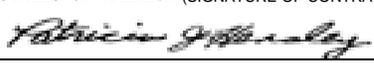


SOLICITATION/CONTRACT/ORDER FOR COMMERCIAL ITEMS <i>OFFEROR TO COMPLETE BLOCKS 12, 17, 23, 24, AND 30</i>				1. REQUISITION NUMBER 96311M-3090-3744		PAGE 1 OF 29	
2. CONTRACT NO. DACW31-03-P-0239		3. AWARD/EFFECTIVE DATE 28-May-2003		4. ORDER NUMBER		5. SOLICITATION NUMBER DACW31-03-T-0055	
7. FOR SOLICITATION INFORMATION CALL:		a. NAME JACQUELI HENDERSON		b. TELEPHONE NUMBER (No Collect Calls) 410-962-3529		8. OFFER DUE DATE/LOCAL TIME 28-Apr-2003 04:30 PM 12 May 2003	
9. ISSUED BY CONTRACTING DIVISION PO BOX 1715 BALTIMORE MD 21203-1715 TEL: 410-962-5638 FAX: 410-962-0933		CODE CW31		10. THIS ACQUISITION IS <input type="checkbox"/> UNRESTRICTED <input checked="" type="checkbox"/> SET ASIDE: 100% FOR <input checked="" type="checkbox"/> SMALL BUSINESS <input type="checkbox"/> SMALL DISADV. BUSINESS <input type="checkbox"/> 8(A) SIC: 1731 SIZE STANDARD: \$7.0		11. DELIVERY FOR FOB DESTINATION UNLESS BLOCK IS MARKED <input type="checkbox"/> SEE SCHEDULE 13a. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700) 13b. RATING 14. METHOD OF SOLICITATION <input checked="" type="checkbox"/> RFQ <input type="checkbox"/> IFB <input type="checkbox"/> RFP	
15. DELIVER TO PLANNING & ENGR BRANCH DAVID MACGREGOR 5900 MACARTHUR BLVD NW WASHINGTON DC 20315-0220		CODE E250700		16. ADMINISTERED BY CONTR DIV OPERATIONS BR PO BOX 1715 BALTIMORE MD 21203-1715		CODE E1P0500	
17a. CONTRACTOR/ OFFEROR PACIFIC BREAKER SYSTEMS INC PETER STOPPELLO 38 EXECUTIVE COURT NAPA CA 94558 TEL: (707)226-1144		CODE 3C916 FACILITY CODE		18a. PAYMENT WILL BE MADE BY USACE FINANCE CENTER ATTN: DISBURSING 5722 INTEGRITY DRIVE MILLINGTON TN 38054-5005		CODE TOB0200	
<input type="checkbox"/> 17b. CHECK IF REMITTANCE IS DIFFERENT AND PUT SUCH ADDRESS IN OFFER		18b. SUBMIT INVOICES TO ADDRESS SHOWN IN BLOCK 18a. UNLESS BLOCK BELOW IS CHECKED <input type="checkbox"/> SEE ADDENDUM					
19. ITEM NO.		20. SCHEDULE OF SUPPLIES/ SERVICES		21. QUANTITY		22. UNIT	
		SEE SCHEDULE					
23. UNIT PRICE		24. AMOUNT		25. ACCOUNTING AND APPROPRIATION DATA		26. TOTAL AWARD AMOUNT	
				See Schedule		\$728,333.00	
<input type="checkbox"/> 27a. SOLICITATION INCORPORATES BY REFERENCE FAR 52.212-1. 52.212-4. FAR 52.212-3. 52.212-5 ARE ATTACHED.		ADDENDA <input type="checkbox"/> ARE <input type="checkbox"/> ARE NOT ATTACHED		<input type="checkbox"/> 27b. CONTRACT/PURCHASE ORDER INCORPORATES BY REFERENCE FAR 52.212-4. FAR 52.212-5 IS ATTACHED.		ADDENDA <input type="checkbox"/> ARE <input type="checkbox"/> ARE NOT ATTACHED	
28. CONTRACTOR IS REQUIRED TO SIGN THIS DOCUMENT AND RETURN COPIES TO ISSUING OFFICE. CONTRACTOR AGREES TO FURNISH AND DELIVER ALL ITEMS SET FORTH OR OTHERWISE IDENTIFIED ABOVE AND ON ANY ADDITIONAL SHEETS SUBJECT TO THE TERMS AND CONDITIONS SPECIFIED HEREIN.				29. AWARD OF CONTRACT: REFERENCE OFFER DATED . YOUR OFFER ON SOLICITATION (BLOCK 5), INCLUDING ANY ADDITIONS OR CHANGES WHICH ARE SET FORTH HEREIN, IS ACCEPTED AS TO ITEMS:			
30a. SIGNATURE OF OFFEROR/CONTRACTOR				31a. UNITED STATES OF AMERICA (SIGNATURE OF CONTRACTING OFFICER)		31c. DATE SIGNED	
						30-May-2003	
30b. NAME AND TITLE OF SIGNER (TYPE OR PRINT)		30c. DATE SIGNED		31b. NAME OF CONTRACTING OFFICER (TYPE OR PRINT) PATRICIA J HENSLEY / ADDED BY SUMI TEL: 410-962-7718 EMAIL:			
32a. QUANTITY IN COLUMN 21 HAS BEEN <input type="checkbox"/> RECEIVED <input type="checkbox"/> INSPECTED <input type="checkbox"/> ACCEPTED, AND CONFORMS TO THE CONTRACT, EXCEPT AS NOTED		33. SHIP NUMBER		34. VOUCHER NUMBER		35. AMOUNT VERIFIED CORRECT FOR	
		PARTIAL FINAL					
32b. SIGNATURE OF AUTHORIZED GOVT. REPRESENTATIVE		32c. DATE		36. PAYMENT <input type="checkbox"/> COMPLETE <input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL		37. CHECK NUMBER	
41a. I CERTIFY THIS ACCOUNT IS CORRECT AND PROPER FOR PAYMENT		41b. SIGNATURE AND TITLE OF CERTIFYING OFFICER		41c. DATE		40. PAID BY	
		42a. RECEIVED BY (Print)		42b. RECEIVED AT (Location)		42c. DATE REC'D (YY/MM/DD)	
						42d. TOTAL CONTAINERS	

Section SF 30 - BLOCK 14 CONTINUATION PAGE

CLAUSES INCORPORATED BY REFERENCE

252.247-7023 Alt III Transportation of Supplies by Sea (May 2002) Alternate III MAY 2002

Section SF 1449 - CONTINUATION SHEET

STATEMENT OF WORK

SECTION C

DESCRIPTION/SPECS/WORK STATEMENT

C.1 DESCRIPTION OF WORK

C.1.1 Work to be Done: The Contractor shall furnish all labor, materials, supplies and equipment to perform all of the work necessary to replace existing circuit breakers. Key elements of work are as follows:

- Provide and install twenty-three (23) new 1200A 350 MVA SF₆ Gas/Rotary arc circuit breakers with nominal voltage of 4.16 KV.
- Perform switchgear bus bracing analysis and testing for 350 MVA upgrade. Upgrade bus bracing for 350 MVA if analysis shows the existing 250 MVA bus bracing is insufficient.
Install SF₆ loss of pressure alarm lights on the door of each breaker compartment on (23) cells.
- Remove and properly dispose of 23 existing circuit breakers, including the arc-chutes filled with asbestos.
- Replace all protective relays, voltmeters, wattmeters on 4.16 KV switchgear doors with new door and new solid state relaying equipment.

