated data disk and a hard copy of updated schedule with the progress report.

1.5.6 Progress of scheduled activities will be used to determine monthly progress payments made to the Contractor. Requests for progress payments shall be directly related to progress shown in relation to the approved baseline project schedule.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

END OF SECTION

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PART 1 – GENERAL

1.1 REFERENCES

1.1.1 The following documents and others referenced therein form part of Contract to extent designated in this section. Referenced documents are those current as of the date of this Section unless otherwise indicated.

1.1.1.1 American Society of Mechanical Engineers (ASME)

NQA-1: 2008 Quality Assurance Program Requirements for Nuclear Facility Applications. Include Requirements 1 through 18, subparts 2.7 and 2.14 as applicable for the scope of work being performed.

1.1.1.2 American Society for Quality (ASQ)

E4 Specifications and Guidelines for Quality Systems for Environmental Data Collection And Environmental Technology Programs

1.1.1.3 Code of Federal Regulations (CFR)

Title 10 Energy

Part 50 Domestic Licensing of Production and Utilization Facilities

Part 72 Licensing Requirements for the Independent Storage of Spent Nuclear Fuel and High-Level Radioactive Waste

Part 830, Subpart A Quality Assurance Requirements

Title 29 Labor

Part 1910 Safety and Health Regulations for General Industry

Part 1926 Safety and Health Regulations for Construction
1.1.1.4 Department of Energy (DOE)

Process Guide  Identification and Disposition of
  Suspect/Counterfeit items or Defective items
DOE-0359 Hanford Site Electrical Safety Program (HSESP)

1.1.1.5 Factory Mutual (FM)

Approval Guide

1.1.1.6 Institute of Electrical and Electronics Engineers (IEEE)

C2 National Electrical Safety Code (NESC)

1.1.1.7 International Standards Organization (ISO)

  Standards

1.1.1.8 Intertek Testing Services NA, Inc. (ITSNA)

ETL, Section 1 Electrical Products/Gas/Oil Fueled Products

1.1.1.9 National Electrical Manufacturers Association (NEMA)

MG-1 Motors and Generators

1.1.1.10 National Fire Protection Association (NFPA)

70-2017 National Electrical Code (NEC)

1.1.1.11 Underwriters Laboratories (UL)

Electrical Appliance and Utilization Equipment Directory

Electrical Construction Materials Directory

1.2 SUBMITTALS

1.2.1 See Section 01300 for submittal process.
1.2.2 Approval Required

1.2.2.1 With proposal, submit a Quality Assurance Program (QAP) meeting the requirements of the Contract and this Section. Include subcontracted work and work performed off of the Hanford Site. If QAP is based on a consensus national standard or other quality management system, furnish a matrix showing the cross-references between the QAP and the standard or system.

1.2.3 Approval Not Required

1.2.3.1 At project completion, submit a written statement warranting that all items supplied under Contract are genuine, new, and unused in accordance with 1.4.

1.3 QUALITY ASSURANCE PROGRAM REQUIREMENTS

1.3.1 The Quality Assurance Program (QAP) requirements imposed by this Specification are under the authority of the Price Anderson Amendments Act (PAAA) of 1989. Quality assurance provisions are developed from U.S. Department of Energy Nuclear Safety Management Regulation 10 CFR 830.120. QAPs developed from other national standards (e.g., ASME NQA-1, 10 CFR 50, 10 CFR 72, ISO 9000, ASQ E4) may be used as a basis for satisfying the criteria specified, and should be supplemented and submitted as necessary to satisfy the requirements.

1.3.2 The QAP shall apply to all activities, including subcontracted activities and for work performed off the Hanford Site. The QAP shall include provisions for the following:

1.3.2.1 Management: Program, training/qualification, discrepancy identification, document/records.

   a. Quality documents shall describe the organizational structure, functional responsibilities, levels of authority and interfaces for those managing and performing the Work.

   b. Personnel shall be trained and qualified to ensure they are capable of performing their assigned work. Plans shall address specific training, qualification, and certification requirements.

   c. Items and processes that do not meet the requirements shall be identified, controlled, and corrected. Identify items or materials that do not meet specified requirements and control them to prevent inadvertent use, shipment, or intermingling with acceptable materials or items.

   d. Documents shall be prepared, reviewed, approved, issued, revised and maintained. Approved and current issues of design documents, applicable
submittals, procedures, procurement documents and instructions shall be used. Records shall be legible, identifiable, and retrievable.

1.3.2.2 Performance: Work Processes, Design, Procurement, Inspection, and Testing

a. Items shall be identified and controlled to ensure proper use. Items shall be maintained to prevent their damage, lost or deterioration.

b. Design work, including changes, shall incorporated applicable requirements and design bases and be correctly translated into design outputs.

1. Design inputs and interfaces shall be identified and controlled.

2. Changes to the approved design shall be justified and subjected to measures commensurate with the original design.

3. For designs not previously proven, adequacy of design outputs shall be verified by individuals or groups other than those who performed the design. Minimum verification shall include a checking process.

c. Purchased items and services shall meet established requirements and perform as specified. Contractor shall be responsible for performing and documenting receipt inspection of any materials that are quality level 3 and above. Procurement controls shall include actions to prevent the use of suspect or counterfeit products (1.4).

d. Contractor shall be responsible for the performance of all inspection and testing activities as specified in the contract. Inspection and testing of specified items and processes shall be conducted using established acceptance and performance criteria.

1. Perform and document inspections and testing required by the Specification. Documented inspections shall report the true and physical/functional condition of the inspection activity. As a minimum prepare daily reports when inspections and testing are performed. Reports shall provide sufficient detail to describe inspections and testing performed, with applicable requirements referenced, and results and determinations of inspections and tests shown.

2. Test procedures, when required, shall include the reference test objectives, prerequisites, and acceptance criteria. Test procedures shall also identify test configuration, safety instructions, instrumentation requirements, required monitoring, and environmental conditions. Test procedures form
SECTION 01400
QUALITY ASSURANCE AND CONTROL

standards, codes, supplier manuals and equipment maintenance instructions may be used in lieu of specially prepared test procedures.

3. Complete required inspections and tests and have documentation available for review, before requesting overview inspection by CHPRC.

4. Measuring and Test Equipment (M&TE) shall be properly calibrated maintained, accounted for and used when required. Calibration shall be traceable to National Institutes of Standards and Technology Calibration (NIST) Standards. Perform calibration at specified intervals based on the type of equipment, required accuracy, and frequency of use, stability characteristics, and other conditions affecting performance. Maintain records and mark equipment to show calibration status.

