



Area 45 Substation Replacement and Switchyard Upgrades

PART 2A - General and Administrative Requirements

(Final – 29 Dec 2016)

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SECTION 01100

DEFINITIONS

As used throughout the contract, the following terms shall have the meaning set forth below:

Contracting Officer (KO): The individual designated to administer the contract. Throughout this contract, this individual will be responsible and possess the authority to act on behalf of the Government with respect to the specific contract.

Contracting Officer Representative (COR): The individual designated by the Contracting Officer as the authorized representative of the Contracting Officer. The COR is responsible for monitoring performance and technical management of the effort required and should be contacted regarding questions or problems of a technical nature.

Contractor: The term Contractor refers to both the prime Contractor and subcontractors.

Quality Control (QC): Contractor's system to control the quality of material, equipment, and construction.

Quality Assurance (QA) Program: Government's program to evaluate the effectiveness of the Contractor's quality control. The Government's QA Program is not a substitute for the Contractor's QC Program.

Federal Holidays: New Year's Day, Martin Luther King Jr. Day, President's Day, Memorial Day, Independence Day; Labor Day, Columbus Day, Veterans Day, Thanksgiving Day, and Christmas Day.

Contract: Contract or task order.

-- End of Section --

SECTION 01101

ORDER OF PRECEDENCE

NFAS Clause 5252.236-9312. In the event of conflict or inconsistency between any of the below described portions of the conformed contract, precedence shall be given in the following order:

1. Any portions of the proposal that exceed the requirements of the solicitation.
 - a. Proposal items that exceed the final design.
 - b. Where portions within either the proposal or the final design conflict, the portion that most exceeds the requirements of the solicitation as determined by the Contracting Officer has precedence.
2. The requirements of the solicitation, in descending order of precedence:
 - a. Standard Form 1442, Price Schedule, and Davis Bacon wage rates.
 - b. Contract Clauses.
 - c. General and Administrative Requirements.
 - d. 01333 - Submittal Requirements.
 - e. 01110 – Statement of Work/Project Program Requirements.
 - f. Supporting Documents
 - g. Specifications.

-- End of Section --

SECTION 01102

POST AWARD MEETINGS

Within 21 calendar days of award, meet with representatives of the Contracting Officer, installation, and client.

1. The project team will develop a mutual understanding relative to the approved proposal, safety program, environmental permits and requirements, quality control procedures, and construction schedule. During the meeting, Contractor shall propose and gain acceptance for any critical path work activities requiring advance submittal and approval.
2. The Contractor's key personnel shall attend at the expense of the Contractor. Key personnel are defined as the Project Manager, Superintendent, CQC representative(s), major subcontractors and specialized supplementary personnel.
3. The PAK includes partnering, held during normal work hours with the non-labor –related costs shared by both parties. Partnering is a structured process, as well as philosophy of doing business with Contractors and clients that recognizes common goals through communication and teamwork. It helps create an environment where trust and teamwork prevent disputes, foster good working relationships to everyone's benefit, and facilitate the completion of a successful contract. A Performance Assessment Plan (PAP) that provides monthly performance feedback to the Contractor will be discussed during the partnering session.
4. Key personnel will meet to identify strategies to ensure the project is carried to expeditious closure and turnover to the Client.
 - a. Start the turnover process at the PAK Meeting utilizing the NAVFAC Red Zone (NRZ) Checklist and convene the Facility Turnover Meetings once the project has reached approximately 80% completion or 2 months prior to Beneficial Occupancy Date (BOD), whichever comes first.
 - b. The Contracting Officer's Representative will lead the meetings and guide the discussions based on an agenda provided by the Government. The Facility Turnover effort shall fill in the NRZ Checklist including Contractor, Client, and NAVFAC Checklist Items and assign a person to be responsible for each item and a due date.
 - c. The Contracting Officer's Representative will facilitate the assignment of responsibilities and fill out the NRZ Checklist. The Contracting Officer's Representative shall develop a Plan of Action and Milestones (POAM) for the completion of all Contractor, Client, and NAVFAC Checklist items.

-- End of Section --

SECTION 01110

SUMMARY OF WORK

1. Description

A. Replace Area 45 Transformers

Remove the existing 2.5MVA transformer banks (2), voltage regulators, and associated buswork and replace with new transformers. Also conduct concrete repairs on the existing tower footings in area 45.

The work includes in part, items such as: demolition, transformer foundations, concrete repairs and electrical and control wiring. Refer to other portions of the contract for full requirements.

Perform both pre and post construction detailed analysis as well as updating electrical distribution modeling for proposed design and consolidation of existing CAD drawings into one master set. See Parts 2B and 3 for specific requirements.

B. Basic Work Elements:

CLIN 0001 – Base Bid

The existing transformers will be replaced with two new 4 MVA transformers built to withstand the electrical transient voltages and amperages caused by the operation of the radio transmitter and designed to limit harmonics as stated in IEEE Standard 519-2014. The voltage regulation will be accomplished using on-tap load changers mounted directly to the transformers. Existing 4,160 volt buswork will be removed and replaced with underground ducts and cabling. Existing 115kV will be extended or revised to accommodate new transformers. This CLIN includes all Part 2B work.

CLIN 0002 – Tower Footing Repairs

Repair 17 existing concrete tower footings. Damage ranges from minor concrete spalls to a partial section of the footings being completely missing or damaged. The rehabilitation of the damaged footings will involve removing spalled or loose concrete, cleaning the exposed surface, applying a bonding agent to the surface, and placing epoxy mortar.

2. Location

Area 45
Naval Radio Station Jim Creek
21027 Jim Creek Road
Arlington, WA 98223-8599

-- End of Section --

SECTION 01140

WORK RESTRICTIONS

1. Work Access and Passes: Access to the work site requires NCACS and BAVRs badges for all individuals. All Contractor employees, including subcontractors, and subcontractors' employees, suppliers, and suppliers' employees shall be required to comply with the Installation Security Requirements regarding personnel, vehicle, and equipment security passes and access the jobsite. Nothing in the contract shall be construed in any way to limit the authority of the Commanding Officer to prescribe new, or to enforce existing security regulations governing the admission or exclusion of persons and the conduct of persons while aboard the station, including but not limited to, the rights of search of all persons or vehicles aboard the station.
 - a. Base Access:
 - b. Prime contractor, subcontractor, supplier, delivery, and any other contract associated individual that requires access to visit and / or work at Naval Station Everett, Navy Support Complex Smokey Point, or Naval Radio Station Jim Creek shall utilize one of the following options below to obtain base access:
 - 1) **Base Access - One-Day Pass:**
 - a) One-day passes are intended for single events such as Pre-bid Site Visits where base access is needed for the day of issuance only. Consecutive daily access requires the issuance of a NCACS badge.
 - b) Send a request via email to the Base Access Sponsor identified herein a minimum of three days prior to date of access. Include a completed Single Day Pass Form, refer to attached Document C2, for each individual requesting access.
 - c) Passes are issued at the Base Pass and Identification Office. Furnish proof of identification, vehicle registration and proof of insurance. Acceptable forms of identification are listed on EMPLOYMENT ELIGIBILITY VERIFICATION (DHS FORM I-9). Base Access Sponsor must be present for issuance of pass.
 - d) The Government will not be responsible for any cost or lost time associated with obtaining daily passes or added vehicle inspections incurred by non-participants in the NCACS. Vehicle inspections may occur for each pass issued.
 - 2) **Base Access - NCACS Access Badges:**

- a) NCACS is a voluntary program in which Contractor personnel enroll in, and upon approval, are subsequently granted access to the installation for a period up to one year, or the length of the contract, whichever is less. An enrollment fee is required.
 - b) Background screening and credentialing will be conducted for issuance of Badge. Periodic background screenings are conducted to verify continued NCACS participation and installation access privileges.
 - c) Costs for obtaining passes through the NCACS are the responsibility of the Contractor. Information on costs and requirements to participate and enroll in NCACS is available at <http://www.rapidgate.com/vendors/how-to-enroll> or by calling 1-877-727-4342.
 - d) Refer to the attached Document C1 provided with the solicitation for additional supplemental NCACS instructions and information.
 - e) Should access to restricted areas, (B01, etc.), be required, indicate need for access to restricted areas on the base access request.
2. Base Access Sponsor Point of Contact: Contracting Officers Representative (COR) identified at time of award.
 3. Contractor Vehicles: All vehicles shall display a valid state license plate and safety inspection sticker, if applicable, and shall be maintained in good repair. The company name shall be displayed in a clearly visible manner and size on each Contractor vehicle used in the course of work. The Contractor's equipment shall be conspicuously marked for identification. Registration, proof of insurance and driver's licenses are required to obtain a station vehicle pass.
 4. Security Requirements: All security requirements apply to all subcontractors and suppliers associated with this contract. In addition to special or extraordinary security requirements, comply with the following:
 - a. Do not publicly disclose any information concerning any aspect of the materials or services relating to this contract, without prior written approval of the Contracting Officer.
 - b. Do not disclose or cause to be disseminated any information concerning the operations of the activity's security or interrupt the continuity of its operations.
 - c. Do not disclose any information to any person not entitled to receive it. Failure to safeguard any classified information that may come to the Contractor or any person under his control, may subject the Contractor, his agents or employees to criminal liability under 18 U.S.C., Sections 793 and 798.
 - d. Direct to the Contracting Officer and or Installation Security Officer for resolution all inquiries, comments, or complaints arising from any matter observed, experienced, or learned as a result of or in connection with the performance of this contract, the resolution of which may require the dissemination of official information.
 - e. Coordinate photography requirements with the Contracting Office. Some areas restrict or prohibit photographing Government property.

- f. Deviations from or violations of any of the provisions of this paragraph, will, in addition to all other criminal and civil remedies provided by law, subject the Contractor to immediate termination for default and withdrawal of the Government's acceptance and approval of employment of the individuals involved.
5. Work Hours:
- a. Unless otherwise indicated, work will be located on a Government compound, military installation, or station. Contractor work hours shall be between 0630 and 1700 Monday through Friday, or as approved by the Contracting Officer. Obtain advance approval from the Contracting Officer for Contractor personnel to remain on site beyond normal working hours. Notify the Contracting Officer at least 48 hours in advance to obtain approval for access to the jobsite or work outside of normal working hours or on Saturday, Sunday, and Federal Holidays.
 - b. Work affecting power availability or reliability must be coordinated with Transmitter Bldg. Operations (Ryan Albers – Transportation Supervisor (425) 304-5310) to take place when the Transmitter is offline. Additionally, Transmitter Bldg. 01 must be made aware of general work schedule, coordinate through QA Representative. See Paragraph 6 for more details.
6. Transmitter Coordination: NAVFAC and Transmitter Bldg. 01 Tenant have an understanding that any work affecting their Building or Utility Support Systems will be coordinated in advance, for general awareness and to meet NCTAMS and NAVIDFOR strict security requirements. Ensure the following are coordinated with Transmitter bldg. Supervisor, Ryan Albers.
- a. NOTIFICATION OF WORK: NAVFAC has agreed to keep open communication lines when work is taking place at the Substation. Simple notification of work, stating whether the Power service will be impacted or not, is sufficient. Include a simplified schedule with start date, notable milestones, and end date.
 - b. CONTRACTOR ACCESS: Contractor Access to Restricted Area – coordinate 3 days in advance. The SCADA Front End Computer is currently located at Bldg. 01.
 - c. OUTAGES: Should there be any outages required, work MUST take place during REGULARLY SCHEDULED TRANSMITTER DOWNTIME, which is typically on Thursday, for 8 hours. There is no guarantee that the Transmitter will be down as scheduled with 100% certainty. Transmitter Crew waits for confirmation to go offline the morning of; however, 9 times out of 10, they go down as scheduled. Coordinate any work that MAY impact power availability or reliability.
7. Laydown Area(s): Laydown area(s) will be provided as needed and shall be coordinated with the QA Representative. Contractor is responsible for security of material and equipment left at job site. A full-laydown down area will be provided on-base for trailers and material storage. Space at the work site will be limited to materials and equipment required for the performance of definable features of work for which installation has started and is proceeding.
8. Work Phasing: Install test and commission new Transformer A prior to demolition of existing transformer banks A and B and associated equipment. The station shall be energized and supplying power for the Facility continuously during construction. This includes connection to the base's emergency generator system. Coordinate all outages and cutovers with the Government. If an outage becomes unavoidable, it shall be scheduled at least 28 days in advance. Outages shall only be allowed 1 day a week as chosen by the Government. Please note requested date and/or time may be unavailable due to operations.