C.1.2 Place of Delivery: Equipment, services and materials supplied under this contract, shall be delivered and installed at the Dalecarlia Water Treatment Plant at 5900 MacArthur Boulevard, NW, Washington, DC 20016-2514.

C.1.3 Site of Work: The Pumping Station Building at the Dalecarlia Water Treatment Plant. Twenty-three (23) of the new SF₆ circuit breakers are to be installed at the 4.16 KV switchgear room located inside the Pumping Station.

C.1.4 A site visit for prospective bidders may be arranged by contacting the authorized Contracting Officers Technical Representative, Patty Gamby at (202)764-2639. All prospective bidders will be taken by the Contracting Officer's Representative for a site visit to the Pumping Station Building, where bidders will be allowed to take measurements of the compartments and inspect the ratings in the switchgear of the 4.16 KV room where the new SF₆ circuit breakers will be installed in order to ensure proper installation. It is recommended that all prospective bidders attend the site visit.

C.2 Submittals: Schematic Diagrams will be provided to the Contractor by the Government. The Contractor is required to submit the following for Government approval.

- 1) Detailed calculations confirming adequacy of bus bracing (existing or new) for proposed new circuit breakers.
- 2) Schematic control diagram of the new direct replacement circuit breaker and cubicles.
- 3) Nameplate designations
- 4) Instruction books, certified tests, reports, complete parts list, and recommended spare parts list shall be furnished with the new circuit breakers.
- 5) Switchgear bus bracing analysis evaluation report.

C.3 Work to Be Performed: The Contractor shall furnish, install, test and assure proper operation of twenty-three (23) new type SF₆ Gas/Rotating-arc circuit breakers and new switchgear compartment doors with new solid state relaying equipment. Switchgear bus bracing analysis and evaluation shall be performed for verification of the 350 MVA upgrade. Install SF₆ pressure alarms on the door of each breaker compartment on (23) cells. After removing from the premises the existing circuit breakers, the Contractor shall properly dispose of old equipment, including the arc-chutes of all removed circuit breakers that are filled with asbestos (69 asbestos arc-chutes assemblies, 3 arc-chutes per circuit breaker).

C.4 Equipment

C.4.1 The specific rating of each breaker to be replaced and upgraded from 250 MVA to 350 MVA is as specified in replacement breaker rating contained in these specifications. The following shall be provided as a minimum. The replacement breakers are to fit into the existing twenty-two (22) ITE type HV 4.16 KV, 250 MVA switchgear cells and one (1) Westinghouse Type DHP cell without the need for any switchgear breaker cell modifications and shall be provided with new rating as follows:

Maximum Voltage: 4.76 KV
 Application Voltage: 4.16 KV
 Continuous Current: 1200A
 MVA: 350 MVA
 Maximum Interrupting Amps: 49 KA
 Interrupting Time: 5 cycles
 Close and Latch: 132 KA Peak
 Basic Impulse Level: 60 KV
 Low Frequency Withstand: 19KV
 Close Voltage: 125 VDC
 Spring Charging Voltage: 125 VDC
 Trip Voltage: 125 VDC
 Capacitive Trip Device: No
 MOC Driving Capability: Yes
 TOC Driving Capability: Yes

All the new circuit breakers are to be installed in the existing cubicles of the switchgear and to replace the existing circuit breakers. The circuit breakers shall be new units, reconditioned units are not acceptable under this contract. The control rated voltage for existing circuit breakers in the cubicles is at 125 VDC. The Contractor shall be required to remove the old units, install the new units, perform analysis and testing switchgear bus bracing for 350 MVA; install SF₆ pressure alarm lights on the door of each breaker compartment on (23) cells; also replace all protective relays, voltmeters, wattmeters on 4.16 KV switchgear compartment doors with new solid state relaying equipment and make all the electrical connections to the new units; test the new SF₆ Gas/Rotary-arc circuit breakers, transport from the asbestos filled arc-chutes in accordance with this specification.

C.4.2. The new SF₆ Gas/Rotary-arc circuit breakers shall be fully compatible with the existing switchgear controls. All supplied equipment shall conform to and tests shall be conducted in accordance with the latest applicable standards of the American National Standards Institute (ANSI), the National Electrical Manufacturer Association (NEMA), and the Institute of Electrical and Electronic Engineer (IEEE) unless otherwise stated herein.

C.4.2.1 Application Guide for AC High Voltage Circuit Breakers Rated on a Symmetrical

Current Basis – ANSI C37.010.

C.4.2.2 Rating Structure for AC High Voltage Circuit Breakers Rate on a Symmetrical Current Basis – ANSI C37.04.

C.4.2.3 Preferred Ratings and Related Required Capabilities for AC High Voltage Circuit Breakers Rated on a Symmetrical Current Basis – ANSI C37.06.

C.4.2.4 Test Procedure for AC High Voltage Circuit Breakers Rate on a Symmetrical Current Basis – ANSI C37.09.

C.4.2.5 Requirement for Electrical Control for AC High Voltage Circuit Breakers – ANSI C37.11.

C.4.2.6 Guide to Specifications for AC High Voltage Circuit Breakers Rated on a Symmetrical Current Basis or a Total Current Basis – ANSI C37.12.

C.4.2.7 Metal-Clad and Station-Type Cubicle Switchgear (above 1000V) – ANSI C37.20.2.

C.4.2.8 Requirement for Conversion of Switchgear Equipment – ANSI C37.59.

C.4.3 All replacement breakers are to utilize SF₆ type circuit breaker elements. Vacuum circuit breaker elements are not acceptable.

C.4.4 Breaker Element Primary Interrupter Assemblies:

C.4.4.1 Vessels: Each phase shall independently separated by a molded bottle (vessel). Each bottle is suitably sealed to ensure that the gas leakage rate. The design of the gaskets and the gasket seals associated with the bottles shall ensure that the gaskets are not displaced by the pressure resulting from operation of the circuit breaker at rated short-circuit current. Each bottle shall be provided with a pressure relief device (an expulsion membrane) to protect personnel from exposure to arc by-products and flying debris resulting from fault of interruption after the membrane bursts, the gas, arc by-products, and flying debris shall exit the bottle in a downward direction.

C.4.4.2 Medium: The vessels (bottles) shall be filled with SF₆ (sulfur Hexafluoride) gas, which serves as the medium for isolation and quenching the arc.

C.4.4.3 Rotary Arc Chamber: The circuit breakers primary (main) circuit shall contain an arc quenching chamber that consists of a contact, a quenching cylinder, an arc driving coil, and an arc runner. The insulating structures which support the stationary and moveable contacts shall be constructed of materials that are unaffected by SF₆, gas by-products. These components of the Rotary-Arc design shall be manufactured to house ample mechanical and electrical strength to withstand the stresses incidental to operation at the rated short-circuit current.

C.4.4.4 Contacts: The portions of the moveable and stationary contacts (in the primary circuit) that are exposed to the effect of the arc energy shall be constructed of materials that have ample strength to withstand all ranges of the arc. The contacts shall be multi-point (tulip) contacts that will maintain the necessary contact pressure for an indefinite period of time. The sliding contact portions of the moveable contacts shall not be exposed to the effects of the arc energy and shall be of the according on type design and arc constructed of special material to minimize surface resistance and increase conductivity.