5. When M&TE is found to be out of calibration, specify means to identify its use since the last calibration and methods to re-verify acceptability of items previously tested.

6. Calibration shall have accuracy traceable to national standards (where they exist), and calibration standards shall have the accuracy to ensure that the M&TE has the required tolerances.

1.3.3 Electrical/Electronic Product Acceptability

1.3.3.1 Electrical control panels and electrical equipment (a general term to include material, fittings, devices, appliances, luminaries [fixtures], apparatus, and the like used as part of or in connection with an electrical installation) delivered or brought onto the Hanford Site in performance of this Contract shall be listed or labeled by an organization currently recognized by OSHA as a nationally recognized testing laboratory (NRTL) in accordance with DOE-0359.

1.3.3.2 Electrical equipment installed as part of this contract shall comply with the NEC and, where applicable, the NESC. CHPRC reserves the right to inspect electrical equipment and installations. Contractor shall notify CHPRC when installations are available for NEC inspection.

1.3.3.3 Electric motors shall be manufactured and testing in accordance with NEMA MG-1 as applicable, or listed by an organization currently recognized by OSHA as an NRTL. Documentation of NEMA MG-1 compliance shall be made available to CHPRC on request.
SECTION 01400
QUALITY ASSURANCE AND CONTROL

1.4 EXCLUDING SUSPECT AND MISREPRESENTED PRODUCTS

1.4.1 Contractor warrants that items provided to CHPRC are genuine and unused unless otherwise specified in writing by CHPRC. Contractor further warrants that items used during the performance of the Work include genuine, original, and new components, or are otherwise suitable for the intended purpose. The Contractor indemnifies CHPRC, its agents, and third parties for any financial loss or property damage resulting directly or indirectly from material, components, or parts that are not genuine, original, and unused, or otherwise suitable for the intended purpose. This includes 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.

1.4.2 Types of material, parts, and components known to have been misrepresented include 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 Contractor’s warranty shall also extend to labels and trademarks or logos affixed, or designed to be affixed, to items supplied or delivered to CHPRC. In addition, because falsification of information or documentation may constitute criminal conduct, CHPRC may reject and retain such information or items, at no cost; and identify, segregate, and report such information or activities to the DOE.

1.4.3 Contractor shall submit a written statement that “all items furnished under this Contract are genuine (i.e., not counterfeit) and match the quality, test reports, markings, and fitness for use required by the Contract.” The statement shall be on Contractor letterhead and signed by an authorized agent of Contractor.

1.4.4 Any materials furnished as part of this Contract that have been previously found to be suspect/counterfeit by the DOE will not be accepted. For more information about suspect/counterfeit items, refer to Process Guide for the Identification and Disposition of S/CI or defective items at the following link: [http://www.hss.doe.gov/sesa/corporatesafety/sci/guide.html](http://www.hss.doe.gov/sesa/corporatesafety/sci/guide.html)

1.5 INSPECTION AND TESTING

1.5.1 Inspection, testing, and documentation addressed in this Statement of Work shall be performed by qualified Quality Control personnel who are independent of the work being performed. Quality Control personnel shall have been trained and qualified in accordance with the approved QAP.

1.5.2 Inspection and testing shall be performed in accordance with this Statement of Work.
SECTION 01400
QUALITY ASSURANCE AND CONTROL

1.5.3 CHPRC may perform oversight and inspections to verify compliance to requirements.

1.5.4 Verifications shall be performed for specific verification points as scheduled in the Inspection Plan.

1.5.5 Prerequisites to verification points: Ensure that personnel have completed inspections of, and approved portions of, work in accordance with the Specification requirements before notifying CHPRC.

1.5.6 Specific verification points are defined as follows:

- **QA Hold Point:** A type of signature step in a technical work document that satisfies established criteria for designation of Hold Points at which specific personnel are required to sign for the specified action. Hold Points consist of an action; acceptance criteria for Hold Point completion; and blocks for signature of performer, printed name of performer, and date.

  QA Hold Points are placed at those steps where omission or incorrect accomplishment of the step could result in a significant problem or hazard. The completion and documentation of a Hold Point must occur prior to proceeding to the next working step.

- **Verification Point:** A step in an inspection plan, procedure, or other work document that requires inspection personnel to review, inspect, test, check, or otherwise determine and document whether or not items, processes, services, or documents conform to specified requirements.

- **Witness Point:** A step in an inspection plan, procedure, or other work document that requires inspection personnel to observe an activity (e.g., examination or test).

**NOTE:** "Verification" may be performed after the fact; "witness" is performed during the work process.

- **Radiological Control Hold Point:** A hold point that is used when the potential exists in which incorrect implementation of radiological controls could exceed one or more of the following criteria:

  - Radiation exposures in excess of Administrative Control Levels
  - High airborne radioactivity concentrations without protection or controls
  - The uncontrolled release of radioactive contamination
1.6 DEFICIENCY REPORTING

1.6.1 Utilize a deficiency reporting system (e.g. nonconformance/deviation reports) to document deviations from requirements. Deficiency reports shall have a recommended disposition and shall be formally submitted to CHPRC within 48 hours of discovery.

1.6.2 Dispositions of deficiency reports shall be documented in one of the four following categories: Use-as-is; Reject; Repair; or Rework. Definitions for these categories may be found in ASME NQA-1.

1.6.2.1 Use-as-is and repair deficiencies shall by submitted for concurrence and approval. Reject and rework deficiencies shall be submitted for information. After the recommended disposition has been evaluated by CHPRC, the form will be returned to the Contractor with a disposition of “approved” or “rejected.” The Contractor shall take corrective action on the nonconformance only after the form is approved. The Contractor’s completed nonconformance form shall be shipped with the affected item.

1.6.2.2 Deficient items described by the report shall be physically tagged with a deficiency tag or segregated, when feasible.

1.6.2.3 Deficiency tagging shall remain intact during correction of deficient conditions, unless tagging inhibits directed corrective action. If removal of tag is necessary to accomplish directed corrective action, removal shall be performed or delegated by the initializing organization.

1.6.2.4 Clearance of deficiency tags shall be performed or delegated by the initializing organization.

1.6.2.5 Official punch-list and final work acceptance.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

END OF SECTION
SECTION 01500
CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

PART 1 – GENERAL

1.1 REFERENCES

1.1.1 The following documents and others referenced herein form part of Contract to extent designated in this section. Referenced documents are those current as of the date of this section unless otherwise indicated.