8. Work operations delay: The contractor shall plan for work operations during construction to be delayed or stopped for a minimum of one-full day to accommodate short notice events involving security or other operational matters at the site.
9. Contractor Personnel: Provide the Contracting Officer the name(s) of the supervisory person(s) authorized to act for the Contractor. Provide, and update as required, a list of the key personnel for the Contractor and subcontractors including addresses and telephone numbers for use in the event of an emergency.
10. Qualifications of the Design Engineer: Independent Engineering services must be performed and/or validated by a Registered Professional Electrical Engineer with distribution system experience similar to that gained working as a Power Systems or Transformer Engineer. The independent third party shall have not previously performed engineering design, equipment selections, studies, modification or any other like type work on this system. The Registered Professional Electrical Engineer must have a minimum of fifteen (15) years of experience in performing High Voltage Distribution System Design Build Construction. The Registered Professional Electrical Engineer must also demonstrate experience with Power Systems and Transformer Engineering by submitting names of at least five arc flash hazard analysis he/she has performed in the last five years.
11. Qualifications of the Installer: Prior to installation, submit data showing the Contractor has successfully installed systems of the same type and design as specified herein, or that Contractor has a contractual agreement with a subcontractor having such experience. Include names and locations of at least two installations where the Contractor, or subcontractor, has installed such systems. Indicate type and design of each system and certify that each has performed satisfactorily as intended for not less than 18 months.
11. Conduct: Contractor employees shall conduct themselves in a proper, efficient, courteous, and businesslike manner. Remove from the site any individual whose continued employment is deemed by the Contracting Officer to be contrary to the public interest or inconsistent with the best interests of National Security. Ensure that Contractor personnel employed on the Activity become familiar with and obey Activity regulations. Keep within the limits of the work and avenues of ingress and egress. Wear hard hats in designated areas. Do not enter any restricted areas unless required to do so and until cleared for such entry.
12. Preconstruction Conference: Prior to construction or demolition start, meet with representatives of the Contracting Officer to discuss and develop mutual understanding relative to administration of the safety programs, environmental issues, safety of building occupants and surrounding area, hazardous materials, waste disposal, construction QC procedures, construction schedule, labor provisions and other construction phase contract procedures. The Preconstruction Conference shall reinforce partnering philosophy initially established during the PAK.
13. Supervision: Provide a supervisor fluent in English on the job site during construction working hours. At all times during performance of this contract and until the work is completed and accepted, the prime contractor to whom the contract is awarded shall provide and maintain full time supervisory presence on the worksite by an employee of the prime contractor. Subcontracting out the superintendent function is not acceptable.
14. Protection of Government Property: Take special care to protect Government property. Return areas damaged as a result of construction under this contract to their original condition. In addition to FAR 52.236-9, Protection of Existing Vegetation, Structures, Equipment, Utilities, and Improvements, perform the following:
 - a. Remove or alter existing work or facilities in such a manner as to prevent injury or damage to any portion of the existing work or facilities that remain.
 - b. Repair or replace portions of existing work altered during construction operations to match existing or adjoining work, as approved by the Contracting Officer. At the completion of

operations, existing work shall be in a condition equal to or better than that which existed before new work started.

- c. Preserve the natural resources in accordance with the approved environmental protection plan.

15. Existing Underground Utilities: Verify on-site utilities and have them marked out by an independent utility locator service prior to the start of construction. Where existing piping, utilities, oil lines, and underground obstructions of any type that are to remain are indicated in locations to be traversed by new piping, ducts, and other work provided herein, and such are not indicated or specified to be removed, the elevations of the existing utilities and obstructions shall be determined before the new work is laid closer than the nearest manhole or other structure at which an adjustment in grade could be made. Obtain required dig permits and notify the Contracting Officer 15 calendar days prior to any excavation.

- 1) Project Specific Notes: The site has been subject to multiple renovations. Existing As-built drawings are not considered to reflect the current conditions in their entirety.

16. Fencing: Fencing shall be provided along the construction site at all open excavations, open utilidor lids and tunnels, as well as around the building under construction to control access by unauthorized people. Fencing must be installed to be able to restrain a force of at least 114.00 kg (250 pounds) against it. In addition, prior to the start of work, enclose those areas at the construction site which are not within the construction fence with a temporary safety fence, including gates and warning signs, to protect the public from construction activities. The safety fence shall be bright orange where it protects and made of high density polyethylene grid or approved equal a minimum of 1100 mm (42 inches) high, supported and tightly secured to steel posts located on minimum 3000 mm (10 foot) centers. Remove the fence from the work site upon completion of the contract.

17. Cleanup: The Contractor is responsible to "police" the construction area. Leave premises "broom clean." Remove temporary labels, stains and foreign substances; polish transparent gloss surfaces. Clean equipment and fixtures to a sanitary condition. Clean filters of operating equipment. Clean debris from roofs, gutters, downspouts and drainage systems. Sweep paved areas and rake clean landscaped areas. Remove waste and surplus materials, rubbish and construction facilities from the site.

-- End of Section --

SECTION 01200

PRICE AND PAYMENT PROCEDURES

1. Budget Management: The Contractor shall be responsible for budget management throughout the entire project as this is a firm-fixed price contract award. It is the intent of the Government to partner with the Contractor to maximize project value and quality while strictly controlling contract modifications and maintaining overall fiscal control.
2. Schedule of Prices: Submit on forms furnished by the Government. The initial schedule of prices may be preliminary for construction activities until the design is developed. Include a detailed breakdown of the contract price, with quantities for each kind of work. Include General Conditions, profit, and overhead in the unit prices. Break down into design and each construction category. The Contractor may invoice for bonds once the Government has approved the bonds, however, no other requests for payment will be processed without an approved Schedule of Prices.
3. Invoices:
 - a. Submit all invoices within Invoice, Receipt, Acceptance & Property, Transfer (I-RAPT) on Wide Area WorkFlow on Monday ONLY to insure timely processing during mid-week.
 - b. Invoices are to be processed electronically via a secure web-based system referred to as I-RAPT. This system provides for an efficient and consistent method to electronically submit invoices, track receipt/acceptance of documents and verify that payment has been made.
 - c. Refer to Contract Clause "252.232-7006 WIDE AREA WORKFLOW PAYMENT INSTRUCTIONS (MAY 2013)" located in the Solicitation and Proposal section of this contract. Also, the contract award will have this Reference Clause in full text with detailed instructions the contractor must follow with required data for specific fields within I-RAPT.
 - d. I-RAPT supplemental general information is provided as follows:
 - 1) The Wide Area Work Flow WAWF site provides Web-Based Training Course before submitting payments: <https://wawf/eb.mil/> .
 - 2) As a minimum, communication with the Construction Manager is required to ensure all requirements are met prior to invoice submission .
 - 3) Document type: The Contractor shall use the following type – NAVCON for all NAVFAC NW contracts.
 - 4) Invoices must have at least one attachment. NOTE that construction contracts require two attachments, the second being a Contractor Final Release Statement when submitting the final invoice for payment. Construction Manager and Project Manager will determine if additional attachments are required.
 - 5) File Names of attachments may not contain spaces or special characters, except underscore "_" to separate characters or numbers

- 6) Attached files are limited in size to a maximum of two-megabytes each. There is no maximum limit for total size of all files per invoice.
- 7) Contractor will notify the Government Primary and Secondary Inspectors that an invoice has been submitted using detail information provided in the WAWF Full Text Clause 252.232-7003, via "Send Additional Email Notifications" . WAWF does not automatically notify the assigned Government Inspectors .
- 8) Resubmit or Void invoice whenever the invoice is recalled or a notice of rejection is received from either the government invoice processing officials or the Pay Office. (Only the LPO will REJECT an invoice)

-- End of Section --

SECTION 01300

ADMINISTRATIVE REQUIREMENTS

1. Permits: No permits required.
2. Request for Information:
 - a. The Request for Information (RFI) form, provided as an attachment or upon request, is to be used for requesting information prior to submittal of quote and/or after award for various project issues, such as cost, product information, methods or time required for completion. All RFI's (both pre-award and post-award) are to be emailed directly to the Contracting Officer and Construction Manager, unless directed otherwise.
3. Performance Evaluations: The evaluation will take into account all aspects of the Contractor's performance, including evaluations from Performance Assessment Plans. Performance evaluations may be completed any time during the contract. The Government will provide a copy of the performance evaluation and an opportunity to discuss the evaluation. The performance evaluations will have an impact on the award of future contracts.
4. Required Insurance: Within 15 calendar days after award, furnish the Contracting Officer a Certificate of Insurance as evidence of the following insurance coverage amounts not less than the amount specified below in accordance with FAR Clause 52.228-5, Insurance Work On A Government Installation:
 - a. Comprehensive General Liability: \$500,000 per occurrence.
 - b. Automobile Liability: \$200,000 per person, \$500,000 per occurrence for bodily injury; \$20,000 per occurrence for property damage.
 - c. Worker's Compensation: As required by Federal and State Worker's compensation and occupational disease and other laws.
 - d. Employer's Liability Coverage: \$100,000, except in states where worker's compensation may not be written by private carriers.
 - e. Others as required by state law.
 - f. Above insurance coverage's are to extend to Contractor personnel operating Government owned equipment and vehicles.
 - g. The Certificate of Insurance shall provide for 30 calendar days written notice to the Contracting Officer by the insurance company prior to cancellation or material change in policy coverage.

For projects which require removal of asbestos containing materials the Asbestos Contractor or Subcontractor, as the case may be shall provide occurrence-based liability insurance with asbestos coverage's in an amount not less than \$1,000,000 and shall name the Government and PQP as additional insured.
5. Proprietary Rights: All field notes, design drawings, specifications, and other documents collected and produced as part of this contract shall be considered property of the Government. These data shall not be used, in whole or part, published or unpublished, as a part of any technical or non-technical presentation without written pre-approval of the Contracting Officer.
6. Oral Modification: No oral statement by any person other than the Contracting Officer, as provided in the contract clause entitled, "CHANGES AND CHANGED CONDITIONS," will in any manner or degree modify or otherwise affect the terms of this contract.

7. NO WAIVER BY THE GOVERNMENT: The failure of the Government in any one or more instances to insist upon strict performance to any of the terms of this contract or to exercise any option herein conferred shall not be construed as a waiver or relinquishment to any extent of the right to assert or rely upon such terms or options on any future occasion.
8. Equitable Adjustments– Waiver and Release of Claims:
 - a. Whenever the Contractor submits a claim for equitable adjustment under a clause which provides for equitable adjustment of the contract, such claim shall include all types of adjustments in the total amounts to which the clause entitles the Contractor, including, but not limited to, adjustment arising out of delays or disruptions.
 - b. Except as the parties may otherwise expressly agree, the Contractor shall be deemed to have waived: (1) any adjustments to which he otherwise might be entitled under the clause where such claim fails to request such adjustments; and (2) any increase in the amount of equitable adjustments additional to those requested in its claim.
 - c. The Contractor agrees that, if required by the Contracting Officer, it shall execute a release, in form and substance satisfactory to the Contracting Officer, as part of the supplemental agreement setting forth the aforesaid equitable adjustment. The Contractor further agrees that such release shall discharge the Government, including its officers, agents, and employees, from any further claims, including, but not limited to, further claims arising out of delays or disruptions caused by the aforesaid change.