C.4.5 The SF₆ replacement breaker shall be a spring-operated circuit breaker of sufficient spring energy storage capability for the performance of the openings-closing-opening

operation at the rated short-circuit and use within the capabilities described herein. The closing spring shall be typically motor-compressed (charged); however, each SF₆ replacement breaker can be manually operated to include manually charging the closing spring and manually cycling the breaker. The stored energy of the closing spring (upon command) shall be released and utilized (via. the linkages) to close the circuit breaker and charge the opening spring.

- C.4.6 All SF₆ replacement breaker shall be equipped with the following operating and control devices.
 - C.4.6.1 A motor of sufficient strength to charge (compress) the closing spring shall be not more than 10 seconds. The charging motor shall be automatically energized when the SF₆ breaker is placed into service. Also, when the control (or secondary) circuit is properly energized the motor will automatically recharge the closing spring upon completion of the closing operation. Thus, at this point, the breaker will be in the “closed-charged” state and available for immediate re-closing should the need arise.
 - C.4.6.2 An electromagnetic coil (closing coil) of sufficient strength to unlatch the charged closing spring shall electrically initiate the closing operation.
 - C.4.6.3 A mechanism and lever (open/close lever) to allow the breaker to be manually charged and operated (both for opening and closing operations) shall be charged with or without the breaker control circuit being supplied with electrical power.
 - C.4.6.4 An anti-pump relay which ensures that if the circuit breaker is tripped during an electrical closing command, the breaker will not close until the closing command is released and re-initiated at some point later in time when the trip command (or condition) is no longer present.
 - C.4.6.5 An anti-Release mechanism contacts shall not allow the closing coil to be energized by electrical command when the breaker is closed (and whether or not the closing spring is charged).
 - C.4.6.6 The SF₆ replacement breaker element shall be supplied with three (3) pressure switches, one attached to each molded vessel (interrupter) to individually monitor the gas pressure in each. The actuating value and the switching capabilities of the pressure switches shall trip the circuit breaker in the event of pressure loss. The Contractor shall install local SF₆ pressure alarms (white indicating lights) installed on the door of each breaker compartment on (23) cells which will indicate the leak of the pressure of the circuit breaker.
- C.4.7 All circuit breaker elements shall be held mechanically and electrically trip free during breaker levering. Safety interlocks shall interface with the existing breaker cell to prevent a breaker levering in with the primary contacts in the closed position. The new mechanism of the replacement breaker element shall have provisions to operate with the existing cell interlocks, which will discharge the tripping and closing springs before or during the process of withdrawing from or inserting into the circuit breaker compartment. A spring-charged discharge indicator shall be visible on the front of the breaker.
 - C.4.7.1 The circuit breaker manufacturer must have a test cubicle located in their factory to verify and test cell interlocks and racking system for the new replacement breaker.
- C.4.8 A complete ANSI tested circuit breaker element complete with spring-charged, stored energy mechanism shall be mounted within the new breaker frame assembly. All circuit

breakers shall be electrically and mechanically trip free. The mechanism shall have provisions to operate with existing switchgear interlocks which discharge the tripping and closing springs before or during the process of withdrawing from or inserting into the circuit breaker compartment. A spring CHARGE/DISCHARGE indicator shall be visible on the front of the breaker. Action pumping circuit shall be provided.

- C.4.9 Main current-carry parts, insulator, supports, and housing of the circuit breaker shall have sufficient mechanical strength to withstand, without incurring damage, the effect of rated short circuit currents.
- C.4.10 The circuit breakers with the same type and continuous current rating shall be physically and functionally interchangeable with each other and with the existing circuit breakers.
- C.4.11 The circuit breaker shall be capable of manual charging while the breaker is in the operation position. A manual-charging handle shall be provided for each switchgear line up.
- C.4.12 Manual pushbutton clearly marked “trip” or “open” shall be provided to open the breaker. Manual pushbutton clearly marked “close” shall be provided to manually close the breaker.
- C.4.13 The breaker shall be capable of operating all truck-operated contacts (TOC); mechanism-operated contacts (MOC), and cubicle shutter functions shall be fully functionally tested according to ANSI C37.20.2.
- C.4.14 The circuit breaker shall be connected to the new bushing assemblies with silver-plated copper bus configured for full continuous current ratings.
- C.4.15 The functionality of the existing metal “deadfront” barrier shall be maintained.
- C.4.16 As a minimum, 14 AUG, SIS switchboard wire shall be used for all control wiring.
- C.4.17 Terminal blocks with screw type terminations shall be used for terminating secondary and control wiring. No more than two wires per termination point shall be used.
- C.4.18 The new primary bushings of the new replacement breakers shall be comprised of copper silver plated copper bushing insulated with epoxy.
- C.4.19 The circuit breakers shall conform to all the latest NEMA, ANSI and IEEE standards, including ANSI C37.59, conversion of Power Switchgear Equipment.
- C.4.20 Electrically operated mechanism shall be designed to match the existing air magnet circuit. Closing and tripping mechanisms shall operate satisfactorily over the voltage range in accordance with ANSI C37.06, Table 10.
- C.4.21 Each circuit breaker mechanism shall be equipped with the following:
 - C.4.21.1 Operation Counter
 - C.4.21.2 Main Contact Position Indicator
 - C.4.21.3 Manual Tripping and Closing Devices
 - C.4.21.4 Spring Charged and Discharged Indicator

C.4.21.5 Manual Charging Handle

C.4.22 Each new circuit breakers shall retain the copper connection to the ground bus throughout the levering process.

C.4.23 The circuit breakers shall retain the existing racking mechanism and interlocks and be capable of moving the breaker and operating the mechanical interlock between the CONNECT, TEST, and DISCONNECT positions as originally designed. This shall include, but not limited to, the interlocks that prevent removal or insertion of a closed breaker operation of cubicle shutter, and positioning.

C.4.24 The operating mechanism shall be readily accessible for maintenance.

C.4.25 Control relays, auxiliary contacts and small mechanisms shall be enclosed and protected. All control relays, coils, motors and mechanisms shall be new equipment.

C.4.26 The SF₆ replacement breaker shall be designed and tested to ANSI requirements with ratings shown in Section C.4.2 of these specifications. All circuit breaker component elements shall be manufactured and assembled in an ISO 9000 certified facility.

C.4.27 The service company shall have replacement circuit breakers comparable to this installation in service for a minimum of ten (10) years. The service company shall be able to demonstrate experience in replacement breaker design for minimum of five (5) years. The service company shall demonstrate and have available a quality assurance manual.

C.5 Test and Inspections: Production tests shall be made in accordance with ANSI standards. The Government shall be notified 7 days prior to testing and shall have the right to inspect at the factory all equipment covered by the specifications at any time, and shall have the right to be present during any tests made on the equipment. The supplier shall have in place a dedicated Quality Assurance Department that is separate from production.

C.5.1 The following ANSI C37.09 design tests on the circuit breakers and housings, mounted within the existing cubicle frames shall be performed.

- 1) Rated Continuous Current – Carrying Test (for currents greater than 1200A).
- 2) Rated Full Wave Impulse Withstand Voltage Test
- 3) Momentary Current Test
- 4) Start Time Test
- 5) Low Frequency Withstand Test
- 6) Mechanism Time Test
- 7) Interlock and Auxiliary Function Test.