1.1.1.1 National Fire Protection Association (NFPA)

701 Methods of Fire Tests for Flame-Resistant Textiles and Films

1.1.1.2 Washington State Department of Transportation (WSDOT)

M 41-10 Road, Bridge, and Municipal Construction

1.2 ACCESS AND PARKING

1.2.1 CHPRC will make available parking for a limited number of Contractor’s company vehicles near the worksite, outside of any Limited Area. “No Parking” signs are posted to show fire and emergency lanes. No on-street parking will be permitted.

1.2.2 First Aid: Facilities for first line medical attention are available onsite and are located at the 2719WB building located in the 200 West Area of the Hanford Site. Facilities for radiological decontamination are also available onsite and are located at the 272AW building in the 200 East Area.

1.2.3 Operation and Storage Areas: Worksite operations, including storage of materials, shall be designated by CHPRC during the preconstruction conference.

1.3 FIELD OFFICE

1.3.1 The Owner will supply a 14x60 single wide trailer available for Contractor use during the onsite Construction period. The trailer has electrical power service but no telephone or computer network service. The Contractor shall provide furniture and appliances as it may require, and shall be responsible to provide necessary janitorial service.

1.4 TEMPORARY UTILITIES

1.4.1 Electric Power: Not available. Provide generator set for construction power. Perform CHPRC required checklists prior to starting/restarting generators.
1.4.2 Sanitary Facilities: Contractor shall supply and maintain its own restroom and sanitary facilities.

1.4.3 Telecommunications: Owner will not provide utilities for telephone and computer network service. Contractor shall provide cellular telephones for emergencies and communication with CHPRC, and shall provide wireless computer network access as it may require.

1.4.4 Water: Drinking water is not available. Contractor shall provide employees with adequate drinking water that meets health and safety requirements.

1.5 TEMPORARY CONTROLS

1.5.1 Dust Control: Maintain work areas to prevent hazard or nuisance to others. Accomplish dust control by sprinkling or other methods approved by CHPRC. Repeat sprinkling at necessary intervals to keep disturbed areas damp at all times. Keep sufficient equipment on worksite to accomplish dust control as work proceeds and whenever dust nuisance or hazard occurs. No separate or direct payment will be made for dust control and cost shall be considered incidental to and included in the Contract price.

1.5.2 Temporary Enclosures: Plastic sheeting materials used to form enclosures shall be 6 mils minimum thickness, and have fire retardant properties in accordance with NFPA 701 Test Method 2. Framing lumber shall have been treated with fire retardant.

1.5.3 Vehicle and equipment movement

a. Slow moving vehicles and equipment shall not travel on the Hanford Site roads during heavy traffic periods between 6:30 and 8:00 a.m., and 3:30 and 5:30 p.m.

b. Do not block existing roads.

c. Do not park on roadway shoulders.

d. Vehicles that require a portable fire extinguisher in accordance with PRC-PRO-SH-40078, Appendix F, shall have the extinguisher secured in an approved manner (vehicle mounting bracket designed for specific extinguisher, or stowed in a secured equipment container).

e. Washington State Highway Department that pilot/escort vehicles are necessary to protect the traveling public for slow moving loads. Additionally, WAC-38-100 (k)(4) states that anyone escorting a load as a “pilot/escort” must be trained and have a “certificate card” on their person stating they have been
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CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

trained. The escort vehicle should have at a minimum one flashing or rotating amber (yellow light) or strobe positioned above the roof line (WAS 468-38-100 (9)(a).

f. Movement of slow moving loads e.g. class 8 forklifts under its own power is allowed but limited to short distances (approx. 3 miles) during off peak traffic hours (e.g. after 0800 hours and before 1500 hours weekdays) with an escort vehicle trailing the slow moving load/class 8 forklifts. Movements over longer distances shall be done with low boy tractor/trailer, tilt equipment trailer or other suitable trailer with a load capacity that will safely and compliantly transport the slow moving load/class 8 forklifts over the public highways/roads.

1.5.4 Traffic Control: Temporary traffic control and barricades shall be in accordance with WSDOT M 41-10, Section 1-07.23(3).

1.5.5 Oversized vehicles and loads:

a. Obtain a Hanford Site Oversize/Overweight Permit from CHPRC before movement of oversize loads. See Section 01065. Verify route suitability and limitations before applying for the permit.

b. Display oversize load sign on the front of the towing vehicle and on the rear of the trailing unit. Attach red flags to each corner.

c. Travel between 8:30 a.m. and 2:30 p.m. unless special arrangements are made. Comply with escort vehicle requirements in the permit during travel.

d. Electrical escort requirements: CHPRC will provide qualified electrical escorts when loads reach a height of 12 feet or more from the road surface, or when a clearance of at least 6 feet cannot be maintained from overhead electrical or signal lines. Notify CHPRC at least three (3) working days before need. Contractor will not be charged for electrical escorts.

e. Personnel who will be using Commercial Motor Vehicles (CMV) on site which are required to be operated under a DOT license / Commercial Driver’s License (CDL) will require the contractor to meet all the Department of Transportation (DOT) Federal Motor Carrier Safety Regulations (FMCSR) in 49 CFR Parts 40, 382-383, parts 385 and 387 and parts 390-397.

1.5.6 Fuels and Lubricants:

a. Oils, greases and similar materials shall be stored in non-flammable bins or buildings or in a fenced compound remote from other combustible materials as
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CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

approved by CHPRC. Flammable and combustible liquids shall be stored and handling in accordance with Section 01130.

b. "No smoking" signs shall be provided by Contractor and prominently displayed in areas where flammable materials are stored. Additionally, Contractor shall provide and maintain suitable fire extinguisher in such areas.

c. Contractor shall provide all fuel for heating, ventilation and air conditioning of Temporary Facilities (unless these are run using free issue power).

PART 2 – PRODUCTS
Not Used

PART 3 – EXECUTION
Not Used

END OF SECTION
PART 1 – SUMMARY

1.1 SUMMARY

This section contains requirements for delivery, inspection, marking, storage, and handling. Product-unique requirements are contained in other sections. Chemicals shall be handled, stored, and tracked in accordance with Section 01130; flammable/combustible liquid storage shall be in accordance with Section 01130.

1.2 DELIVERY

1.2.1 Provide equipment and labor required for unloading, transporting, and handling delivered products. Notify CHPRC FWS for all deliveries to site. Work release and pre-job briefing is required prior to performing the above activities.

1.2.2 Safety Data Sheets (SDSs) shall be kept accessible at each jobsite where material is stored. See Section 01130.

1.3 RECEIVING INSPECTION

1.3.1 Arrange for immediate disposal and replacement of products found to be defective, damaged beyond repair, or in otherwise unacceptable condition.

1.3.2 Perform standard inspections and additional inspections required by this Statement of Work.

1.3.3 Dry and clean products that have become wet or have accumulated foreign substances during shipment, but have not become damaged.