-- End of Section --

SECTION 01320

SCHEDULE

1. Provide Design and Construction Schedule adequate to efficiently and effectively manage the design and construction of the project and to aid in on-time completion. The Government will use the schedule as a tool to monitor progress and to efficiently manage Quality Assurance and scheduling interfaces.
2. Include design and construction phasing and any work restrictions (such as occupied spaces, special hours, potential work disruptions).
3. Schedule shall contain Definable Features of Work (DFOW) and dates for completion of each task including, design activities, submittal preparation, submittal approvals, material procurement, and construction activities for each definable feature of work.
4. Update the schedule monthly; use 3-week look-ahead for each Quality Control meeting. Submit updated monthly schedules with each in-progress monthly invoice.

-- End of Section --

SECTION 01321

CONTRACTOR'S PRODUCTION REPORTS

1. Submit Contractor Production Reports electronically to the Contracting Officers Representative (COR) Complete and submit reports **daily** unless otherwise requested by the Contracting Officer. Form will be provided for use by the COR.
 - a. **Project Specific Requirements:** Reports are to be submitted daily.
2. Reports shall include:
 - a. Worker hours by classification, move-on and move-off of construction equipment furnished by the prime, subcontractor or the Government, and materials and equipment delivered to the site.
 - b. Safety meetings, checks and inspections.
 - c. Disposition of Construction Waste Material: Per Environmental Protection Plan.
 - d. Design and Construction Services: Including, but not necessarily limited to:
 - 1) Check all Contract Documents for correctness and correlation. If the Contractor notes any discrepancy or ambiguity, immediately notify the COR.
 - 2) Examine the work site as to conditions affecting the work. Field verify site conditions and scope of work, including but not limited to the measurement and location of all significant items required to perform the work. Failure by the Contractor to familiarize oneself with available information regarding these conditions shall not relieve the Contractor from the responsibility of successfully completing the work.

-- End of Section --

SECTION 01330

ADMINISTRATIVE AND CONSTRUCTION PHASE

1. Submittal Requirements:

- a. General: Provide required Administrative and Technical Construction Phase submittals to the Contracting Officer's Representative in the prescribed format.
- b. Construction Submittals: Prior to construction, approved per Quality Control Plan.
- c. Detailed Requirements:
 - a. Submittals shall be approved by the Government prior to commencement of work, unless submitted for record purposes.
 - b. Submittals shall be identified by Construction Specification Institutes (CSI) numbering system applicable to each group of submittals. Naval Station Everett Public Works uses the older 5-character 16-division CSI numbering system to facilitate integration of new submittal records into the existing submittal files.
- c. Transmittal Sheet: Provide a completed NAVFAC Form 4355 "Submittal Transmittal Form" (Document D) as the coversheet and presented as the first page for each submittal required. Additional guidance is provided as follows:
 - 1) Completely fill out all items in Part I – "For Contractor Use" on Form 4355.
 - 2) Submittal Transmittal Number: Numerically sequence submittals by filling in the "submittal no." block, starting with "01". For resubmittals, use "01-R1", etc.
- d. Submittal Description: Utilize the five-digit CSI Master Format number and the associated short title description for the description in Part I on form 4355, e.g.

"07250-Spray-Applied Fireproofing – 2017"
- e. Electronic File Naming: Identify the submittal by utilizing the following electronic file naming convention: Use the submittal sequence number, the five-digit CSI Master Format number and associated short title description as the electronic file name, e.g.

"01-07250 Spray-Applied Fireproofing - 2017.pdf"

For re-submittals, use:

"01R-07250 Spray-Applied Fireproofing - 2017.pdf"

- f. Submission Method: Provide submittals electronically via email in individual PDF format files for each submittal package. Failure to submit as required will result in immediate disapproval.
 - g. Physical Submittals are to be mailed or hand-delivered, along with associated NAVFAC Form 4355 transmittal cover sheet.
2. Each of the submittals identified shall be provided as a stand-alone PDF file with the Transmittal cover sheet form 4355 as the first page.
3. Submittal Log: A submittal log shall be prepared to identify the submittals that will be provided. Provide a submittal log update weekly.

4. Testing log is required to be developed as well for critical tests. Contractor's quality control process is to verify compliance to the most recent code, regulation or industry standard that meets or exceeds the original buildings standards.
5. Required Submittals: The following is a partial list of required submittals. This list is not all-inclusive and must be built upon and incorporated into Attachment E2 to make a complete submittal register. Refer to Part 2B and the prescriptive specifications for additional requirements.

a. **CONSTRUCTION PHASE SUBMITTALS:**

1) Construction Phase Submittals Prior to Construction

- a) 01200 - Schedule of Prices, initial due 21 calendar days after award and a detailed due prior to construction.
- b) 01330 – Preliminary Project Schedule (20 activities minimum), initial due 7 days prior to PAK meeting.
- b) 01330 – Submittal Register
- c) 01320 – Construction Schedule: Provide preliminary construction schedule, due prior to PAK. Follow on schedule up dates required with each in-progress invoice.
- d) 01450 - QC Plan, prior to Construction (may be phased).
- e) 01352 – Accident Prevention Plan (APP) comply with EM 385-1-1, Appendix A
- f) 01352 – Contractor Safety Self-Evaluation Checklist.
- g) 01352 – Job Activity Hazard Analysis (AHA) Reports – as applicable
- h) 01352 – Construction Safety Plan
- i) 01575 - Environmental Protection Plan
- j) 01575 – Waste Management Plan
- k) 01575 – Demolition Plan
- l) Material Safety Data Sheets (MSDS) as applicable.
- m) Licenses and Permits: Per this specification (Utility locates, confined spaces, Environmental, etc.....) and Section 01352.
- n) Certificates: Training and Certification i.e. OSHA 30-hour Construction Safety Course, Quality Control, Site Safety and Health Officer (SSHO), Safety and Health Manager (SHM), 40-hour off-site hazardous waste site instruction, Cranes, etc
- o) Letters of Designation: Site Safety and Health Officer (SSHO), Safety and Health Manager (SHM), Quality Control Manager, etc...

2) Construction Phase Administrative Submittals during Construction

- a) 01320 – Construction Schedule (bi-weekly)
- b) 01321 – Production Reports (weekly)
- c) 01450 – Quality Control Reports (weekly)
- d) 01352 – Crane Critical Lift Plan
- e) 01352 – Crane Reports and Certificate of Compliance

- f) 01352 - Monthly Work-Hour Reports
- g) 01352 – Accident Reports – submit if incident occur
- h) 01575 – Environmental Test Reports, Laboratory Analysis
- i) Additional submittals per submittal register, developed by the Contractor.

3) Construction Phase Administrative Submittals Prior to Final Inspection and Acceptance

- a) 01575 - Pre-construction survey
- b) 01575 - Solid waste disposal permit
- c) 01575 - Waste determination documentation
- d) 01575 - Disposal documentation for hazardous and regulated waste
- e) 01575 - Contractor 40 CFR employee training records
- f) 01575 - Regulatory notification
- g) 01575 - Solid waste disposal report
- h) 01575 - Contractor Hazardous Material Inventory Log
- i) 01330 - Record Drawings, due at Beneficial Occupancy, electronically in “PDF” and AutoCAD format. Furnish hard copy and electronic format for all as-built and O&M information. See Parts 2B, and 3 for additional requirements.
- j) 01782 – Training: Provide a minimum of 24 hours of classroom training and 24 hours of on-site hands-on demonstration training for six personnel. The hands-on training will be videotaped for future training. Submit 2 DVD copies.
- k) 01782 - Closeout Items: Furnish keys, spare parts, training material, and required documents.
- l) 01782 – Operation and Maintenance Support Information: Due prior to testing as applicable, no later than 30 calendar days before Beneficial Occupancy. The requirements for content are listed in Section 01782.

4) CONSTRUCTION PHASE TECHNICAL SUBMITTALS: The following is a partial list of required technical submittals. This list is not all-inclusive and must be built upon by the Contractor and incorporated into a complete submittal register.

- a. Technical Submittals – Government Approved: Following review by the contractor, the following critical “technical” submittals are to be provided to the Government for review (as applicable):
 - 1) Concrete
 - 2) Transformers
 - 3) Electrical Switchboard/Switchgear/MDP/Panel Boards
 - 4) SCADA, Controls
- b. Draft Extended Warranty- Provide for approval to include all major components. Products submitted without the required warranty language shall be disapproved. See paragraph 8 below.

7. General Warranty: Warrant all materials and work for not less than one year after final acceptance of the work, except as otherwise indicated in this RFP. If required to provide remedial repair of previously installed work due to latent defect or unacceptable work performance, warrant the repaired work for one year after the completion and acceptance of the repair. For warranted items, furnish the manufacturers' original written warranty accompanied by a copy of the supplier's receipt showing place of purchase, telephone number of supplier, address, delivery order number if applicable, and ticket number.
8. Major Component 5-Year Extended Warranty: Provide Manufacturer's extended warranties on manufacturing defects. Warranty language to expressly convey to the Government full repair and/or replacement coverage at NO COST to the Government. Repairs/replacement shall be made within 30 days of written notice of failure unless otherwise agreed to by the Government. Provide originals to the Government and post copies in wall-mounted binder. Provide each warranty in page protector sleeves. Include company name, address, phone, fax, website, and email information for warranty claims. Clearly indicate warranty expiration dates on binder coversheet/index. Major Components requiring extended warranty include:
 - 1) Transformers
 - 2) Electrical Switchboard/Switchgear/MDP/Panel Boards
 - 3) SCADA, Controls

-- End of Section --

SECTION 01352

SAFETY AND OCCUPATIONAL HEALTH REQUIREMENTS:

1. References: The publications listed below form a part of this specification to the extent referenced. Use current version of referenced requirements at the time of contract solicitation. The publications are referred to within the text by the basic designation only.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI Z359.1, Safety Requirements for Personal Fall Arrest System, Subsystems, and Components
ANSI A10.32, Fall Protection systems for Construction and Demolition Operations
ANSI A10.6, Demolition Operations
ANSI Z9.2, Fundamentals Governing the Design and Operation of Local Exhaust Systems
ANSI Z88.2, Respiratory Protection
ANSI Z358.1, Emergency Eyewash and Shower Equipment

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 241, Safeguarding Construction, Alteration, and Demolition Operations
NFPA 51B, Fire Prevention during Welding, Cutting, and Other Hot Work
NFPA 70, National Electrical Code
NFPA 70E, Electrical Safety in the Workplace

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1 Safety -- Safety and Health Requirements

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

29 CFR 1910 Occupational Safety and Health Standards
29 CFR 1910.146 Permit-required Confined Spaces
29 CFR 1915 Occupational Safety and Health Standards for Shipyard Employment
29 CFR 1926 Safety and Health Regulations for Construction

2. Submittals: See Section 01333, SUBMITTAL REQUIREMENTS.
3. Pre-construction Conference: The contractors designated superintendent shall attend the preconstruction conference.
4. Weekly Safety Meetings: Hold weekly at the project site. Attach minutes showing contract title, signatures of attendees, and a list of topics discussed to the QC Contractor Quality Control daily report.1.3.1.3 Work Phase Meeting

The appropriate AHA shall be reviewed and attendance documented by the Contractor at the preparatory, initial, and follow-up phases of quality control inspection.