Certified test results shall be submitted for acceptance to the Contracting Officer's Representative.

C.6 Installation: The Contractor shall provide qualified/certified installation technicians for installation conformance.

C.7 Painting: All exterior steel parts of the circuit breaker shall be chemically treated to

ensure clean surfaces, and then given a rust resisting undercoat. The outside shall be shop finished in a light gray color equal to ASA No. 61. All exterior screws, nuts, bolts, and similar items shall be nonferrous metal or shall have an approved rust-resisting finish.

- C.8 Execution: The installation of each new circuit breaker shall be done separately in the order specified so that service is not interrupted the Dalecarlia Pumping Station. The Contractor shall notify the Contracting Officer at least a day in advance as to the time he intends to work on each Circuit Breaker, so that appropriate arrangements can be made with the Operations and Maintenance Branches for the coordination of the work.

The Contractor will start his work at the 4.16 KV switchgear room. He shall replace first the circuit breaker for transformer on Line "A", the existing unit being de-energized and removed. The new unit being installed, connected, tested, and returned to service prior to commencing the installation work for the next circuit breaker. The Contractor shall follow the procedure for the following circuit breakers in the order specified:

Line "A", 4.16 KV Circuit Breakers for:

- 1) Transformer
- 2) Third High
- 3) Third High
- 4) Second High
- 5) First High
- 6) Low Service
- 7) Unit Sub.

Line "B", 4.16 KV Circuit Breakers for:

- 1) Transformer
- 2) Bus Tie
- 3) Third High
- 4) Third High
- 5) Second High
- 6) First High
- 7) Low Service
- 8) Unit Substation 225 KVA, 4.16 KV/240V
- 9) Feeder

Line "C", 4.16 KV Circuit Breakers for:

- 1) Transformer
- 2) Bus Tie
- 3) Third High
- 4) Third High
- 5) Second High
- 6) First High
- 7) Low Service
- 8) Feeder

- C.9 Upgrade bus bracing 350 MVA if the analysis report shows the existing 250 MVA bus bracing are sufficient. The Dalecarlia WTP Fault Study Report stated the worst case at 5KV switchgear bus B with 34,676 A load (approximately equal to 250 MVA).

C.10 Asbestos

- C.10.1 The Contractor is warned that exposure to airborne asbestos has been associated with four diseases: lung cancer, certain gastrointestinal cancers, pleural or peritoneal mesothelioma and asbestosis. Studies indicate there are significantly increased health dangers to persons exposed to asbestos who smoke and further, to family members and other persons who become indirectly exposed as a result of the exposed worker bringing asbestos-laden work clothing home to be laundered.
- C.10.2 The Contractor is advised that friable and/or nonfriable asbestos is present in the arc-chutes of all circuit breakers that are to be replaced by this contract. Friable asbestos containing material means any material that contains more than 1 percent asbestos by weight that hand pressure can crumble, pulverize or reduce to powder when dry. Nonfriable asbestos containing materials do not release airborne asbestos fiber during routine handling and end-use. However, excessive fiber concentrations may be produced during uncontrolled abrading, sanding, drilling, cutting, machining, removal, demolition or other similar activities.
- C.10.3 The Contractor shall not in any way disturb asbestos on site. The asbestos present in the arc-shutes of the old circuit breakers shall be handled off site intact. Asbestos should then be disposed of in accordance with applicable Federal, State and local regulations.
- C.10.4 Care must be taken to avoid releasing or causing to be released, asbestos fibers into the atmosphere where they may be inhaled or ingested. The Occupational Safety and Health Administration (OSHA) has set standards at 29 CFR 1926.58 for exposure to airborne concentrations of asbestos fibers, methods of compliance, medical surveillance, housekeeping procedures and other measures that must be taken when working with or around asbestos containing materials which release airborne asbestos fibers at concentrations in excess of these established in 29 CFR 1926.58. The Environmental Protection Agency (EPA) has established standards at 40 Part 61, Subpart M for the control of asbestos emissions to the environment and the handling and disposal of asbestos wastes.
- C.10.5 When contract work activities are carried out in locations with the potential exists for exposure to airborne asbestos fibers or where asbestos waste will be generated, the Contractor shall assure that all measures necessary to provide effective protection to persons from exposure to asbestos fibers and prevention of contamination to property, materials, supplies, equipment and the internal and external environment are effectively instituted.
- C.10.6 As a minimum, the Contractor shall comply with the provisions of 29 CFR 1926.58, 40 CFR Part 61, Subpart M and 49 CFR 172.101, 172.200-204, 172.316, 173; any state implementing hazardous waste regulation that regulates asbestos as a hazardous waste under the Resource Conservation and Recovery Act (RCRA) requirements and any other applicable Federal, State, or local requirements.
- C.10.7 The Contractors shall provide an Accident Prevention Plan which fully addresses the following topics and, at the Contractor's option may include additional information as applicable.
- C.10.7.1 Medical Surveillance: (29 CFR 1926.58 (M)).
- C.10.7.2 Employee Training: Employees shall have training prior to beginning work in asbestos

containing material area(s) (20 CFR 1926.58 (K) and 29 CFR 1910.134).

C.10.7.3 Respiratory Protection: (29 CFR 1926.58 (H) and 29 CFR 1910.134).

C.10.7.4 Personal Protective Clothing and Equipment: (29 CFR 1926.58 (I) and (J)). The use of compressed air to remove asbestos from workers' clothing is prohibited. The Contractor shall specify the type of change room, wash facilities and laundering facilities as applicable.

C.10.7.5 Airborne Asbestos Monitoring: (29 CFR 1926.58 (F)). Specify the monitoring and analytical procedures to be used prior to, during and after completion of contract work in areas where asbestos containing materials are located. All asbestos monitoring shall be conducted under the guidance of an industrial hygienist certified by the American Board of Industrial Hygiene. Samples shall be analyzed by an American Industrial Hygiene Association (AIHA) accredited laboratory proficient in the analysis of asbestos containing material. Turn around time frame end of sampling period to review of results of analyses by Contractor shall be no longer than 72 hours.

C.10.7.6 Housekeeping: (29 CFR 1926.58 (1)). Dry sweeping of contract work area contaminated with asbestos containing material is prohibited. The Contractor shall specify methods and materials used to package asbestos containing waste and plan to control any accidental airborne release or spill of asbestos containing material.

C.10.7.7 Methods of Compliance: (29 CFR 1926.58 (G)). Contractor shall include procedures relating to engineering controls, local exhaust ventilation, particular tools to be used and work practices. Specify methods, materials and equipment to be used and work practices. Specify methods, materials and equipment to be used to prevent asbestos contamination to property, materials, supplies, and equipment and the internal and external environment during contract activities. Local exhaust ventilation equipment including power operated tools equipped with local exhaust ventilation shall conform with the Standards Fundamentals Governing the Design and Operations of Local Exhaust Systems ANSI Z9.2 latest revised edition. Describe the type of high-efficiency filtered (HEPA) vacuum cleaners that shall be used to vacuum asbestos containing materials. Describe methods and materials to be used to assure all asbestos containing material will be thoroughly wetted by use of wetting agent and water before removal and that airborne asbestos dust will be kept to minimum.

C.10.8 Methods of materials to be used to decontaminate any property, materials, supplies, equipment and the environment if asbestos contamination results. (20 CFR 1926.58 (G)).