1.3.4 Perform additional identification marking of products when necessary to meet requirements of this Statement of Work.

1.3.5 CHPRC may inspect products and product marking and storage methods for compliance with this Statement of Work.

1.4 PRODUCT IDENTIFICATION AND SEGREGATION

1.4.1 Provide identification tags or markings for products of similar appearance, or intended for similar use, procured to different specifications, or from different manufacturers. Safety Significant items shall be segregated from general services items, as well as stainless steel from carbon steel.
SECTION 01610
MATERIAL AND EQUIPMENT
DELIVERY, STORAGE, AND HANDLING

1.4.2 As applicable, include following information on tags: Manufacturer's name; product brand name; specification number; product type, grade and class; and other information required by other sections of this Statement of Work.

1.4.3 Segregate tagged or marked products and provide separate storage for each product.

1.4.4 Preserve identity of bulk and lot products during storage and in-process work.

1.4.5 Control identification and storage of welding materials in accordance with a written filler metal control procedure. Maintain procedure at jobsite. Procedure shall specify methods for control by heat or lot number during storage and in-process work and for disposal of contaminated and partially used material.

1.4.6 When pipe and tube is removed from storage and prior to cutting, clearly and permanently re-mark remaining pieces with either original markings or field code identification symbols. Return pipe and tube to storage after re-marking.

1.4.7 On pipe and tube, use permanent marking methods such as indelible ink, crayon, paint, and paint stick. Vibratory etching equipment may be used with approval of CHPRC. Marking with steel stamps is not acceptable.

1.5 STORAGE

1.5.1 Store packaged products in original, unbroken packages and containers. Leave seals and labels intact.

1.5.2 Store rolled products in upright position.

1.5.3 Store products with finished surfaces in manner that prevents surface damage.

1.5.4 If contact between products could result in damage or reduction of utility, store products far enough apart to prevent contact. If close proximity storage is necessary, provide a barrier between products. Care shall be taken to preclude carbon and halide contamination of stainless steel products.

1.5.5 Keep ports, nozzles, ends, and other openings on equipment, tanks, pipe, and tube capped or plugged during storage.

1.5.6 Follow manufacturer's storage recommendations.

1.5.7 Remove, dispose of, and replace products with expired shelf-life dates. Dispose of hazardous products in accordance with Section 01130.

01610-2

At CHPRC, Safety is no accident

IDF Infrastructure Upgrades 09/17/2019
SECTION 01610
MATERIAL AND EQUIPMENT
DELIVERY, STORAGE, AND HANDLING

1.6 INDOOR STORAGE

1.6.1 Provide indoor storage for products that can be damaged by, or can deteriorate from, changes in temperature and relative humidity.

1.6.2 When required by this Specification, or when recommended by product manufacturer, provide environmentally controlled storage. Maintain temperature 60 to 70°F, relative humidity below 55%, and provide ventilation.

1.7 OUTDOOR STORAGE

1.7.1 Avoid ground contact by providing skids, pallets, platforms, and other supports.

1.7.2 Provide sunshade protection for products that can be damaged by, or can deteriorate from, exposure to sunlight.

1.7.3 Provide weatherproof covers for products that can be damaged by, or can deteriorate from, contact with rain, snow, ice deposits, and blowing sand and debris. Piping materials shall be capped until installation.

1.7.4 Arrange stacked products so that condensation drains.

1.8 HANDLING

1.8.1 Provide handling tools and equipment, and use methods designed to prevent occurrence of following.

   a. Impact, rubbing, and other contact damage to ends and surfaces of pipe, tube, and other cylindrical products, and to edges, corners, and surfaces of panel, sheet and other flat products.

   b. Twisting, racking, and other distortion of prefabricated structures and equipment assemblies.

   c. Tearing, puncturing, and breaking of wrappings, coverings, and seals on packages and cartons.

   d. Surface contamination of stainless steel products.
PART 2 – PRODUCTS
Not Used

PART 3 – EXECUTION
Not Used

END OF SECTION
PART 1 – GENERAL

1.1 SUBMITTALS

1.1.1 See Section 01300 for submittal process.

1.1.2 Approval Required

1.1.2.1 Before starting Work or material delivery to the worksite, submit a completed Substitution Approval Request to CHPRC for each requested substitution.

1.1.3 Approval Not Required: None

1.2 CONDITIONS

1.2.1 Products include those identified in this Statement of Work, in the Specifications or other contract documents, and on the Drawings. References in the Specifications to products, or to patented or proprietary processes, by trade name, make, or catalog number, shall be regarded as establishing a standard of quality, and shall not be construed as limiting competition. The following conditions and limitations apply:

1.2.1.1 Substitution requires approval of a CHPRC Change Form (A-6004-820) if any of the following apply.

- Proposed substitute is more hazardous than the specified product.
- Product callout includes the phrase “or approved substitute.”

1.2.1.2 A substitute may be provided without approval if each of the following apply:

- Product callout does not include the phrase “or approved substitute.”
- Product is identified in this Statement of Work by trade name, make, or catalog number.
- Substitute is equivalent in function, maintainability, reliability, durability, material content, form, and size.

1.2.1.3 Substitution shall be applied to the total quantity of the product required in the Statement of Work. Partial quantity substitutions are not acceptable.

1.2.1.4 Approval of fabrication drawings and other design media does not constitute approval of substitute products identified within the media.

1.2.1.5 Submittals required for a specified item are also required for an approved substitute.
SECTION 01630
PRODUCT OPTIONS AND SUBSTITUTIONS

1.3 CHANGE FORM PREPARATION

1.3.1 Using the CHPRC Change Form, identify addressed product by the Statement of Work or Specification section and article or paragraph numbers or by the Drawing number. Provide manufacturer’s name and address, trade name, and model or catalog number. List fabricators as appropriate.

1.3.2 Attach descriptive information to define the operational and physical characteristics of the specified substitute product and to provide a basis for comparison. Include drawings, calculations, and data as appropriate.

1.3.3 Provide an itemized comparison between the proposed substitute and the original specified product. Include the following information:

1.3.3.1 Applicable Statement of Work or Specification section and article or paragraph numbers or applicable Drawing number.

1.3.3.2 Quality and performance comparison. List variations.

1.3.3.3 Cost data. Show the net Contract price change.

1.3.4 List the availability of maintenance service and replacement materials.

1.3.5 State the effect of the substitution on the schedule and identify the changes required in other work or products. Submit drawings, calculations, and vendor data to show the revisions necessary to accommodate the substitution.