5. Accident Prevention Plan: Prepare the APP in accordance with the required and advisory provisions of EM 385-1-1 including Appendix A, "Minimum Basic Outline for Preparation of Accident Prevention Plan," and as modified herein. Include the associated AHA and other specific plans, programs and procedures listed on Pages A-3 and A-4 of EM 385-1-1, some of which are listed below.
 - a. Submit the APP at least 15 calendar days prior to start of work at the job site, following Appendix A of EM 385-1-1. Make the APP site specific. Notice to Proceed will be given after Government finds the APP acceptable.

- b. Contents of the Accident Prevention Plan
- 1) Name and safety related qualifications of safety officer (including training and any certifications).
 - 2) Qualifications of competent and of qualified persons.
 - 3) Identity of the individual who will complete exposure data (hours worked); accident investigations, reports and logs; and immediate notification of accidents to include subcontractors.
 - 4) Emergency response plan.
 - 5) Confined Space Entry Plan.
 - 6) Hazardous Material Use. Provisions to deal with hazardous materials, pursuant to the Contract Clause Hazardous Material Identification and Material Safety Data." And the following:
 - 7) Inventory of hazardous materials to be introduced to the site with estimated quantities.
 - a) Plan for protecting personnel and property during the transport, storage, and use of the materials.
 - b) Emergency procedures for spill response and disposal.
 - c) Material Safety Data Sheets for inventoried materials not required in other section of this specification.
 - d) Labeling system to identify contents on all containers on-site.
 - e) Plan for communicating high health hazards to employees and adjacent occupants.
 - 8) Hazardous Energy Control Plan. For hazardous energy sources, comply with EM 385-1-1, paragraph 12.A.07.
 - 9) Critical Lift Plan. Weight handling critical lift plans shall be prepared and signed in accordance with EM 385-1-1, paragraph 16.c.18.
 - 10) Alcohol and Drug Abuse Plan
 - 11) Fall Protection and Prevention (FP&P) Plan.
 - 12) Silica Exposure Reduction.
 - 13) Training Records and Requirements.
 - 14) Severe Weather Plan.
6. Activity Hazard Analysis: Prepare for each phase of the work. As a minimum, define activity being performed, sequence of work, specific hazards anticipated, control measures to eliminate or reduce each hazard to acceptable levels, training requirements for all involved, and the competent person in charge of that phase of work. For work with fall hazards, including fall hazards associated with scaffold erection and removal, identify the appropriate fall arrest systems. For work with materials handling equipment, address safeguarding measures related to materials handling equipment. For work requiring excavations, include excavation safeguarding requirements. The appropriate AHA shall be reviewed and attendance documented by the Contractor at the preparatory, initial, and follow-up phases of quality control inspection.
- Submit the AHA for review at least 15 calendar days prior to the start of each phase. Format subsequent AHA as amendments to the APP. In accordance with contract quality control requirements, each AHA will be reviewed during an on-site preparatory inspection.

7. Display of Safety Information: Display the following information in clear view of the on-site construction personnel:
 - a. Map denoting the route to the nearest emergency care facility with emergency phone numbers.
 - b. AHA
 - c. Confined space entry permit.
8. Contractor Safety Self-Evaluation Checklist: Contracting Officer will provide a "Contractor Safety Self-Evaluation Checklist" to the Contractor. Complete the checklist monthly and submit with each request for payment. A score of 90 or greater is required. Failure to submit the completed safety evaluation checklist or achieve a score of at least 90 will result in retention of up to 10 percent of the voucher.
9. Regulatory Requirements: In addition to the detailed requirements included in this contract, work performed shall comply with USACE EM 385-1-1, and applicable laws, ordinances, criteria, rules, and regulations. Submit matters of interpretation of standards to the appropriate administrative agency for resolution before starting work. Where the requirements of this specification, applicable laws, criteria, ordinances, regulations, and referenced documents vary, the most stringent requirements shall apply. UFC 3-560-01 takes precedence over all other guidance for electrical safety.
10. Site Conditions Reports:
 - a. Accident Reports: For recordable injuries and illnesses, and property damage accidents resulting in at least \$2,000 in damages, the Prime Contractor shall conduct an accident investigation to establish the root cause(s) of the accident, fill out the Contractor Incident Report (CIF) electronically and submit via the NAVFAC Enterprise Safety Applications Management System (ESAMS) within five calendar days. The Contracting Officer will provide copies of any required or special forms.
 - 1) Weight Handling Equipment (WHE) Accident: A WHE accident occurs when any one or more of the six elements in the operating envelope fails to perform correctly during operation, including operation during maintenance or testing resulting in personnel injury or death; material or equipment damage; dropped load; derailment; two-blocking; overload; or collision, including unplanned contact between the load, crane, or other objects. A dropped load, derailment, two-blocking, overload, and collision are considered accidents even though no material damage or injury occurs. A component failure (e.g., motor burnout, gear tooth failure, bearing failure) is not considered an accident solely due to material or equipment damage unless the component failure results in damage to other components (e.g., dropped boom, dropped load, roll over).
 - 2) For any weight handling equipment accident (including rigging gear accidents), the Prime Contractor shall conduct an accident investigation to establish the root cause(s) of the accident, complete the WHE Accident Report (Crane and Rigging Gear) form and provide the report to the Contracting Officer within 30 calendar days of the accident. Crane operations shall not proceed until cause is determined and corrective actions have been implemented to the satisfaction of the contracting officer. The Contracting Officer will provide a blank copy of the accident report form.
 - b. Notification: Notify the Contracting Officer as soon as practical, but not later than four hours, after any accident meeting the definition of Recordable Injuries or Illnesses or High Visibility Accidents, property damage equal to or greater than \$2,000, or any weight handling equipment accident. Include contractor name; contract title; type of contract; name of activity, installation or location where accident occurred; date and time of accident; names of personnel injured; extent of property damage, if any; extent of injury, if known, and brief

description of accident (e.g., type of construction equipment used, PPE used). Preserve the conditions and evidence on accident site until the Government investigation team arrives and Government investigation is conducted.

- c. Monthly Work-Hour & Exposure Report: Monthly work-hour and exposure reporting, to the Contracting Officer or designated representative, is required to be attached to the monthly billing request. This report is a compilation of employee-hours worked and related exposure each month for all site workers, both prime and subcontractor. Monthly reporting shall be listed on the "Monthly Labor Hour and Safety Audit Summary" form available from the Contracting Officer.
 - d. OSHA Citations and Violations: Provide the Contracting Officer or designated representative with a copy of each OSHA citation, OSHA report and contractor response. Correct violations and citations promptly and provide written corrective actions to the Contracting Officer or designated representative.
4. Site Safety and Health Officer (SSHO) Qualifications & Duties: SSHO shall perform safety and occupational health management, surveillance, inspections, and safety enforcement for the Contractor. The assignment of the SSHO does not relieve the Contractor from the regulatory requirements governing safety responsibility. The SSHO on this project can be the site superintendent unless otherwise indicated. The SSHO shall meet the following requirements:
- In addition to duties required in EM 385-1-1, the SSHO shall perform the following:
- 1) Conduct daily safety and health inspections and maintain a written log that includes area/operation inspected, date of inspection, identified hazards, recommended corrective actions, estimated and actual dates of corrections. Attach safety inspection logs to the daily production report.
 - 2) Attend pre-construction conference, pre-work meetings including preparatory inspection meeting, and periodic progress meetings.

Failure to actively apply an acceptable safety program will result in dismissal and a project work stoppage that will remain in effect pending approval of a suitable replacement.

5. Hot Work: Prior to performing "Hot Work" (e.g., welding, cutting) or operating other flame-producing/ spark-producing devices, request a written permit from the NRNW Fire & Emergency Services Fire Inspector from Naval Station Everett. **CONTRACTORS ARE REQUIRED TO MEET ALL CRITERIA BEFORE A PERMIT IS ISSUED.** It is mandatory to have a designated FIRE WATCH for any "Hot Work" done at this activity. The Fire Watch shall be trained in accordance with NFPA 51B and remain on-site as required after completion of the task or as specified on the hot work permit. Include additional "Hot Work" requirements such as that for the contractor to obtain services from a NFPA Certified Marine Chemist for "HOT WORK" within or around flammable materials (such as fuel systems, welding/cutting on fuel pipes) or confined spaces (such as sewer wet wells, manholes, vaults, etc.) that have the potential for flammable or explosive atmospheres.
6. Hazardous Material Use: Each hazardous material must receive approval prior to being brought onto the job site or prior to any other use in connection with this contract. Allow a minimum of 10 working days for processing of the request for use of a hazardous material.

Notwithstanding any other hazardous material used in this contract, radioactive materials or instruments capable of producing ionizing/non-ionizing radiation (with the exception of radioactive material and devices used in accordance with USACE EM 385-1-1 such as nuclear density meters for compaction testing and laboratory equipment with radioactive sources) as well as materials which contain asbestos, mercury or polychlorinated biphenyls, di-isocyanates, or lead-based paint are prohibited. The Contracting Officer, upon written request may consider exceptions to the use of any of the above excluded materials.

The Request for Proposal should have identified materials such as PCB, lead paint, and friable and non-friable asbestos. If material, not indicated, that may be hazardous to human health upon disturbance during construction operations is encountered, stop that portion of work and notify the Contracting Officer immediately. Within 14 calendar days the Government will determine if the material is hazardous. If material is not hazardous or poses no danger, the Government will direct the Contractor to proceed without change. If material is hazardous and handling of the material is necessary to accomplish the work, the Government will issue a modification pursuant to FAR 52.243-4, Changes, and FAR 52.236-2, Differing Site Conditions.

7. Pre-outage Coordination Meeting: Apply for utility outages at least 15 days in advance. As a minimum, include the location of the outage, utilities being affected, duration of outage, and any necessary sketches. Once approved, and prior to beginning work on the utility system requiring shut down, attend a pre-outage coordination meeting with the Contracting Officer to review the scope of work and the lock-out/tag-out procedures for worker protection. No work will be performed on energized electrical circuits unless proof is provided that no other means exist.
8. Fall Hazard Protection and Prevention Program: Establish a fall protection and prevention program, for the protection of all employees exposed to fall hazards. Include company policy; identify responsibilities, education and training requirements, fall hazard identification, prevention and control measures, inspection, storage, care, and maintenance of fall protection equipment and rescue and evacuation procedures.
 - a. Fall Protection for Roofing Work: Implement all protection controls based on the type of roof being constructed and work being performed. Evaluate the roof area to be accessed for its structural integrity including weight-bearing capabilities for the projected loading.
 - 1) A safety monitoring system is not adequate fall protection for low sloped roofs and is not authorized.
 - 2) Work on steep-sloped roofs, including residential or housing type construction, requires a personal fall arrest system, guardrails with toe-boards, or safety nets.
 - b. Fall Prevention and Design: During design, consider and eliminate fall hazards encountered at the facility during maintenance evolutions whenever possible. If it is not feasible to eliminate or prevent the need to work at heights with its subsequent exposure to fall hazards, include control measures in the design to protect personnel conducting maintenance work after completion of the project. In addition to the detailed requirements included in the provisions of this contract, incorporate the requirements of 29 CFR 1910 Standards in the design (29 CFR 1915 applies for work in Shipyards)
9. Weight Handling Equipment:
 - a. Crane Critical Lift Plan: Prepare and sign weight handling critical lift plans for lifts over 75 percent of the capacity of the crane or hoist (or lifts over 50 percent of the capacity of a barge mounted mobile crane's hoists) at any radius of lift; lifts involving more than one crane or hoist; lifts of personnel; and lifts involving non-routine rigging or operation, sensitive equipment, or unusual safety risks. Submit the plan 15 calendar days prior to on-site work and include the requirements of USACE EM 385-1-1, paragraph 16.C.18. as well as the following:
 - b. For lifts of personnel, demonstrate compliance with the requirements of 29 CFR 1926.550(g).
 - c. For barge mounted mobile cranes, barge stability calculations identifying barge list and trim based on anticipated loading; and load charts based on calculated list and trim. The amount of list and trim shall be within the crane manufacturer's requirements.
 - d. Provide a Certificate of Compliance for each crane entering an activity under this contract (see Contracting Officer for a blank certificate). Certificate shall state that the crane and rigging gear meet applicable OSHA regulations (with the Contractor citing which OSHA