C.10.9 Recordkeeping Procedures: (29 CFR 1926.58 (N) and 1920.20).

C.10.10 Specific description of type of packaging, marking and shipping conveyances to be used to transport asbestos containing waste from the generation point to a storage or disposal facility in compliance with Department of Transportation requirements. (49 CFR 172.101, 172.200-204, 176.316, 173).

C.10.11 Emergency procedures that would be taken in an accident or spill of asbestos containing material occurs during the transport of asbestos containing waste. (29 CFR 1926.58 (K)).

- C.10.12 Methods and equipment used to off load and bury asbestos containing waste to control airborne emissions at the burial site. (40 CFR 61.154).
- C.10.13 The Contractor shall complete and return to the Contracting Officer Representative within fifteen (15) working days after the completion of any airborne asbestos monitoring conducted under this contract, a "Summarization of Airborne Asbestos Sample Results" form provided by the Government. NOTE: This completed summarization form is to be used by the US Army Corps of Engineers for statistical information purposes and does not relieve the Contractor from his recordkeeping requirements as described in 29 CFR 1926.58 (N) and 1910.20.
- C.10.14 Landfill and Transporter Qualifications: Written evidence that the landfill for disposal is approved for asbestos by the USEPA and state regulatory agencies. Copies of signed agreements between the Contractor, and each subcontractor to include transporters and the asbestos waste disposal facility to accept and dispose of all asbestos containing waste generated during the performance of the contract. Qualification resumes of each subcontractor transporter to be used, indicating previous experience in transport and disposal of asbestos waste to include all required state and local waste hauler requirements for asbestos.
- C.10.15 Collection and Disposal of Asbestos: Asbestos containing equipment shall be placed in sealed leak-tight approved containers. Waste within the containers must be wetted in case the container is breached. A warning and Department of Transportation (DOT) label shall be affixed or preprinted on each container. Waste asbestos material shall be disposed of at an EPA, State and Local approved landfill off Government property. For temporary storage, sealed impermeable containers shall be stored in asbestos waste load-out unit or in a storage/transportation conveyance (i.e., dumpster, roll-off waste boxes, etc.) in a manner as accepted by and in an area as assigned by the Contracting Officer Representative. Procedure for hauling and disposal shall comply with 40 CFR 61, Subpart M, State, Regional, and Local Standards.
- C.10.15.1 Asbestos Waste Shipment Record: The Contractor shall complete and provide final completed copies of the Waste Shipment Record for all shipments of waste material as specified in 40 CFR 61, Subpart M and other required State waste manifest shipment records within 3 days of delivery to the landfill. A Certificate of Disposal should be provided to the Contracting Officer's Representative.
- C.11 Relay Upgrade and Door Replacement: Upgrade fifteen (15) pump feeders, two (2) MCC feeders and six (6) transformers/tie breakers with new controls switch, red and green light control, 8 pole breaker status auxiliary relays, and new multilin protective relay (750 relay for MCC and Transformers and 469 relay for pumps).
- C.11.1 The Contractor shall remove all twenty-three (23) existing doors and install new doors and terminate new door wire harness on existing terminal blocks with relays and control as follows:
- C.11.2 Pump Relay Doors:
- Fifteen (15) new ITE HV Relay Door design to match existing hinges.
 - Each door shall contain the following:
 - One (1) SB-1 GE breaker control switch type SB-1 (6-stage) or equal.
 - Two (2) Red and Green Pilot Lights
 - One (1) 8 pole Allen Bradley 700 DC or equal direct drive DC relay

with 20A contact rating.

- One (1) Multilin 469 Motor Protection Relay
- One (1) Factory wired and ready to terminate on existing terminal blocks.

C.11.3 MCC Feeders:

- Two (2) New ITE HV Relay and WDHP Door design to match existing hinges.
- Each door shall contain the following:
 - One (1) SB-1 GE breaker control switch GE type SB-1 (6-stage) or equal.
 - Two (2) Red and Green Pilot Lights.
 - One (1) 8 pole Allen Bradley 700 DC or equal direct drive DC relay with 20A contact rating.
 - One (1) Multilin 750 MCC Feeder Protection Relay
 - One (1) Factory wired and ready to terminate on existing terminal blocks.

C.11.4 Main/Tie and Transformer Feeder:

- Six (6) new ITE HV Relay and EDHP Door design to match existing hinges.
- Each door shall contain the following:
 - One (1) SB-1 GE breaker control switch GE Type SB-1 (6-stage) or equal.
 - Two (2) Red and Green Pilot Lights.
 - One (1) 8 pole Allen Bradley 700 DC, or equal, direct drive.
 - One (1) Multilin 750 MCC Main (XFMR) and tie protection relay.
 - One (1) Factory wired and ready to terminate on existing terminal blocks.

C.11.5 Multilin 469 motor protection and management shall be provided using a digital relay.

C.11.5.1 The primary protective function shall be the thermal mode. It shall consist of 4 key elements:

- Overload curves
- Negative sequence unbalance/single phase biasing.
- RTD biasing (hot/cold motor compensation).
- Motor cooling time constraints.

C.11.5.2 The motor protection device shall also include:

- Stall
- Mechanical Jam
- 12 RTD Input
- Ground Overcurrent
- Differential protection using CT inputs from both sides of the machine winding
- Voltage transformer inputs shall be used to provide over voltage, under voltage, voltage phase reversal, over frequency and under frequency junctions.

C.11.5.3 The motor management relay shall include complete power metering. An events record stores the last 40 events. Sixteen (16) cycles of waveform data shall be stored each time a trip occurs. A simulation feature shall be available for testing the relay.

C.11.5.4 The motor management interfaces shall include:

- A 40 character illuminated vacuum fluorescent display and associated key pad to provide access to actual values and set points.
- A front RS 232 serial port for set point programming.
- A RS485 serial port which shall use an open protocol with baud rates selectable up to 19,200 bps.
- An independent auxiliary RS 485 port shall be available for added security or

use by maintenance personnel.

- Interface software shall be provided in a windows format.
- The relay shall have a drawout construction to facilitate testing, maintenance and interchange flexibility.

C.11.5.5 The motor management CT primary shall have:

- 5000A, 25A for 50:0.025
- CT secondary shall have 1A or 5A (setpoint), 12.5 mA for 50:0.025
- Conversion range shall be 0.02 – 1 X CT primary amps.
- The accuracy shall be $\pm 0.5\%$ of 1 X CT for 5A or 1A.
- CT withstand shall be of 1 sec at 80 times rate current, 2 sec at 40 times rated current and continuous at 3 times rated current.

C.11.5.6 The motor management control power shall have LO/HI range:

- LO range for DC: 20 to 60 VDC
- LO range for AC: 20 to 48 VAC
- HI range for DC: 90 to 300 VDC
- HI range for AC: 70 to 265 VAC

C.11.5.7 The dimensions of motor management relay shall be of 8.52"W X 9.93"H X 8.80"D maximum.

C.11.6 Multilin 750 feeder management relay shall provide primary protection and management of distribution feeders. Protection shall include:

- Complete time overcurrent
- Complete instantaneous overcurrent
- Directional overcurrent
- Under voltage and over voltage
- Negative sequence voltage
- Under voltage automatic restoration
- Bus under frequency
- Under frequency automatic restoration

C.11.6.1 Multilin 750 feeder management relay control shall include:

- Manual close control
- Cold load pickup control
- 4 settings groups
- 20 programmable logic inputs
- 2 breaker control relay outputs
- 1 internal failure relay output
- 5 programmable relay outputs
- 1 solid state trip output
- 8 analog transduce outputs

C.11.6.1 The relay shall provide complete monitoring and metering functions. These shall include:

- A fault locator with a record of the last 10 faults.
- An event recorder with a record of the last 128 events.
- Waveform capture with storage of 128 cycles of data.