PART 2 – PRODUCTS
Not Used

PART 3 – EXECUTION
Not Used

END OF SECTION

01630-2

At CHPRC, Safety is no accident
IDF Infrastructure Upgrades 09/17/2019
PART 1 – GENERAL

1.1 REFERENCES: Not Used

1.2 SUBMITTALS: Not Used

1.3 SUMMARY

1.3.1 This Section covers preparation of an Acceptance Test Plan (ATP).

1.3.2 An ATP is a step-by-step procedure for performing acceptance (functional) testing to demonstrate that a system operates in accordance with design requirements. It includes provisions for recording test results (test reporting). It does not cover final adjustments for operation.

1.3.3 CHPRC will prepare an CAT/ATP and deliver it to the Contractor for execution.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

END OF SECTION
PART 1 – GENERAL

1.1 SUMMARY

1.1.1 Hanford Site work requires that certain documents, defined herein, be used to record construction process and administration of the Contract. CHPRC will assemble pertinent data for final disposition.

1.1.2 Some data required for project records shall be delivered to CHPRC during the course of construction and contract administration, while other data shall be assembled after completion of construction for delivery to CHPRC.

1.1.3 Certain information for project records shall be recorded on CHPRC-provided forms. These forms are identified in Specifications sections where required. Copies will be supplied during the Preconstruction Conference (see Section 01200) and are also available on the CHPRC web site at the following link: https://chprc.hanford.gov/page.cfm/CHPRCSafetyReferenceDocuments.

1.1.4 Project Record Documents, required by Contract, shall be prepared, preserved and delivered to CHPRC. These deliverable documents are in addition to submittals required by Section 01300.

1.2 PROCEDURE

1.2.1 Identification and Marking: Mark documents that will become project records before use for construction. Upon completion, identify documents by title or number.

1.2.1.1 Notes or markings added by hand shall be legible, utilizing permanent non-smearing marking media, such as ink or felt tip markers, in contrasting color.

1.2.1.2 Mark items to record actual construction, including changes to dimensions and details, manufacturer’s name, catalog number and substitute products.

1.2.2 Availability: Keep copies of Project Record Documents at the Project site, and make available to CHPRC during the progress of the Work.

1.2.3 Storage: Store one (1) set at the Project site, apart from documents used in construction and maintain in a clean dry and legible condition.

1.2.4 Delivery: Record delivery of documents by retaining copies of letters of transmittal itemizing delivered items and reports delivered during the course of the Work. Retain until construction completion. An alternate means, acceptable to CHPRC, may be used.
1.3 ACTIVITY AND ADMINISTRATIVE DOCUMENTS

1.3.1 Deliver or retain in accordance with the following:

1.3.1.1 Certified Payrolls: Deliver certified payrolls as required by the Contract Provisions to CHPRC. Progress payments will not be processed unless certified payrolls for work periods have been received by CHPRC. The process of reporting certified payrolls has been streamlined using an integrated electronic Certified Payroll submittal system, LCPtracker. LCPtracker eliminates the need for manual submittals and is capable of supporting integration from multiple payroll systems. All Certified Payrolls, including lower tier subcontractors, shall be submitted by entry into LCPtracker. Information can be found on LCPtracker’s website: LCPtracker.com

1.3.1.2 Cumulative Hours: Each month, report the total cumulative hours worked for each Contract/Release. Report to include any subcontractor or vendor employees, including temporary or part-time workers, who have been compensated for specific work. Deliver report as early in the month as practical and deliver the same time each month.

1.3.1.3 The Contractor shall complete Construction Daily Activities Field Reports (A-6004-822, Rev 3) and Lost Time/Work Delay Notification (A-6006-539 Rev.1) if applicable. The Contractor shall provide CHPRC with a Construction Daily Activities Field Report identifying detailed work activities performed for the day: craft by name/hours worked and company, Supervision, by name/hours worked and company, any detailed problems/issues/delays, vehicles/equipment used, detailed work activities planned for the next day, Safety observations, Lost Time/Work Delay Block #14, etc. Construction Daily Activities Field Reports shall be submitted by Work Package to CHPRC by 10:00 a.m. each work day documenting the previous work day’s activities. DAR’s will be filled out until the project is completed or terminated. A DAR shall be submitted on days (normal work days) where no work has been done.

1.3.1.4 Contractor will be required to complete the Mobile Equipment Daily Pre-Use Inspection Checklist A-6006-914

1.3.1.5 Contractor will be required to complete the Mobile Equipment Work Site Pre-Use Checklist A-6006-916

1.3.1.6 Contractor will be required to comply with the following PTS Project delivery Expectation Letters (refer to attachment C)

- PTS-PD-19-01 – Compensatory Actions for Conduct of Operations Events
- PTS-PD-19-02 – Compensatory Actions for Lockout/Tag out Events
SECTION 01720
PROJECT RECORD DOCUMENTS

- PTS-PD-19-06 – Vehicle Safety & Security
- PTS-PD-19-08 – Medical Emergency Procedures
- CHPRC-1601003 - Expectations During Abnormal & Upset Conditions

1.3.1.7 Weekly Manpower Reports: Prepare weekly manpower reports and deliver to CHPRC before 10 a.m. on Monday, for the previous week, during the performance of the Contract.

1.3.1.8 Subcontracting Plan Reports: Deliver reports to CHPRC documenting conformance with the approved Subcontracting Plan, as required by SP-11.

1.3.1.9 Pre-Job Briefing Checklist: Prepare checklist during each pre-job briefing and post-job review. Deliver checklists to CHPRC within 5 days after briefing.

1.3.1.10 Pour Slips: After obtaining CHPRC approval of Concrete Pour Slips, deliver copies to CHPRC and retain Contractor copies until Contract closeout. After closeout, deliver to CHPRC.

1.3.1.11 Trip Tickets: Deliver copies to CHPRC with each truck load of concrete and retain Contractor copies until Contract closeout. After closeout, deliver to CHPRC.

1.4 CONSTRUCTION, QUALITY ASSURANCE AND SUPPORTING DOCUMENTS

1.4.1 Deliver in accordance with the following, when called for in the Specification Sections:

1.4.1.1 Significant Discharge Log: Log water discharged each work day and deliver discharge log (A-6002-294) to CHPRC.

1.4.1.2 Flushing Records: Deliver to CHPRC one copy of records verifying acceptable completion of flushing, before testing.

1.4.1.3 Leak/Pressure Testing Records: Deliver to CHPRC one copy of records verifying acceptable completion of leak and pressure testing, within five days after completion.

1.4.1.4 Calibration Records: Deliver to CHPRC one copy of instrument calibration records five days after Contract completion.