- regulations are applicable, e.g., cranes used in construction, demolition, or maintenance shall comply with 29 CFR 1926 and USACE EM 385-1-1 section 16 and Appendix H. The Certificate of Compliance shall state that the crane operator(s) is qualified and trained in the operation of the crane to be used. Also certify that all of its crane operators working on the DOD activity have been trained in the proper use of all safety devices (e.g., anti-two block devices). Post these certifications on the crane.
- e. Notify the Contracting Officer 15 days in advance of any cranes entering the activity so that necessary quality assurance spot checks can be coordinated. Contractor's operator shall remain with the crane during the spot check.
 - f. Comply with the crane manufacturer's specifications and limitations for erection and operation of cranes and hoists used in support of the work. Perform erection under the supervision of a designated person (as defined in ASME B30.5). Perform all testing in accordance with the manufacturer's recommended procedures.
 - g. Comply with ASME B30.5 for mobile and locomotive cranes, ASME B30.22 for articulating boom cranes, ASME B30.3 for construction tower cranes, and ASME B30.8 for floating cranes and floating derricks.
 - h. Under no circumstance make a lift at or above 90% of the crane's rated capacity in any configuration.
 - i. When operating in the vicinity of overhead transmission lines, operators and riggers shall be alert to this special hazard and shall follow the requirements of USACE EM 385-1-1 section 11 and ASME B30.5 or ASME B30.22 as applicable.
 - j. Use cribbing when performing lifts on outriggers.
 - k. Position the crane hook/block directly over the load. Side loading of the crane is prohibited.
 - l. Certification records which include the date of inspection, signature of the person performing the inspection, and the serial number or other identifier of the crane that was inspected shall be available for review by Contracting Officer personnel.
 - m. Written reports listing the load test procedures used along with any repairs or alterations performed on the crane shall be available for review by Contracting Officer personnel.
 - n. Certify that all crane operators have been trained in proper use of all safety devices (e.g. anti-two block devices).
 - o. Take steps to ensure that wind speed does not contribute to loss of control of the load during lifting operations. Prior to conducting lifting operations, set a maximum wind speed at which a crane can be safely operated based on the equipment being used, the load being lifted, experience of operators and riggers, and hazards on the work site. Include this maximum wind speed determination in the activity hazard analysis plan for that operation.
13. Utility Locations and Verification Prior to Excavation: Obtain digging permit approval from Base personnel through Contracting Officer's Quality Assurance Representative two-weeks prior to digging. All underground utilities in the work area must be positively identified utilizing an independent private utility locating service in coordinated with the station utility department and the QA Representative. Maintain all markings during utility investigation throughout the contract.
14. Utility Location Verification: Physically verify underground utility locations by hand digging using wood or fiberglass handled tools when any adjacent construction work is expected to come within three feet of the underground system. Use hand digging within 2 feet of known utilities. If construction is parallel to an existing utility, expose the utility by hand digging every 100 feet within 5 feet of the excavation.

15. Utilities within Concrete Slabs: Utilities located within concrete slabs are extremely difficult to identify due to the reinforcing steel used in the construction of these structures. Whenever work involves concrete chipping, saw cutting, or core drilling, the existing utility location must be coordinated with station utility departments in addition to a private locating service. Outages to isolate utility systems shall be used in circumstances where utilities are unable to be positively identified. The use of historical drawings does not alleviate the contractor from meeting this requirement.

Utility distribution electrical duct banks are known to existing under the deck surface. Thorough locates and existing as-built drawing review and research will be required prior to cutting the concrete deck.

16. Conduct of Electrical Work: Follow electrical safety criteria specified in USACE EM 385-1-1, and NFPA 70E during the conduct of all work.
17. Work in Confined Spaces: In addition to the requirements of Section 06.I of USACE EM 385-1-1, OSHA 29 CFR 1910.146 and OSHA 29 CFR 1926.21(b)(6), comply with the following paragraphs. Any potential for a hazard in the confined space requires a permit system to be used.
- a. Confined Space Signage: Provide permanent signs integral to or securely attached to access covers for permit-required confined spaces provided by this contract. Signs wording: "DANGER--PERMIT-REQUIRED CONFINED SPACE - DO NOT ENTER -" in bold letters a minimum of 25 mm (one inch) in height and constructed to be clearly legible with all paint removed. The signal word "DANGER" shall be red and readable from a distance.
 - b. Entry Procedures. Prohibit entry into a confined space by personnel for any purpose, including hot work, until the qualified person has conducted appropriate tests to ensure the confined or enclosed space is safe for the work intended and all potential hazards are controlled or eliminated and documented. (See Section 06.I.06 of USACE EM 385-1-1 for entry procedures.) Review all hazards pertaining to the space with each employee during AHA process.
 - a.) Forced air ventilation is required for all confined space entry operations. Maintain minimum air exchange requirements to ensure exposure to any hazardous atmosphere is kept below its' action level.
 - b.) Sewer wet wells require continuous atmosphere monitoring with audible alarm for toxic gas detection.

-- End of Section --

SECTION 01450

QUALITY CONTROL

Maintain quality control for and inspect all work under the contract. The AEDOR, as a member of the Contractor QC organization, shall remain directly involved during the construction process. For certain projects, the Quality Control Manager, Superintendent, and Site Safety and Health Officer may be combined – see requirements below.

1. QC Plan: Submit a QC Plan for Government review and acceptance. The QC plan shall include the following:
 - a. **NAMES, QUALIFICATIONS and RESPONSIBILITIES**: For each person in the QC organization.
 - b. **OUTSIDE ORGANIZATIONS**: Outside organizations, including architectural and consulting engineering firms and a description of the services these firms will provide.
 - c. **INITIAL SUBMITTAL REGISTER**: Include submittal reviewer, estimated date of delivery.
 - d. **TESTING LABORATORIES**: Accredited laboratories as applicable.
 - e. **TESTING PLAN AND LOG**: Tests required, referenced by specification paragraph number requiring the test, frequency, and person responsible for each test.
 - f. **LIST OF DEFINABLE FEATURES**: A Definable Feature of Work (DFOW) is a task, which is separate and distinct from other tasks, and has the same control requirements and work crews.
 - g. **COMMUNICATION PLAN**: Provide a plan for key decisions and possible problems the Contractor and Government may encounter during the design phase of the project. Communication Plan shall indicate the frequency of design meetings and what information is covered in those meetings, key design decision points tied to the Network Analysis Schedule and how the Contractor plans to include the Government in those decisions, peer review procedures, interdisciplinary coordination, design review procedures, and comment resolution.
2. QC Manager Responsibilities:
 - a. Participate in the Post Award Kick-off, Partnering and Coordination Meetings and Production Meetings.
 - b. Immediately stop any work that does not comply with contract plans and specifications, and direct the removal and replacement of any defective work.
 - c. Prepare Contractor Production and QC Reports and submit electronically weekly.
 - d. Hold biweekly QC meetings with AEDOR, Superintendent, and Government technical team; participation shall be suitable for the phase of work.
 - e. Ensure that safety inspections are performed. Attend weekly Toolbox meetings.
 - f. Maintain submittal log.
 - g. Maintain updated as-built drawings on site.
 - h. Maintain testing plan and log. Ensure that all testing is performed per contract.
 - i. Maintain deficiency log on site, noting dates deficiency identified, and date corrected.

- j. Certify and sign statement on each invoice that all work to be paid under the invoice has been completed in accordance with contract requirements.
 - k. Perform Punch-out and Pre-final inspections, and participate in Final Inspections. Establish list of deficiencies; correct prior to the Final inspection
 - l. Ensure that all required keys, operation and maintenance manuals, warranty certificates, and the As-built drawings are submitted to the Contracting Officer.
3. Control Phases: Use the Three Phases of Control process for construction QC.
- a. Preparatory Phase: Review all applicable documents for compliance with all applicable laws, codes, regulations, and the requirements of the contract, including contract drawings and specifications. Determine requirements for testing and certification. Review submittal approvals for materials, equipment, shop drawings, and applicable methods of construction and installation. Include all Preparatory Phase items in the QC Report
 - b. Initial Phase: Observe and inspect the initial portion of the work performed under a DFOW to establish the quality of the workmanship, resolve conflicts in construction, ensure that testing is done and certified as required, and to check all work procedures to ascertain the work is in conformance with required safety requirements. Record and report nonconforming work and work not of acceptable quality and requiring correction or rework. Include all Initial Phase items, along with initial phase checklist and, in the QC Report.
 - c. Follow-Up Phase: Occurs at the completion of each DFOW. Ensure the work is in compliance with contract requirements, quality of workmanship for all work is maintained, and all work performed meets safety requirements. Include all Follow-Up Phase items, including date, in the QC Report.
4. QC Manager: The QC Manager must possess a current certificate showing successful completion of the NAVFAC Contractor Quality Management (CQM) Training. QC Manager may also act as Superintendent and Safety Manager
- a. Army Corps Quality Management Certification: QC Manager is required to take the one day ACG course and provide certification prior to appointment as QC Manager.

-- End of Section --

SECTION 01500

TEMPORARY CONSTRUCTION FACILITIES AND CONTROLS

Contractor Work Site: Limit use of the premises for work and for storage of material and equipment associated with the contract. Unless otherwise specified or separately agreed to, Government owned material handling equipment, transportation equipment or general tools will not be available for Contractor's use. Clean work area daily and after completion of the work, removing all loose debris and disposing of all non-permanent materials IAW the contractor's Waste Management Plan.

1. Temporary Facilities: The Contractor may provide his own office facilities; coordinate and obtain advance approval from the Contracting Officer. Provide and maintain suitable sanitary facilities within the construction limits of the contract. Dispose of sanitary waste in accordance with the applicable laws, and local regulation.
2. Contractor-Furnished Equipment: Equipment is subject to the inspection and approval of the Contracting Officer, prior to and during the life of the contract. All equipment and vehicles shall display readily visible Contractor identification markings. Relocate stored Contractor equipment that may interfere with operations of the Government or with others on-site.
3. Contractor-furnished Material: Protect and secure products stored at this site.
 - a. All replacement units, parts, components, and materials to be used in the maintenance, repair and alteration of facilities and equipment shall be new and compatible with the existing equipment on which it is to be used, and shall comply with applicable Government, commercial, or industrial standards such as Underwriters Laboratories, Inc., and National Electrical Manufacturers Association.
 - b. In addition, submit a current certificate recognized by the State or local authority that states the Contractor has completed at least 10 hours of training in backflow preventer installations.
4. Temporary Utilities:
 - a. The Government will make available points of connection to water and power for use in reasonable quantities. This does not apply to temporary restroom facilities which shall be provided by the Contractor.
 - b. All labor, material, and equipment necessary to affect temporary utility tie-ins, including transformers if necessary, shall be at the expense of the Contractor and under the surveillance of the Contracting Officer.
 - c. The Contractor shall be responsible for any damages to Government, private or public facilities and property that may result from the installation and removal of these temporary utility tie-ins. Corrections and repairs shall be made at the Contractor's expense.
 - d. The actual location and installation of the temporary tie-in, together with any interruptions of utilities systems, shall be identified and approved by the Contracting Officer prior to execution. Notify the Contracting Officers Representative and Station Utilities 15 calendar days prior to any tie-ins.
 - e. Permanent utility systems, when indicated, will be available for tie-in.
 - f. Telephone and Data Service: Make arrangements with local telephone company. Service through base utilities is not available.
 - g. Maintain utility services to existing facilities surrounding the site at all times during construction.
 - h. Contractor shall install and certify back flow preventers on all connections to the potable water supply system.