C.11.6.3 The 750 feeder management relay shall have a simulation feature to allow testing without the need for external voltage and current inputs.

C.11.6.4 The feeder management interfaces shall include:

- A 40 character display and a keypad.
- Indicator LEDs on the front panel which shall provide a quick visual indication of status.
- A front panel RS 232 serial port which shall provide easy computer access.
- Two rear RS 485 ports, one of which can be configured as a RS422 port.
- An easy to use pc program.

C.11.6.5 The dimensions of feeder management relay shall be of 8.52"WX9.93"HX8.80"D maximum.

C.11.6.6 The outputs shall be analog 4-20 mA and fully isolated.

C.11.6.7 The accuracy shall be $\pm 1\%$ of full scale.

C.11.7 All new relay door and relays shall be factory wired, mounting new relays and control. Existing doors are unacceptable. The wire harness shall be protected via DVC wrapped jackets.

C.11.8 All new relay doors shall be wired, rung out and tested. The controls shall be tested and demonstrated to work in accordance with stated specifications.

C.11.9 The Contractor shall provide and perform a relay coordination study to determine protection settings of relays. The Contractor shall limit this study from the 15 KV primary feeder through all 4.16 KV switchgear loads. The study shall be approved by a licensed professional engineer in the State of Maryland and stamped accordingly.

C.12 Warranty

C.12.1 All equipment provided under this contract shall be covered by at least two (2) year warranty from the day of the final acceptance after their installation to the Dalecarlia Pumping Station. Any replaced equipment will be covered by at least two (2) year warranty from the day of its final acceptance.

SECTION D

D.1 Preservation/Packaging/Packing

The Contractor's standard commercial practice will be acceptable for the Preservation, Packaging and Packing of the supplies called for in this contract provided that such preservation, packaging and packing adequately protect the supplies against corrosion, deterioration and physical damage during shipment from the source of supply to the shipping destination designated elsewhere in this contract.

SECTION E

E.1 INSPECTION AND ACCEPTANCE

Inspection and acceptance will be accomplished by the Contracting Officer’s Representative upon completion of work/services called for in this specification. The Contracting Officer’s Representative is:

Mr. David MacGregor
 Dalecarlia Water Treatment Plant
 5900 MacArthur Boulevard, N.W.
 Washington, DC 20016-2514
 202-764-2799

Acceptance will be based on inspection of equipment upon delivery and successful completion of tests after installation, for all new equipment to ensure proper operation.

SECTION F

DELIVERIES AND PERFORMANCE

F.1 Contract Period:

The Contractor shall commence under this contract within 30 calendar days after date of award, complete delivery of hardware within 90 days after date of award and complete installation, connection and testing of all material and equipment specified herein not later than 180 calendar days from date of award.

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001	ELECTRICAL UPGRADE DALECARLIA PUMPNG STA FFP CONTRACTOR SHALL FURNISH ALL LABOR, MATERIAL, SUPPLIES AND EQUIPMENT NECESSARY TO PROVIDE CIRCUIT BREAKERS TO BE DELIVERED AND INSTALLED IN STRICT ACCORDANCE WITH THE ENCLOSED SPECIFICATIONS AT THE DALECARLIA PUMPING STATION, WASHINGTON AQUEDUCT DIVISION, WASHINGTON, DC. IT IS VERY IMPORTANT THAT THE DELIVERY REQUIREMENTS BE MET FOR THIS REQUIREMENT. P.O.C.: PATRICIA GAMBY (202)764-2639/DAVID MACGREGOR (202)764-2799, WAD P.O.C.: RANDY HILL (202)764-2727, CONTRACTING P.O.C.: JACKIE HENDERSON (410)962-3529 PURCHASE REQUEST NUMBER: 96311M-3090-3744	1	Lump Sum	\$728,333.00	\$728,333.00
				NET AMT	\$728,333.00
ACRN AB Funded Amount					\$728,333.00

FOB: Destination

INSPECTION AND ACCEPTANCE TERMS

Supplies/services will be inspected/accepted at:

CLIN	INSPECT AT	INSPECT BY	ACCEPT AT	ACCEPT BY
0001	N/A	N/A	N/A	Government

DELIVERY INFORMATION

CLIN	DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	UIC
0001	19-NOV-2003	1	PLANNING & ENGR BRANCH DAVID MACGREGOR 5900 MACARTHUR BLVD NW WASHINGTON DC 20315-0220 (202) 764-2799 FOB: Destination	E250700

ACCOUNTING AND APPROPRIATION DATA

AB: 99X98290000 082471 2520001SZV008273 NA 96499
 AMOUNT: \$728,333.00

CLAUSES INCORPORATED BY REFERENCE

52.203-3	Gratuities	APR 1984
52.203-6 Alt I	Restrictions On Subcontractor Sales To The Government (Jul 1995) -- Alternate I	OCT 1995
52.204-4	Printed or Copied Double-Sided on Recycled Paper	AUG 2000
52.209-6	Protecting the Government's Interest When Subcontracting With Contractors Debarred, Suspended, or Proposed for Debarment	JUL 1995
52.211-17	Delivery of Excess Quantities	SEP 1989
52.212-4	Contract Terms and Conditions--Commercial Items	FEB 2002
52.212-5 (Dev)	Contract Terms and Conditions Required to Implement Statutes or Executive Orders--Commercial Items (Deviation)	APR 2001
52.219-3	Notice of Total HUBZone Set-Aide	JAN 1999