1.5 PRODUCT SAMPLES AND MANUFACTURER’S INSTRUCTIONS

1.5.1 In addition to the submittals required in Section 01300, and the requirements of this Section, information received by Contractor (from suppliers) that document products used and how they were installed shall be delivered to CHPRC as Project Records.
PART 2 – PRODUCTS
Not Used

PART 3 – EXECUTION
Not Used

END OF SECTION
Eleven (11) offices around the perimeter
  - Two (2) 120V duplex receptacles in each office
  - Two (2) pair of Cat 5e Ethernet drops in each office

One (1) conference room
  - One conference room with four (4) duplex receptacles
  - Two (2) pairs of Cat 5e Ethernet drops in conference room

One (1) area for a copy machine and printers with:
  - One (1) dedicated 120V circuit and receptacle
  - Two (2) duplex receptacles sharing one (1) dedicated 20 amp circuit
  - One (1) pair of Cat 5e Ethernet network drops
ATTACHMENT A
MODULAR UNIT FLOOR PLANS

Twenty eight (28) Cat 5e Ethernet cables from network switchboard location through the ceiling to be routed through four center post raceways (to be installed with cubicles).
- Nine (9) runs will be staged for the North cluster of five (5) cubicles
- Eight (8) runs will be staged for the North cluster of four (4) cubicles
- Eight (8) runs will be staged at center for the South row of four (4) cubicles

Kitchenette (stove vent fitted)
- 240V receptacle for a range
- Stove vent hood.
- 3 additional duplex receptacles for appliances
- 5 dedicated 20A (or greater) circuits with one (2) GFIC duplex receptacle.
4-wide office trailer floor plan

Four (4) offices around the perimeter (2 on each end)
- Two (2) 120V duplex receptacles in each office
- Two (2) pair of Cat 5e Ethernet drops in each office

Kitchenette (stove vent fitted)
- 240V receptacle for a range
- Stove vent hood.
- 3 additional duplex receptacles for appliances
- 5 dedicated 20A (or greater) circuits with one (2) GFIC duplex receptacle.

Copy machine and printer area:
- One (1) dedicated 30 amp 120V circuit and receptacle
- Two (2) duplex receptacles sharing one (1) dedicated 20 amp circuit
- One (1) pair of Cat 5e Ethernet network drops

Four duplex receptacles and four (4) pairs of Cat 5e Ethernet network drops on the exterior mobile office wall for future workstation locations.
Restroom/Shower Trailer Floor Plan
ATTACHMENT C
EXPECTATION LETTERS

PTS Project Delivery Expectations Letter
PTS-PD-19-01 – Compensatory Actions for Conduct of Operations Events

To: PTS Directors, Program Managers, Project Managers, Responsible Managers, Construction Managers, Field Work Supervisors and Work Control Planners

From: Mike Jennings, Director PTS Project Delivery

1. Effective Date: Immediately

2. Duration: Determined by PTS Senior Management.

3. Subject: Compensatory Actions for Conduct of Operations Events

4. Reason for expectation
CHPRC and PTS have experienced a number of conduct of operations events related to material/equipment handling, inadequate system breaches and poor work practices that revealed a vulnerability associated with the indoctrination of new workers and subcontractors to CHPRC’s processes, and adhere to PTS Senior Management’s expectations for the execution of Davis-Bacon Determined work.

5. Expectations Actions
The following conduct of operations compensatory measures are to be implemented:

1. PTS will utilize the Construction Contracior Worker - Craft Safety Orientation, A-6006-763, at which construction safety practices, conduct of operations practices, reporting requirements and the deliberate speed video are covered.

2. PTS will institute the PTS Senior Management requirement that prior to breaching an unlabeled system, the system shall be field verified with Facility Operations and temporarily marked or tagged by the Subcontractor performing the work. In addition, an independent PTS Construction Manager (or designee) will field verify and document the correctness of the temporarily marked or tagged system prior to the system being breached by the subcontractor. This independent field walk down and verification will be documented via a work record entry in the associated work package(s).

3. PTS will institute Senior Supervisor Watches (SSWs) for high-risk (as defined in PRC-PRO-CN-52909) material/equipment handling activities. For non-high risk material handling activities, PTS will utilize CHPRC field supervision as oversight. The high-risk determination will be at the discretion of the PTS Project Delivery Director. The SSWs will be identified on the Plan of the Day and Plan of the Week schedules. The SSW oversight shall be documented via a work record entry in the associated work package(s).

This expectation serves to institutionalize the actions listed above. PTS Senior Management requires that this be implemented in the execution of Davis-Bacon Determined work, which involves the stated actions until further notice.

Project Delivery Director: __________________________ Date: 1/7/19
Mike Jennings

Canceled: __________________________ Date: __________

IDF Infrastructure Upgrades
PTS Project Delivery Expectations Letter
PTS-PD-19-02 – Compensatory Actions for Lockout/Tagout Events

To: PTS Directors, Program Managers, Project Managers, Responsible Managers, Construction Managers, Field Work Supervisors and Work Control Planners

From: Mike Jennings, Director PTS Project Delivery

1. Effective Date: Immediately

2. Duration: Determined by PTS Senior Management.

3. Subject: Compensatory Actions for Lockout/Tagout (LO/TO) Events

4. Reason for expectation
CHPRC has experienced LO/TO events that revealed a vulnerability associated with a misinterpretation and understanding of portions of Hanford Site Lockout/Tagout Procedure, DOE-0336.

5. Expectations Actions
All PTS construction activities that involve LO/TO are to be conducted as follows:

1. A current copy of DOE-0336 will be open and followed step-by-step during the application of a LO/TO as defined in DOE-0336. *(Ref PRC-STD-OP-54266 Hazardous Energy Control step 2.1.3)*

2. An up-to-date copy of the applicable Tagout Authorization Form (TAF) will be provided by the Controlling Organization Administrator (COA) or Field Work Supervisor (FWS) to the Authorized Workers (AWs).

3. If an AW is unable to verify the contents of the lockbox (i.e., keys, or equivalent protection indicators) or that the component is in the required position as identified on the TAF or Eight Criteria Checklist, the AW shall communicate immediately with the PTS FWS and COA for resolution prior to commencing work.

This expectation serves to institutionalize the actions listed above. PTS-Senior Management requires that this be implemented in the execution of Davis-Bacon Determined work which involves LO/TO activities until further notice.

Project Delivery Director: ____________________________ Date: 1/9/19

Signed: Mike Jennings

Canceled: ____________________________ Date: __________
PTS Project Delivery Expectations Letter
PTS-PTS-19-06- Vehicle Safety and Security

To: PTS Directors, Program Managers, Project Managers, Responsible Managers, Construction Managers, Field Work Supervisors and Work Control Planners

From: Mike Jennings, PTS Deputy Vice President

1. **Effective Date:** Immediately

2. **Duration:** Determined by PTS Senior Management.