-- End of Section --

SECTION 01575

ENVIRONMENTAL CONTROLS AND PROTECTION

REFERENCES

U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA)

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| EPA 530/F-93/004 | (1993; Rev O; Updates I, II, IIA, IIB, and III) Test Methods for Evaluating Solid Waste (Vol IA, IB, IC, and II) (SW-846) |
| EPA 832-R-92-005 | (1992) Storm Water Management for Construction Activities Developing Pollution Preventions and Plans and Best Management Practices |

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

- | | |
|-----------------|--|
| 29 CFR 1910 | Occupational Safety and Health Standards |
| 29 CFR 1910.120 | Hazardous Waste Operations and Emergency Response |
| 40 CFR 112 | Oil Pollution Prevention |
| 40 CFR 122.26 | Storm Water Discharges (Applicable to State NPDES Programs, see section 123.25) |
| 40 CFR 173 | Procedures Governing the Rescission of State Primary Enforcement Responsibility for Pesticide Use Violations |
| 40 CFR 241 | Guidelines for Disposal of Solid Waste |
| 40 CFR 243 | Guidelines for the Storage and Collection of Residential, Commercial, and Institutional Solid Waste |
| 40 CFR 258 | Subtitle D Landfill Requirements |
| 40 CFR 260 | Hazardous Waste Management System: General |
| 40 CFR 261 | Identification and Listing of Hazardous Waste |
| 40 CFR 262 | Standards Applicable to Generators of Hazardous Waste |
| 40 CFR 263 | Standards Applicable to Transporters of Hazardous Waste |
| 40 CFR 264 | Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities |
| 40 CFR 265 | Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities |

40 CFR 266	Standards for the Management of Specific Hazardous Wastes and Specific Types of Hazardous Waste Management Facilities
40 CFR 268	Land Disposal Restrictions
40 CFR 270	EPA Administered Permit Programs: The Hazardous Waste Permit Program
40 CFR 271	Requirements for Authorization of State Hazardous Waste Programs
40 CFR 272	Approved State Hazardous Waste Management Programs
40 CFR 273	Standards For Universal Waste Management
40 CFR 279	Standards for the Management of Used Oil
40 CFR 280	Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks (UST)
40 CFR 300	National Oil and Hazardous Substances Pollution Contingency Plan
40 CFR 355	Emergency Planning and Notification
40 CFR 372-SUBPART D	Specific Toxic Chemical Listings
40 CFR 716	Health and Safety Data Reporting
40 CFR 761	Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions
49 CFR 171	General Information, Regulations, and Definitions
49 CFR 172	Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements
49 CFR 173	Shippers - General Requirements for Shipments and Packaging
49 CFR 178	Specifications for Packaging

1. DEFINITIONS

- a. Sediment: Soil and other debris that have eroded and have been transported by runoff water or wind.
- b. Solid Waste: Garbage, refuse, debris, sludge, or other discharged material (except hazardous waste as defined in paragraph entitled "Hazardous Waste" or hazardous debris

as defined in paragraph entitled "Hazardous Debris"), including solid, liquid, semisolid, or contained gaseous materials resulting from domestic, industrial, commercial, mining, or agricultural operations. Material not regulated as solid waste are: nuclear source or byproduct materials regulated under the Federal Atomic Energy Act of 1954 as amended; suspended or dissolved materials in domestic sewage effluent or irrigation return flows, or other regulated point source discharges; regulated air emissions; and fluids or wastes associated with natural gas or crude oil exploration or production.

1. Green waste: The vegetative matter from landscaping, land clearing and grubbing, including, but not limited to, grass, bushes, scrubs, small trees and saplings, tree stumps and plant roots. Marketable trees, grasses, and plants that are indicated to remain, be re-located, or be re-used are not included.
 2. Surplus soil: Existing soil that is in excess of what is required for this work, including aggregates intended, but not used, for on-site mixing of concrete, mortars and paving. Contaminated soil meeting the definition of hazardous material or hazardous waste is not included.
 3. Inert construction and demolition debris: Broken or removed concrete, masonry, and rock asphalt paving; ceramics; roofing paper and shingles. Inert materials [may] [may not] be reinforced with or contain ferrous wire, rods, accessories, and weldments.
 4. Wood: Dimension and non-dimension lumber, plywood, chipboard, hardboard. Treated and/or painted wood that meets the definition of lead contaminated or lead based contaminated paint is not included.
 5. Scrap metal: Scrap and excess ferrous and non-ferrous metals such as reinforcing steel, structural shapes, pipe, and wire that are recovered or collected and disposed of as scrap. Scrap metal meeting the definition of hazardous material or hazardous waste is not included.
 6. Paint cans: Metal cans that are empty of paints, solvents, thinners, and adhesives. If permitted by the paint can label, a thin dry film may remain in the can.
 7. Recyclables: Materials, equipment and assemblies such as doors, windows, door and window frames, plumbing fixtures, glazing and mirrors that are recovered and sold as recyclable. Metal meeting the definition of lead contaminated or lead based paint contaminated may not be included as recyclable if sold to a scrap metal company. Paint cans may be included as recyclable if sold to a scrap metal company.
- c. Debris: Non-hazardous solid material generated during the construction, demolition, or renovation of a structure which exceeds 2.5 inch particle size that is: a manufactured object; plant or animal matter; or natural geologic material (e.g. cobbles and boulders). A mixture of debris and other material such as soil or sludge is also subject to regulation as debris if the mixture is comprised primarily of debris by volume, based on visual inspection.
- d. Hazardous Debris: As defined in paragraph entitled "Debris" of this section, debris that contains listed hazardous waste (either on the debris surface, or in its interstices, such as pore structure) per 40 CFR 261; or debris that exhibits a characteristic of hazardous waste per 40 CFR 261.
- e. Chemical Wastes: This includes salts, acids, alkalis, herbicides, pesticides, and organic chemicals.
- f. Garbage: Refuse and scraps resulting from preparation, cooking, dispensing, and consumption of food.
- g. Hazardous Waste: Any discarded material, liquid, solid, or gas, which meets the definition of hazardous material or is designated hazardous waste by the Environmental Protection

Agency or State Hazardous Control Authority as defined in 40 CFR 260, 40 CFR 261, 40 CFR 262, 40 CFR 263, 40 CFR 264, 40 CFR 265, 40 CFR 266, 40 CFR 268, 40 CFR 270, 40 CFR 271, 40 CFR 272, 40 CFR 273, 40 CFR 279, and 40 CFR 280.

- h. Oily Waste: Petroleum products and bituminous materials.
- i. Regulated Waste: Those solid waste that have specific additional Federal, state, or local controls for handling, storage, or disposal.
- j. Class I Ozone Depleting Substance (ODS): Class I ODS is defined in Section 602(a) of The Clean Air Act and includes the following chemicals:

Chlorofluorocarbon-11 (CFC-11)	chlorofluorocarbon-213 (CFC-213)
Chlorofluorocarbon-12 (CFC-12)	chlorofluorocarbon-214 (CFC-214)
Chlorofluorocarbon-13 (CFC-13)	chlorofluorocarbon-215 (CFC-215)
Chlorofluorocarbon-111 (CFC-111)	chlorofluorocarbon-216 (CFC-216)
Chlorofluorocarbon-112 (CFC-112)	chlorofluorocarbon-217 (CFC-217)
Chlorofluorocarbon-113 (CFC-113)	Halon-1211
Chlorofluorocarbon-114 (CFC-114)	Halon-1301
Chlorofluorocarbon-115 (CFC-115)	Halon-2402
Chlorofluorocarbon-211 (CFC-211)	carbon tetrachloride
Chlorofluorocarbon-212 (CFC-212)	methyl chloroform

- k. Hazardous Materials: Any material that is defined in 49 CFR 171, listed in 49 CFR 172, and regulated as a hazardous material in accordance with 49 CFR 173, requires a Material Safety Data Sheet (MSDS) in accordance with 29 CFR 1910.120, or which during end use, treatment, handling, storage, transportation or disposal meets or has components which meet or have the potential to meet the definition of a Hazardous Waste in accordance with 40 CFR 261. Throughout this specification, hazardous material includes hazardous chemicals.

2. LABORATORY ANALYSIS

- a. Submit a copy of a laboratory analysis of solid waste and debris with the potential of becoming classified as a hazardous waste (i.e., abrasive/sand blasting debris, etc.). Waste stream determinations are required at the point of generation and must sufficiently document whether the waste will be a solid waste, hazardous waste, or Resource Conservation and Recovery Act (RCRA) exempt waste. Determinations must use EPA approved methods and provide written rationale for whether the waste is classified as hazardous or non-hazardous. The Contractor will bear the cost of the waste stream determinations, and the Contracting Officer or designated representative reserves the right to request waste stream determinations on questionable waste streams

3. REPORTS

- a. Pre-construction Survey: Perform a pre-construction survey of the project site with the Contracting Officer or designated representative, and take photographs showing existing environmental conditions in and adjacent to the site. Submit a report for the record.
- b. Solid Waste Disposal Permit: Submit one copy of a State and local permit or license showing such agencies' approval of the disposal plan before transporting wastes off Government property.
- c. Waste Determination Documentation: The Contractor will complete a Waste Determination form (provided at the pre-construction conference) for all contractor derived wastes to be generated. The waste determination must be based upon either a constituent listing from the

manufacturer used in conjunction with consideration of the process by which the waste was generated, EPA approved analytical data, or laboratory analysis (Material Safety Data Sheets (MSDS) by themselves are not adequate). All support documentation must be attached to the Waste Determination form. As a minimum, a Waste Determination form must be provided for the following wastes (this listing is not all inclusive): oil and latex based painting and caulking products, solvents, adhesives, aerosols, petroleum products, and all containers of the original materials.

- d. Disposal Documentation for Hazardous and Regulated Waste: Submit a copy of the applicable EPA [and State] permit(s), manifest(s), or license(s) for transportation, treatment, storage, and disposal of hazardous and regulated waste by permitted facilities.
- e. Contractor 40 CFR Employee Training Records: Prepare and maintain employee training records throughout the term of the contract meeting applicable 40 CFR requirements. [The Contractor will ensure every employee completes a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that ensures compliance with Federal, State and local regulatory requirements for RCRA Large Quantity Generator. The Contractor will provide a Position Description for each employee, by subcontractor, based on the Davis-Bacon Wage Rate designation or other equivalent method, evaluating the employee's association with hazardous and regulated wastes. This Position Description will include training requirements as defined in 40 CFR 265 for a Large Quantity Generator facility.] Submit these training records to the Contracting Officer or designated representative at the conclusion of the project, unless otherwise directed.
- f. Regulatory Notification: The Contractor is responsible for all regulatory notification requirements in accordance with Federal, State and local regulations. The Contractor will forward copies to the Contracting Officer or designated representative prior to commencement of work activities. Typically, regulatory notifications must be provided for the following (this listing is not all inclusive): demolition, renovation, NPDES defined site work, remediation of controlled substances (asbestos, hazardous waste, lead paint).
- g. Solid Waste Disposal Report: Monthly the Contractor will submit a solid waste disposal report to the Contracting Officer or designated representative. For each waste, the report will state the classification (using the definitions provided in this section), amount, location, and name of the business receiving the solid waste. The Contractor will include copies of the waste handling facilities' weight tickets, receipts, bills of sale, and other sales documentation. In lieu of sales documentation, the Contractor may submit a statement indicating the disposal location for the solid waste that is signed by an officer of the Contractor firm authorized to legally obligate or bind the firm. The sales documentation or Contractor certification will include the receiver's tax identification number and business, EPA or State registration number, along with the receiver's delivery and business addresses and telephone numbers. For each solid waste retained by the Contractor for his own use, the Contractor will submit on the solid waste disposal report the information previously described in this paragraph. Prices paid or received will not be reported to the Contracting Officer or designated representative unless required by other provisions or specifications of this Contract or public law.