52.219-6	Notice Of Total Small Business Set-Aside	JUL 1996
52.219-6 Alt I	Notice of Total Small Business Set-Aside (Jul 1996) - Alternate I	OCT 1995
52.219-8	Utilization of Small Business Concerns	OCT 2000
52.219-14	Limitations On Subcontracting	DEC 1996
52.222-3	Convict Labor	AUG 1996
52.222-21	Prohibition Of Segregated Facilities	FEB 1999
52.222-26	Equal Opportunity	APR 2002
52.222-35	Equal Opportunity For Special Disabled Veterans, Veterans of the Vietnam Era and Other Eligible Veterans	DEC 2001
52.222-36	Affirmative Action For Workers With Disabilities	JUN 1998
52.222-37	Employment Reports On Special Disabled Veterans, Veterans Of The Vietnam Era and Other Eligible Veterans	DEC 2001
52.222-41	Service Contract Act Of 1965, As Amended	MAY 1989
52.222-42	Statement Of Equivalent Rates For Federal Hires	MAY 1989
52.223-11	Ozone-Depleting Substances	MAY 2001
52.225-13	Restrictions on Certain Foreign Purchases	JUL 2000
52.227-2	Notice And Assistance Regarding Patent And Copyright Infringement	AUG 1996
52.232-33	Payment by Electronic Funds Transfer--Central Contractor Registration	MAY 1999
52.233-3	Protest After Award	AUG 1996
52.237-3	Continuity Of Services	JAN 1991
52.242-13	Bankruptcy	JUL 1995
52.242-15	Stop-Work Order	AUG 1989
52.243-5	Changes and Changed Conditions	APR 1984
52.246-1	Contractor Inspection Requirements	APR 1984
52.247-34	F.O.B. Destination	NOV 1991
52.252-2	Clauses Incorporated By Reference	FEB 1998
52.253-1	Computer Generated Forms	JAN 1991
252.204-7003	Control Of Government Personnel Work Product	APR 1992
252.204-7004	Required Central Contractor Registration	NOV 2001
252.205-7000	Provisions Of Information To Cooperative Agreement Holders	DEC 1991
252.209-7004	Subcontracting With Firms That Are Owned or Controlled By The Government of a Terrorist Country	MAR 1998
252.212-7001 (Dev)	Contract Terms and Conditions Required to Implement Statutes or Executive Orders Applicable to Defense Acquisitions of Commercial Items (Deviation)	APR 2001
252.219-7011	Notification to Delay Performance	JUN 1998
252.225-7001	Buy American Act And Balance Of Payments Program	MAR 1998
252.225-7002	Qualifying Country Sources As Subcontractors	DEC 1991
252.225-7009	Duty-Free Entry--Qualifying Country Supplies (End Products and Components)	AUG 2000
252.225-7012	Preference For Certain Domestic Commodities	APR 2002
252.225-7016	Restriction On Acquisition Of Ball and Roller Bearings	DEC 2000
252.243-7001	Pricing Of Contract Modifications	DEC 1991
252.243-7002	Requests for Equitable Adjustment	MAR 1998
252.246-7000	Material Inspection And Receiving Report	DEC 1991
252.247-7023	Transportation of Supplies by Sea	MAY 2002
252.247-7024	Notification Of Transportation Of Supplies By Sea	MAR 2000

WAGE DETERMINATION DECISION

WAGE DETERMINATION DECISION
OF THE SECRETARY OF LABOR

The following wage determination will be used to conform With the requirements of the Service Contract Act of 1965 (29 CFR 4) of the General Provisions:

Decision No. 94-2103 (Rev. 28) dated 4 October 2002

State(s): District of Columbia, Maryland, Virginia
Areas: Maryland COUNTIES of Calvert, Charles, Frederick, Montgomery, Prince George's, St. Mary's.
Virginia COUNTIES of Arlington, Fairfax, Fauquier, King George, Loudoun, Prince William, Stafford, Alexandria, Falls Church

WAGE DETERMINATION NO: 94-2103 REV (28) AREA: DC,DISTRICT-WIDE

WAGE DETERMINATION NO: 94-2103 REV (28) AREA: DC,DISTRICT-WIDE
REGISTER OF WAGE DETERMINATIONS UNDER | U.S. DEPARTMENT OF LABOR
FOR OFFICIAL USE ONLY BY FEDERAL AGENCIES PARTICIPATING IN MOU WITH DOL

WASHINGTON D.C. 20210

William W.Gross
Director

Division of
Wage Determinations

Wage Determination No.: 1994-2103
Revision No.: 28
Date Of Last Revision: 10/04/2002

States: District of Columbia, Maryland, Virginia
Area: District of Columbia Statewide
Maryland Counties of Calvert, Charles, Frederick, Montgomery, Prince George's, St Mary's
Virginia Counties of Alexandria, Arlington, Fairfax, Falls Church, Fauquier, King George, Loudoun, Prince William, Stafford

****Fringe Benefits Required Follow the Occupational Listing****

OCCUPATION TITLE	MINIMUM WAGE RATE
Administrative Support and Clerical Occupations	
Accounting Clerk I	10.16
Accounting Clerk II	11.88
Accounting Clerk III	14.04
Accounting Clerk IV	16.37
Court Reporter	14.94
Dispatcher, Motor Vehicle	14.63
Document Preparation Clerk	11.29
Duplicating Machine Operator	11.29
Film/Tape Librarian	14.65
General Clerk I	11.68
General Clerk II	13.72
General Clerk III	15.32
General Clerk IV	18.74
Housing Referral Assistant	17.82
Key Entry Operator I	10.40
Key Entry Operator II	11.62
Messenger (Courier)	9.30
Order Clerk I	14.74
Order Clerk II	16.29
Personnel Assistant (Employment) I	13.05
Personnel Assistant (Employment) II	14.24
Personnel Assistant (Employment) III	16.42
Personnel Assistant (Employment) IV	19.60
Production Control Clerk	17.28
Rental Clerk	15.42
Scheduler, Maintenance	14.06
Secretary I	14.71
Secretary II	15.35
Secretary III	18.49
Secretary IV	19.57
Secretary V	22.79
Service Order Dispatcher	14.04
Stenographer I	14.68
Stenographer II	16.47
Supply Technician	19.57
Survey Worker (Interviewer)	14.94
Switchboard Operator-Receptionist	10.96
Test Examiner	15.35
Test Proctor	15.35
Travel Clerk I	11.63
Travel Clerk II	12.49
Travel Clerk III	13.41
Word Processor I	11.80
Word Processor II	14.22
Word Processor III	16.65
Automatic Data Processing Occupations	
Computer Data Librarian	11.69
Computer Operator I	13.30

Computer Operator II	15.67
Computer Operator III	18.60
Computer Operator IV	18.94
Computer Operator V	22.94
Computer Programmer I (1)	19.64
Computer Programmer II (1)	23.05
Computer Programmer III (1)	26.99
Computer Programmer IV (1)	27.62
Computer Systems Analyst I (1)	26.99
Computer Systems Analyst II (1)	27.62
Computer Systems Analyst III (1)	27.62
Peripheral Equipment Operator	14.06
Automotive Service Occupations	
Automotive Body Repairer, Fiberglass	21.38
Automotive Glass Installer	17.03
Automotive Worker	17.03
Electrician, Automotive	18.05
Mobile Equipment Servicer	14.94
Motor Equipment Metal Mechanic	19.03
Motor Equipment Metal Worker	17.03
Motor Vehicle Mechanic	19.11
Motor Vehicle Mechanic Helper	16.01
Motor Vehicle Upholstery Worker	17.03
Motor Vehicle Wrecker	17.03
Painter, Automotive	18.05
Radiator Repair Specialist	17.03
Tire Repairer	14.43
Transmission Repair Specialist	19.03
Food Preparation and Service Occupations	
Baker	11.87
Cook I	10.41
Cook II	11.87
Dishwasher	8.76
Food Service Worker	9.01
Meat Cutter	16.07
Waiter/Waitress	8.17
Furniture Maintenance and Repair Occupations	
Electrostatic Spray Painter	18.05
Furniture Handler	12.55
Furniture Refinisher	18.05
Furniture Refinisher Helper	13.85
Furniture Repairer, Minor	16.01
Upholsterer	18.05
General Services and Support Occupations	
Cleaner, Vehicles	9.67
Elevator Operator	9.79
Gardener	12.98
House Keeping Aid I	9.02
House Keeping Aid II	9.28
Janitor	9.64
Laborer, Grounds Maintenance	10.75
Maid or Houseman	9.28
Pest Controller	11.85
Refuse Collector	10.88
Tractor Operator	12.73
Window Cleaner	10.51
Health Occupations	
Dental Assistant	14.36
Emergency Medical Technician (EMT)/Paramedic/Ambulance Driver	11.95
Licensed Practical Nurse I	14.43
Licensed Practical Nurse II	16.20
Licensed Practical Nurse III	18.13
Medical Assistant	11.76
Medical Laboratory Technician	13.93
Medical Record Clerk	13.57
Medical Record Technician	14.21