3. **Subject:** Vehicle Safety and Security

4. **Reason for expectation**

The Project Technical Services (PTS) team utilizes vehicles on a daily basis to perform our work. As a group and individually we are required to operate our vehicles in compliance with procedures and state law. The items below are key elements in ensuring that our vehicles are operated safely and the vehicles are secured from misuse.

5. **Expectations Actions**

Both PTS personnel and our subcontractors must adhere to the following items. The bulleted items are addressed in the CHPRC Vehicle Policy, PRC-POL-SH-54212 and the endorsed procedure Government Vehicle and Fleet Equipment Operation, Additions and Modification, MSC-PRO-TRANS-483.

1. All drivers shall follow all applicable state motor vehicle laws and regulations
2. Drivers will have a valid driver’s license on their person when operating a vehicle
3. All drivers and passengers will obey the law regarding mandatory seat belt use—no matter the distance to be travelled
4. Perform a 360-degree inspection of the vehicle and surrounding area
5. Immediately report any vehicle incidents, discovered damage or deficiency
6. Set the parking brake, place automatic transmission in Park, and keep the vehicle in the line of sight when leaving the vehicle engine running.
7. Manual transmission vehicles must have a driver in the seat or wheel chocks in place if a vehicle is running, unless a written deviation is approved in advance by PTS Safety.
8. Set parking brake, vehicle in park (or in gear if manual), remove and secure the keys, and lock the doors prior to leaving the vehicle unattended
9. Utilize a trained spotter as required when required
10. Use spotting assistance from a coworker/passenger when in congested area
11. Stay on established roads at all times unless specifically authorized to be off-road

The following is the definition of attended:

The vehicle is under constant supervision, which may occur from with the vehicle, or within the vicinity of the vehicle. Examples of within the vicinity include next to the vehicle or in an adjacent vehicle or building within clear eye sight of the attended vehicle. For the purposes of warming up the...
vehicle during cold weather conditions, one individual may supervise, or attend, multiple vehicles within close proximity of each other.

Use of Chocks

PTS is requiring the use of chocks if the vehicle will be used as a warming vehicle or other designated job required where personnel will be getting in and out of the vehicle while it is running but will not be going through the normal startup process of: seat belt is put on, vehicle started, remove parking brake, place into gear.

The use of chocks at all times is a best management practice. If chocks are used at any time they must be used correctly. The chock must be placed securely in front of/or behind the wheels.

The use of chocks is to prevent movement of the vehicle should it accidentally be placed into gear.

If there are any questions please feel free to ask your manager, Pam Aardal or myself.

Reference: CHPRC Vehicle Policy, PRC-POL-SH-54212

PTS Deputy Vice President: [Signature] Date: 1/31/19

Canceled: [Signature] Date: [Signature]
PTS Expectations Letter
PTS-PD-19-08 – Medical Emergency Procedures

To: PTS Directors, Program Managers, Project Managers, Responsible Managers, Construction Managers, Field Work Supervisors and Work Control Planners

From: Mike Jennings, Deputy Vice President

1. Effective Date: Immediately

2. Duration: Determined by the Director PTS Project Delivery

3. Subject: Medical Emergency Procedures

4. Reason for expectation: The Project Delivery Team works in multiple buildings and performs work throughout the site. The need to reinforce expectations on when it is appropriate to take an employee to HPMC for first aid and when 911 should be called.

Expectations Actions:
The following types of events are acceptable to take an employee to HPMC in a government (preferred) or personal vehicle:
- Bug bites/sting. No history of allergic reaction.
- Small laceration or bruise on extremity
- Other minor injury in which it is known that the severity is minor

The following type of event should always have a call placed to 911:
- Individual is complaining of chest tightness or difficulty breathing
- Individual is experiencing symptoms that may indicate heart issues or a stroke.
- Individual is bleeding profusely
- Individual may have a potential head injury
- Have been bitten or stung and have a known allergic reaction to the bite/sting

If you are unsure whether or not 911 should called, call 911. The Hanford Fire Department will be able to evaluate the employee and can recommend if they should receive additional treatment at the hospital.
- When at all possible have the employee be located in a hard wall office or cubicle to allow for privacy. Personnel not involved with the response should stand back and give the employee space.
- Keep employee comfortable, seated (or lying down) and calm.
- Use the first aid training, First Aid Kit and AED until the Hanford Fire Department medics arrive and assume control.
- Have someone go out to flag for Hanford Fire Department (wearing high visibility PPE)

Deputy Vice President: ________________________________ Date: 6/15/19

Mike Jennings

Canceled: ________________________________ Date: __________________________

IDF Infrastructure Upgrades
INTEROFFICE MEMORANDUM

Date: February 24, 2016
To: Distribution
From: M. A. Wright, Vice President, Project Technical Services
Subject: Expectations During Abnormal and Upset Conditions

Recent responses by field crews and subcontractors to abnormal and upset conditions during field work activities have revealed an emerging weakness in understanding two fundamental CONOPs principles which, if not adhered to, have the potential to lead to more serious conditions/events, potentially putting personnel and workers at unnecessary risk.

We have repeatedly discussed these fundamentals in multiple forums since the inception of PTS three years ago (PTS Field Work Supervisors qualifications, Hazard Review Boards, critiques involving response by PTS and its subcontractors, etc). We have, on occasion, suspended qualifications of our supervisors when they fail to demonstrate them during actual upset conditions, until they can clearly demonstrate an understanding of these principles.

It is essential that our supervisors (PM, CM, SSWs and FWSs) and subcontractor supervisors (CM, Superintendents, Foreman, FWSs and Lead Workers) know and understand the two fundamental CONOPs principles. To that end, I want to reiterate the two fundamental CONOPs principles so that there is no ambiguity or misunderstanding of what my expectations are in regards to your supervisory responsibilities during upset and abnormal conditions and responses.

1. **Putting your people in a safe condition takes priority over putting the plant in a safe condition.** Do not direct your people or allow them to take additional work steps or actions which have the potential to expose them to or extend their exposure to a hazard or hazardous condition. Your team's safety is your top priority. Attempting repairs, altering system lineups, picking up dropped materials, troubleshooting equipment, and investigating can wait until you have verified your team's safety, notified the Facility Owner (Release Authority/Ops Authorized/BED as applicable) of the abnormality/upset and have made notifications to your management. Simply put…. If you didn’t plan it, pre-job it and get it authorized – you don’t get to do it.