4. ENVIRONMENTAL PROTECTION REQUIREMENTS

- a. Provide and maintain, during the life of the contract, environmental protection as defined. Plan for and provide environmental protective measures to control pollution that develops during normal construction practice. Plan for and provide environmental protective measures required to correct conditions that develop during the construction of permanent or temporary environmental features associated with the project. Comply with Federal, State (WAC 173-303 Dangerous Waste Regulations), and local regulations pertaining to the environment, including water, air, solid waste, hazardous waste and substances, oily substances, and

noise pollution. Environmental Brief: Attend an environmental brief to be included in the preconstruction meeting. Provide the following information: types, quantities, and use of hazardous materials that will be brought onto the activity; types and quantities of wastes/wastewater that may be generated during the contract.

- b. Contractor Liabilities for Environmental Protection: The Contractor is advised that this project and the station are subject to Federal, State, and local regulatory agency inspections to review compliance with environmental laws and regulations. The Contractor will fully cooperate with any representative from any Federal, State, or local regulatory agency who may visit the job site and will provide immediate notification to the Contracting Officer or designated representative, who will accompany them on any subsequent site inspections. The Contractor will complete, maintain, and make available to the Contracting Officer or designated representative, station, or regulatory agency personnel all documentation relating to environmental compliance under applicable Federal, State and local laws and regulations. The Contractor will immediately notify the Contracting Officer or designated representative if a Notice of Violation (NOV) is issued to the Contractor.
1. The Contractor will be responsible for all damages to persons or property resulting from Contractor fault or negligence as well as for the payment of any civil fines or penalties which may be assessed by any Federal, State or local regulatory agency as a result of the Contractor's or any subcontractor's violation of any applicable Federal, State or local environmental law or regulation. Should a Notice of Violation (NOV), Notice of Noncompliance (NON), Notice of Deficiency (NOD), or similar regulatory agency notice be issued to the Government as facility owner/operator on account of the actions or inactions of the Contractor or one of its subcontractors in the performance of work under this contract, the Contractor will fully cooperate with the Government in defending against regulatory assessment of any civil fines or penalties arising out of such actions or inactions.

5. ENVIRONMENTAL PROTECTION PLAN

- a. Five days after the award of contract, the Contractor will meet with the Navy's Point of Contact to discuss the proposed Environmental Protection Plan and develop a mutual understanding relative to the details of environmental protection, including measures for protecting natural resources, required reports, and other measures to be taken. The Environmental Protection Plan will be submitted in the following format and will, at a minimum, address the following elements (also refer to paragraph entitled "Protection of Natural Resources" in this section):
1. Description of the Environmental Protection Plan
 - (1) General overview and purpose
 - (2) General site information
 2. Storm Water Management and Control
 - (1) Provide temporary erosion and sediment control per the requirements of the National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction Activities. Prepare Stormwater Pollution Prevention Plan (SWPPP), submit Notice of Intent (NOI), and obtain coverage under the EPA Construction General Permit.
 - (2) Contain excavated soils so that no soil movement occurs, i.e. cover with a tarp. Employ methods to ensure no sediment-laden runoff occurs.
 3. Prevention of Releases to the Environment

- (1) Procedures to prevent releases to the environment
- (2) Notifications in the event of a release to the environment
4. Protection of the Environment from Waste Derived from Contractor Operations
 - (1) Control and disposal of solid and sanitary waste INCLUDING concrete slurry capture and discharge prevention to surrounding soil/stream areas.
 - (2) Control and disposal of hazardous waste (Hazardous Waste Management Section)
 - (3) This item will consist of the management procedures for all hazardous waste to be generated. The elements of those procedures will coincide with the Activity Hazardous Waste Management Plan. A copy of the Activity Hazardous Waste Management Plan will be provided by the Contracting Officer or designated representative. As a minimum, include the following:
 - 1) Procedures to be employed to ensure a written waste determination is made for appropriate wastes which are to be generated
 - 2) Sampling/analysis plan
 - 3) Methods of hazardous waste accumulation/storage (i.e., in tanks and/or containers)
 - 4) Management procedures for storage, labeling, transportation, and disposal of waste (treatment of waste is not allowed unless specifically noted)
 - 5) Management procedures and regulatory documentation ensuring disposal of hazardous waste complies with Land Disposal Restrictions (40 CFR 268)
 - 6) Management procedures for recyclable hazardous materials such as lead-acid batteries, used oil, and the like
 - 7) Used oil management procedures in accordance with 40 CFR 279
 - 8) Pollution prevention\hazardous waste minimization procedures
 - 9) Plans for the disposal of hazardous waste by permitted facilities
 - 10) Procedures to be employed to ensure all required employee training records are maintained.
6. ENVIRONMENTAL PROTECTION PLAN REVIEW
 - a. Fourteen days after the environmental protection meeting, submit the proposed Environmental Protection Plan for further discussion, review, and approval. Commencement of work will not begin until the environmental protection plan has been approved.
7. CONTRACTOR HAZARDOUS MATERIAL INVENTORY LOG
 - a. Submit the "Contractor Hazardous Material Inventory Log" (copy at end of section), which provides information required by (EPCRA Sections 312 and 313) along with corresponding Material Safety Data Sheets (MSDS) to the Contracting Officer or designated representative at the start and at the end of construction (30 days from final acceptance), and update no later than January 31 of each calendar year during the life of the contract. Documentation for any spills/releases, environmental reports or off-site transfers may be requested by the Contracting Officer or designated representative.

EXECUTION

1. CONTRACTOR HAZARDOUS MATERIAL INVENTORY LOG

- a. Submit the "Contractor Hazardous Material Inventory Log."
- b. Preserve the natural resources within the project boundaries and outside the limits of permanent work. Restore to an equivalent or improved condition upon completion of work. Confine construction activities to within the limits of the work indicated or specified. Conform to the national permitting requirements of the Clean Water Act.

2. WATER RESOURCES

- a. Oily and Hazardous Substances: Prevent oil or hazardous substances from entering the ground, drainage areas, or navigable waters. In accordance with 40 CFR 112, surround all temporary fuel oil or petroleum storage tanks with a temporary berm or containment of sufficient size and strength to contain the contents of the tanks, plus 10 percent freeboard for precipitation. The berm will be impervious to oil for 72 hours and be constructed so that any discharge will not permeate, drain, infiltrate, or otherwise escape before cleanup occurs.

3. FISH AND WILDLIFE RESOURCES

- a. Do not disturb fish and wildlife. Do not alter water flows or otherwise significantly disturb the native habitat adjacent to the project and critical to the survival of fish and wildlife, except as indicated or specified.
- b. Remove no trees.

4. HISTORICAL AND ARCHAEOLOGICAL RESOURCES

- a. Carefully protect in-place and report immediately to the Contracting Officer or designated representative historical and archaeological items or human skeletal remains discovered in the course of work. Stop work in the immediate area of the discovery until directed by the Contracting Officer or designated representative to resume work. The Government retains ownership and control over historical and archaeological resources.

5. EROSION AND SEDIMENT CONTROL MEASURES

- a. Burnoff: Burnoff of the ground cover is not permitted.

6. CONTROL AND DISPOSAL OF SOLID WASTES

- a. Pick up solid wastes, and place in covered containers that are regularly emptied. Do not prepare or cook food on the project site. Prevent contamination of the site or other areas when handling and disposing of wastes. At project completion, leave the areas clean. Recycling is encouraged and can be coordinated with the Contracting Officer or designated representative and the activity recycling coordinator. Remove all solid waste (including non-hazardous debris) from Government property and dispose off-site at an approved landfill. Solid waste disposal off-site must comply with most stringent local, State, and Federal requirements including 40 CFR 241, 40 CFR 243, and 40 CFR 258.
- b. Do not dispose of any material in Government or other contractor owned dumpsters. Dumpster material is screened prior to departure from base by base waste disposal.

7. CONTROL AND DISPOSAL OF HAZARDOUS WASTES

- a. Hazardous Waste/Debris Management: The Contractor will identify all construction activities that will generate hazardous waste/debris. The Contractor must provide a documented waste determination for all resultant waste streams. Hazardous waste/debris will be identified, labeled, handled, stored, and disposed of in accordance with all Federal, State, and local

regulations including 40 CFR 261, 40 CFR 262, 40 CFR 263, 40 CFR 264, 40 CFR 265, 40 CFR 266, and 40 CFR 268. Hazardous waste will also be managed in accordance with the approved Hazardous Waste Management Section of the Environmental Protection Plan. Store hazardous wastes in approved containers in accordance with 49 CFR 173 and 49 CFR 178. Hazardous waste generated within the confines of Government facilities will be identified as being generated by the Government. Prior to removal of any hazardous waste from Government property, all hazardous waste manifests must be signed by activity personnel from the Station Environmental Office. No hazardous waste will be brought onto Government property. Provide to the Contracting Officer or designated representative a copy of waste determination documentation for any solid waste streams that have any potential to be hazardous waste or contain any chemical constituents listed in 40 CFR 372-SUBPART D. For hazardous wastes spills, verbally notify the Contracting Officer or designated representative immediately.

1. Regulated Waste Storage/Satellite Accumulation/90 Day Storage Areas

- (1) If the work requires the temporary storage/collection of regulated or hazardous wastes, the Contractor will request the establishment of a Regulated Waste Storage Area, a Satellite Accumulation Area, or a 90 Day Storage Area at the point of generation. The Contractor must submit a request in writing to the Contracting Officer or designated representative providing the following information:

Contract Number _____ Contractor _____
Haz/Waste or
Regulated Waste POC _____ Phone Number _____
Type of Waste _____ Source of Waste _____
Emergency POC _____ Phone Number _____
Location of the Site: _____
(Attach Site Plan to the Request)

Attach a waste determination form. Allow ten working days for processing this request.

- b. Pollution Prevention/Hazardous Waste Minimization: The Contractor will actively pursue minimizing the use of hazardous materials and the generation of hazardous waste while on-base. The Hazardous Waste Management Section of the Environmental Protection Plan will include the Contractor's procedures for pollution prevention/hazardous waste minimization. For preparing this part of the plan, the Contractor may consult the activity Environmental Office for suggestions and to obtain a copy of the installation's pollution prevention/hazardous waste minimization plan for reference material. If no written plan exists, the Contractor may obtain information by contacting the Contracting Officer or designated representative. The Contractor will describe the types of the hazardous materials expected to be used in the construction when requesting information.
- c. Hazardous Material Control: The Contractor will include hazardous material control procedures in the Safety Plan. The procedures will address and ensure the proper handling of hazardous materials, including the appropriate transportation requirements. The Contractor will submit a MSDS and estimated quantities to be used for each hazardous material to the Contracting Officer or designated representative prior to bringing the material on base. Typical materials requiring MSDS and quantity reporting include, but are not limited

to, oil and latex based painting and caulking products, solvents, adhesives, aerosol, and petroleum products. At the end of the project, the Contractor will provide the Contracting Officer or designated representative with the maximum quantity of each material that was present at the site at any one time, the dates the material was present, the amount of each material that was used during the project, and how the material was used. The Contractor will also ensure that hazardous materials are utilized in a manner that will minimize the amount of hazardous waste that is generated. The Contractor will ensure that all containers of hazardous materials have NFPA labels or their equivalent. Copies of the MSDS for hazardous materials will be kept on site at all times and provided to the Contracting Officer or designated representative at the end of the project. The Contractor will certify that all hazardous materials removed from the site are hazardous materials and do not meet the definition of hazardous waste per 40 CFR 261.