2. **Do not surrender to the overwhelming thirst for information.** When an abnormal event or upset condition occurs, notifications will have to occur. Accompanying those notifications will be numerous questions about who, what, why and where. It is easy to become bombarded with questions to the point you may feel the need to go back into an activity or event scene to get the answers. Don’t!
Do not re-enter an unanalyzed and unauthorized activity/area to gather more information or take any additional actions. Sending a member(s) of your team back into an event scene without planning is an unsafe act. Equally, do not let others who are curious re-enter your area. The Facility Owners and Emergency Responders have the training, procedures and emergency protocols for responses, it is not part of our charter.

Additionally, many of you are experienced at understanding what questions are going to be asked and what answers are going to be needed. Do not delay putting your team in a safe condition to obtain those answers. A simple “I don’t know” will suffice until we take the time to scope, analyze, and plan the recovery.

There should not be a work activity performed by PTS or one of its subcontractors (including sub-tiers) where the person in control at the location of the activity is not familiar with these expectations. Knowing what actions to take in regards to safeguarding the workers during upset and abnormal conditions should be instilled in each of us as supervisors. It is out of trust and obligation that we safeguard our workers for themselves, their family and friends.

As I have in the past, you can expect me to periodically ask you about these expectations. I expect you to be able to tell me the two underlined expectations above. Additionally, many of you have multiple jobs/locations you are supervising. If you are not directly overseeing the work activity, then the subcontractor supervisor, foreman or lead worker should know and understand them. If they don’t, you should be there attending the work.

If you have questions on either or both of the expectations please take the opportunity to meet with me.

Mark Wright  
Vice President, Project Technical Services  
CHPFC

maw/lko

To:  Manuel Aguirre  
David Anderson  
Ralph Arousell  
Brad Barton  
Ronald Bowden  
Paul Branson  
Travis Creach  
Rex Flaucher  
Rick Garcia  
Brian Hannah  
George Hashbrouck  
Andre Labonty  
Tony Mosca  
Pat Mullaly  
Tom Nemzek  
Harvey Palomarez  
Brian Rebberg  
Jeff Serl  
Rick Wiseman

IDF Infrastructure Upgrades
ATTACHMENT C
EXPECTATION LETTERS

cc: CHPRC Correspondence Control
Steve Basehore
Ben Chavez
Steve Crow
Randy Ferguson
Jhivaun Freeman-Pollard

Paul Gaumnitz
Bob Gillette
Jim Hoffman
Mike Ostrom

Tim Oten
Kevin Russell
Bob Skamser

IDF Infrastructure Upgrades
# ATTACHMENT D
## MASTER SUBMITTAL REGISTER

<table>
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<th>No.</th>
<th>Type</th>
<th>Technical Submittal</th>
<th>Vendor Information</th>
<th>Description / Document Title</th>
<th>Submittal Date (Calendar Days)</th>
<th>Approver / Organization</th>
<th>CHPRC Review Time</th>
<th>Contract Paragraph or Requirement Reference</th>
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<td>N</td>
<td>Execution Work Plan</td>
<td>A+5</td>
<td>BTR/Eng</td>
<td>1 week</td>
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**IDF Infrastructure Upgrades**
# ATTACHMENT D
## MASTER SUBMITTAL REGISTER

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IDF Infrastructure Upgrades
# ATTACHMENT D
## MASTER SUBMITTAL REGISTER

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(Submit technical substitutions under the individual technical submittal section)

### Technical Submittals - Construction Specification CHPRC-03953

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<td>Schedule of Selective Demolition Activities</td>
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 Applies to sections 03 30 00 Cast –In-Place Concrete; Section 03 30 55 Miscellaneous Cast In Place Concrete, Section 32 13 13 Concrete Paving

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### IDF Infrastructure Upgrades
### ATTACHMENT D
### MASTER SUBMITTAL REGISTER

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<td>Floor surface flatness and levelness measurements report, indicating compliance with specified tolerances.</td>
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<td>Minutes of preinstallation conference</td>
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Applies to Sections 05 12 00 Structural Steel Framing; 054000 - Cold Formed Metal Framing; 055013 - Miscellaneous Metal Fabrications; 05 51 19 Metal Grating Stairs

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IDF Infrastructure Upgrades
## ATTACHMENT D
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**IDF Infrastructure Upgrades**
## ATTACHMENT D
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**ATTACHMENT D**

**MASTER SUBMITTAL REGISTER**

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26 05 53 Identification for Electrical Systems

26 08 00 Commissioning of Electrical Systems

26 09 23 Lighting Control devices

IDF Infrastructure Upgrades
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**IDF Infrastructure Upgrades**
## ATTACHMENT D
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**Technical Submittals - IDF SCADA Technical Specification CHPRC-03962**

**IDF Infrastructure Upgrades**
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ATTACHMENT D
MASTER SUBMITTAL REGISTER

1. Typically a numerical sequence (i.e., 1, 2, 3.). However, other numbering systems may also be used.

2. Submittal type, number of copies and format:
   - APW = Approval Required Prior to Work (CHPRC must approve the Contractor’s submittal prior to the Contractor being authorized to proceed with any activity/work associated with the submittal).
   - AP = Approval Required (CHPRC must approve the Contractor’s submittal, however, work associated with the submittal may proceed prior to CHPRC approval).
   - Format: Describes the type of submittal required (electronic or printed):
     - DWG = An AutoCAD drawing using the Hanford standard formatting (See CHPRC-00263, Off-Site Vendor Instructions for the Preparation and Control of Engineering Drawing).
     - MFC = Microsoft Format Compatible application (Word, Excel, Access, PowerPoint)
     - FIO = For Information Only
     - P6 = A Primavera Project Planner schedule
     - GEN = General or Open Format/Media
     - PDF = Adobe Acrobat (Portable Document Format)

3. Technical submittals are Engineering or Quality affecting submittals. A Yes in this column designates the need for formalized comments, and a formalized comment disposition process by the Contractor. Examples of Technical Submittals would include Engineering or Fabrication Drawings, or Certificates of Conformance.

4. Vendor Information for project record purposes.

5. Description / Document Title. Describe submittal.

6. Required submittal date or its relationship to project milestones. Examples are July 14, 2009, or Award + 15 days, Contract Completion +30 days.
   - A = Date of Award
   - CD = Conceptual Design Complete
   - PD = Preliminary Design Complete
   - FD = Final Design Complete
   - M = Mobilization
   - SC = Start of Construction
   - EC = End of Construction


8. The number of Work Days required for review of the submittal.
   - Contract Reference: Cross reference to the Contract requirement that defines this submittal.