1. Petroleum Products: Conduct the fueling and lubricating of equipment and motor vehicles in a manner that protects against spills and evaporation. All used oil generated on site will be managed in accordance with 40 CFR 279. The Contractor will determine if any used oil generated while on-site exhibits a characteristic of hazardous waste. In addition, used oil containing 1000 parts per million of solvents will be considered a hazardous waste and disposed of at Contractor's expense. Used oil mixed with a hazardous waste will also be considered a hazardous waste. All hazardous waste will be managed in accordance with the paragraph entitled Hazardous Waste/Debris Management of this section and will be managed in accordance with the approved Environmental Protection Plan.
2. Releases/Spills of Oil and Hazardous Substances: Take precautions to prevent releases/spills of oil and hazardous substances. In the event of any releases of oil and hazardous substances, chemicals, or gases; immediately (within 15 minutes) notify the Base or Activity Fire Department, the activity's Command Duty Officer, and the Contracting Officer or designated representative. The Contractor is responsible for verbal and written notifications as required by the federal 40 CFR 355, State, local regulations and Navy Instructions. Spill response will be in accordance with 40 CFR 300 and applicable State and local regulations. Contain and clean up these spills without cost to the Government. If Government assistance is requested or required, the Contractor will reimburse the Government for such assistance. Provide copies of the written notification and documentation that a verbal notification was made within 20 days.

8. DUST CONTROL

- a. Keep dust down at all times, including during nonworking periods. Sprinkle or treat, with dust suppressants, the soil at the site, haul roads, and other areas disturbed by operations. Dry power brooming will not be permitted. Instead, use vacuuming, wet mopping, wet sweeping, or wet power brooming. Air blowing will be permitted only for cleaning nonparticulate debris such as steel reinforcing bars. Only wet cutting will be permitted for cutting concrete blocks, concrete, and bituminous concrete. Do not unnecessarily shake bags of cement, concrete mortar, or plaster.

9. ABRASIVE BLASTING

- a. Blasting Operations: The use of silica sand is prohibited in sandblasting. Provide tarpaulin drop cloths and windscreens to enclose abrasive blasting operations to confine and collect dust, abrasive, agent, paint chips, and other debris [in accordance with the requirements specified]. [Perform work involving removal of hazardous material in accordance with 29 CFR 1910.]

- b. Disposal Requirements: Submit analytical results of the debris generated from abrasive blasting operations per paragraph entitled Laboratory Analysis of this section. Hazardous waste generated from blasting operations will be managed in accordance with paragraph entitled "Hazardous Waste\Debris Management" of this section and with the approved HWMP. [Disposal of non-hazardous abrasive blasting debris will be in accordance with paragraph entitled, "Control and Disposal of Solid Wastes".]

10. NOISE

Make the maximum use of low-noise emission products, as certified by the EPA. Blasting or use of explosives will not be permitted without written permission from the Contracting Officer or designated representative, and then only during the designated times.

11. EMS

In accordance with M-OPNAV 5090.1, all personnel working within any federal agency must complete Environmental Management Systems (EMS) Awareness Training. One source is: <https://navfac.ecatts.com>. Password is "navfac".

-- End of Section --

SECTION 01741

WASTE MANAGEMENT

1. Develop a Waste Management Plan that identifies all recyclable material and disposal methods for all material.
2. Reduce, recycle, or salvage as much waste material as possible with a goal of diverting at least 50% of construction waste from landfill.
3. Address waste reduction, recycling and salvage as part of the waste management plan. Report volume or weight of disposed and recycled materials.
4. The Contractor is responsible for removing and disposing of all waste materials generated. Consider all material recyclable or reusable, unless clearly demonstrated the material requiring disposal is waste material
5. Do not dispose of any material in Government or other contractor owned dumpsters. Dumpster material is screened prior to departure from base by base waste disposal.
6. Prior to start of construction, meet with QA Representative and Base Recycling Coordinator to agree on materials that the Base Recycling Center will take.

-- End of Section --

SECTION 01782

OPERATION & MAINTENANCE SUPPORT INFORMATION (OMSI):

This section provides the requirements for operation and maintenance support information (OMSI). OMSI contains detailed as-built information describing the efficient, economical and safe operation and maintenance, and repair of the facility. OMSI is provided as hard copy, manuals, .pdf files, and computerized maintenance management system (CMMS) data. The OMSI is to be factual, concise, comprehensive, and written to be easily used by maintenance personnel. Descriptive matter and theory must include technical details that are essential for a comprehensive understanding of the operation, maintenance, and repair of the system. The OMSI preparer shall ensure that OMSI reflect changes to systems and equipment, made during construction. The words "system," "systems," and "equipment," when used in this document refer to as-built systems and equipment.

1. GENERAL REQUIREMENTS

- a. Organization of OMSI: Prepare the OMSI in three parts. PART 1 – Facility Information, PART 2 – Primary Systems Information, and PART 3 – Product Data. Cross-referencing within or between OMSI parts must be specific.
- b. Sources of Data: The sources of data needed to prepare the OMSI include but are not limited to, the design plans and specifications, field visits, approved construction submittals and manufacturer's catalog data for materials, methods, and systems used in this contract.
- c. OMSI Units of Measure: Provide OMSI utilizing the units of measure required by the RFP, Refer to UFGS Section 01 33 10.05 20, Design Submittal Procedures. 1.1.4 Schedule of Operation and Maintenance Data Packages Refer to UFGS Section 01 78 23, OPERATION AND MAINTENANCE DATA, located at the website location: <http://www.wbdg.org/ccb> for descriptions of SD-10, Operation and Maintenance Data packages, when referenced UFGS sections. Submit Operation and Maintenance Manuals in accordance with Section 01 78 24.05 20 FACILITY OPERATION AND MAINTENANCE SUPPORT INFORMATION. When using UFGS Sections that reference 01 78 23, OPERATION AND MAINTENANCE DATA, change reference to 01 78 24.05 20, FACILITY OPERATION AND MAINTENANCE SUPPORT INFORMATION.

2. PRODUCTS

2.1 DESCRIPTION OF WORK

2.1.1 OMSI Part I - Facility Information

- a. General Facility and System Description - Describe the function of the facility. Detail the overall dimensions of the facility, foundation type, and facility Category Code. List and generally describe all the facility systems listed in Part II, Primary Systems Information. Include photographs marked up and labeled to show key operating components and the overall facility appearance. Include a copy of the final "Completion Certification" which certifies completion and compliance of construction by the Contractor. This documentation will be provided by the Construction Quality Control Manager.
- b. Floor Plans - Provide uncluttered, legible 11" x 17" floor plans. Include only room numbers, type, or function of spaces, and overall facility dimensions on the floor plans. Do not include construction instructions, references, frame numbers, etc.

c. Utility Connection and Cutoff Plans - Provide utility site plans and floor plans that indicate the main interior and exterior connection and cutoff points for all utilities. Include enough information to enable someone unfamiliar with the facility to locate the connection and cutoff points. Indicate the room number, panel number, circuit breaker, valve number, etc., of each connection and cutoff point, and what that connection and cutoff point controls. These plans are in addition to Floor plans.

d. Equipment Warranty Tags and Guarantor's Local Representative - Provide with each warranty the name, address, and telephone number of the guarantor's representative nearest to the location where the equipment and appliances are installed. The guarantor's representative, upon request of the station representative, shall honor the warranty during the warranty period, and shall provide the services prescribed by the terms of the warranty. At the time of installation, tag each item of warranted equipment with a durable, oil- and water-resistant tag approved by the Contracting Officer. Attach tag with copper wire and spray with a clear silicone waterproof coating. Leave the date of acceptance and QC's signature blank until project is accepted for beneficial occupancy. Tag shall show the following information:

EQUIPMENT/PRODUCT WARRANTY TAG

Type of Equipment/Product _____
Warranty Period _____ From _____ To _____
Contract No. _____
Inspector's Signature _____
Date Accepted _____
Contractor:
Name: _____
Address: _____
Telephone: _____
Warranty Contact: _____
Name: _____
Address: _____
Telephone: _____

e. Extended Warranty Information - List and include copies of all warranties for products, equipment, components, and subcomponents whose duration exceeds one year. Cross-reference the list to the warranty copies included in Part III, Product Data. For each warranty listed, indicate the applicable specification section, duration, start date, end date, and the point of contact for warranty fulfillment. Also, list or reference all specific operation and maintenance procedures that must be performed to keep the warranty valid.

f. Equipment and Warranty Tags Listing - Provide a table that lists the major equipment shown on the equipment schedules and written warranties for equipment/products provided. Show the item descriptions, warranty information, locations, model numbers; and the names, addresses, and telephone numbers of the manufacturers, suppliers, contractor, and subcontractors.

g. HVAC Filters - Provide a table that lists the quantity, type, size, and location of each HVAC filter.

2.1.2 Part II - Primary Systems Information

OMSI Part II, Primary Systems Information requires using a systems approach. This approach requires that consideration be given to the entire system (that is, the interfaces of equipment, connections, and material flow within the system). Use Notes, Cautions, and Warnings throughout the Part II, Primary Systems Information to emphasize important and critical instructions and procedures. OMSI Part II, Primary Systems Information are required for the primary systems listed below:

1. Electrical systems, including transformers, generator paralleling switchgear and control systems, SCADA systems, secondary switchgear, metering, variable frequency drives, and intercom systems.

2. Site electrical utilities, including transformers, generators, and load bank equipment. For each system, address;

a. Operation

(1) System Description - Provide a detailed discussion of the system composition and operation. Include technical details that are essential for an understanding of the system.

(2) Start-Up and Shutdown Procedures - Provide step by step instructions to bring systems from static to operational configurations and from operating to shutdown status.

(3) Normal and Emergency Operating Instructions - Provide a discussion of the normal and emergency operation and control of the system. Address operating norms (for example, temperatures, pressures, and flow rates) expected at each zone or phase of the system. Supplement the discussion with control and wiring diagrams and data. Include shutdown instruction for fires, explosions, spill, or other contingencies.

(4) Field Test Reports - Provide Field Test Reports that apply to equipment associated with the system.

(5) Operator Servicing Requirements - Provide instructions for services to be performed by the operator such as lubrication, adjustments, and inspection.

b. Preventive Maintenance- Preventive Maintenance Procedures, and Schedules - Provide Task Card for each individual maintenance task identified on the PM plan and Schedule. Include detailed PM procedures, safety instructions and precautions including lock out/tag out precautions, required skill level, number of personnel needed, frequency, special tools needed, parts needed, and estimated time required to complete the task. Include lubrication schedules indicating types, grades, and capacities.

c. Troubleshooting Guides and Diagnostic Techniques – Provide step-by-step procedures for isolating the cause of system malfunctions. The procedures shall clearly state indications or symptoms of trouble; the sequential instructions, including checks and tests to be performed and conditions to be sought, to determine the cause; and remedial measures to bring the equipment and system to operating condition. Identify special test equipment required to perform the procedures. Start the troubleshooting guide at the system level and proceed to a level where detailed manufacturer's troubleshooting procedures for equipment and components can be referenced. Provide clear references to repair procedures included in Part III, Product Data.

2.1.3 PART III Construction Submittals

This portion of the OMSI manual provides a record of the as-built products, materials, and equipment. This submittal includes a complete copy of the approved construction submittal used in the facility construction. Include, as a minimum, O&M Data, Materials, Equipment, Data Sheets, Test Reports, Warranties, Certificates, and Shop Drawings.