Nursing Assistant I	8.46
Nursing Assistant II	9.52
Nursing Assistant III	11.94
Nursing Assistant IV	13.40
Pharmacy Technician	11.84
Phlebotomist	11.21
Registered Nurse I	22.54
Registered Nurse II	25.08
Registered Nurse II, Specialist	25.08
Registered Nurse III	32.38
Registered Nurse III, Anesthetist	32.38
Registered Nurse IV	38.81
Information and Arts Occupations	
Audiovisual Librarian	18.95
Exhibits Specialist I	16.79
Exhibits Specialist II	20.99
Exhibits Specialist III	25.84
Illustrator I	17.03
Illustrator II	21.29
Illustrator III	26.20
Librarian	22.33
Library Technician	15.03
Photographer I	13.93
Photographer II	15.64
Photographer III	19.56
Photographer IV	24.08
Photographer V	26.50
Laundry, Dry Cleaning, Pressing and Related Occupations	
Assembler	8.71
Counter Attendant	8.71
Dry Cleaner	9.83
Finisher, Flatwork, Machine	8.71
Presser, Hand	8.71
Presser, Machine, Drycleaning	8.71
Presser, Machine, Shirts	8.71
Presser, Machine, Wearing Apparel, Laundry	8.71
Sewing Machine Operator	10.63
Tailor	12.43
Washer, Machine	9.31
Machine Tool Operation and Repair Occupations	
Machine-Tool Operator (Toolroom)	18.05
Tool and Die Maker	21.95
Material Handling and Packing Occupations	
Forklift Operator	14.58
Fuel Distribution System Operator	19.38
Material Coordinator	16.97
Material Expediter	16.97
Material Handling Laborer	11.50
Order Filler	13.21
Production Line Worker (Food Processing)	12.80
Shipping Packer	12.21
Shipping/Receiving Clerk	13.09
Stock Clerk (Shelf Stocker; Store Worker II)	12.69
Store Worker I	8.89
Tools and Parts Attendant	16.99
Warehouse Specialist	15.01
Mechanics and Maintenance and Repair Occupations	
Aircraft Mechanic	21.95
Aircraft Mechanic Helper	14.51
Aircraft Quality Control Inspector	23.11
Aircraft Servicer	16.78
Aircraft Worker	17.84
Appliance Mechanic	18.05
Bicycle Repairer	14.43
Cable Splicer	20.93
Carpenter, Maintenance	18.05

Carpet Layer	17.61
Electrician, Maintenance	22.59
Electronics Technician, Maintenance I	16.08
Electronics Technician, Maintenance II	20.88
Electronics Technician, Maintenance III	22.73
Fabric Worker	15.76
Fire Alarm System Mechanic	19.03
Fire Extinguisher Repairer	14.94
Fuel Distribution System Mechanic	20.93
General Maintenance Worker	16.46
Heating, Refrigeration and Air Conditioning Mechanic	19.03
Heavy Equipment Mechanic	19.03
Heavy Equipment Operator	19.31
Instrument Mechanic	19.03
Laborer	10.70
Locksmith	18.05
Machinery Maintenance Mechanic	20.51
Machinist, Maintenance	21.52
Maintenance Trades Helper	13.85
Millwright	19.24
Office Appliance Repairer	18.05
Painter, Aircraft	20.76
Painter, Maintenance	18.05
Pipefitter, Maintenance	19.04
Plumber, Maintenance	18.05
Pneudraulic Systems Mechanic	19.03
Rigger	19.03
Scale Mechanic	17.03
Sheet-Metal Worker, Maintenance	19.03
Small Engine Mechanic	20.05
Telecommunication Mechanic I	19.41
Telecommunication Mechanic II	20.45
Telephone Lineman	20.93
Welder, Combination, Maintenance	19.03
Well Driller	19.03
Woodcraft Worker	19.03
Woodworker	15.32
Miscellaneous Occupations	
Animal Caretaker	8.97
Carnival Equipment Operator	11.11
Carnival Equipment Repairer	11.97
Carnival Worker	7.48
Cashier	8.53
Desk Clerk	9.78
Embalmer	19.04
Lifeguard	9.67
Mortician	21.63
Park Attendant (Aide)	12.15
Photofinishing Worker (Photo Lab Tech., Darkroom Tech)	9.03
Recreation Specialist	15.94
Recycling Worker	14.06
Sales Clerk	10.04
School Crossing Guard (Crosswalk Attendant)	10.34
Sport Official	11.24
Survey Party Chief (Chief of Party)	14.92
Surveying Aide	9.27
Surveying Technician (Instr. Person/Surveyor Asst./Instr.)	14.18
Swimming Pool Operator	13.21
Vending Machine Attendant	10.20
Vending Machine Repairer	13.24
Vending Machine Repairer Helper	10.77
Personal Needs Occupations	
Child Care Attendant	11.37
Child Care Center Clerk	15.86
Chore Aid	8.05
Homemaker	16.45

Plant and System Operation Occupations	
Boiler Tender	20.85
Sewage Plant Operator	19.15
Stationary Engineer	20.85
Ventilation Equipment Tender	13.85
Water Treatment Plant Operator	19.72
Protective Service Occupations	
Alarm Monitor	15.04
Corrections Officer	17.69
Court Security Officer	18.84
Detention Officer	18.29
Firefighter	19.72
Guard I	9.51
Guard II	12.53
Police Officer	20.54
Stevedoring/Longshoremen Occupations	
Blocker and Bracer	16.46
Hatch Tender	15.74
Line Handler	15.74
Stevedore I	15.47
Stevedore II	17.45
Technical Occupations	
Air Traffic Control Specialist, Center (2)	28.96
Air Traffic Control Specialist, Station (2)	19.97
Air Traffic Control Specialist, Terminal (2)	21.99
Archeological Technician I	14.57
Archeological Technician II	16.29
Archeological Technician III	20.20
Cartographic Technician	22.73
Civil Engineering Technician	19.56
Computer Based Training (CBT) Specialist/ Instructor	23.94
Drafter I	12.22
Drafter II	15.30
Drafter III	17.18
Drafter IV	21.49
Engineering Technician I	15.50
Engineering Technician II	17.99
Engineering Technician III	21.63
Engineering Technician IV	24.82
Engineering Technician V	30.35
Engineering Technician VI	36.72
Environmental Technician	19.29
Flight Simulator/Instructor (Pilot)	27.76
Graphic Artist	20.36
Instructor	23.34
Laboratory Technician	15.98
Mathematical Technician	23.39
Paralegal/Legal Assistant I	16.71
Paralegal/Legal Assistant II	21.31
Paralegal/Legal Assistant III	26.07
Paralegal/Legal Assistant IV	31.54
Photooptics Technician	21.06
Technical Writer	23.99
Unexploded (UXO) Safety Escort	18.40
Unexploded (UXO) Sweep Personnel	18.40
Unexploded Ordnance (UXO) Technician I	18.40
Unexploded Ordnance (UXO) Technician II	22.27
Unexploded Ordnance (UXO) Technician III	26.69
Weather Observer, Combined Upper Air and Surface Programs (3)	16.64
Weather Observer, Senior (3)	19.38
Weather Observer, Upper Air (3)	16.64
Transportation/ Mobile Equipment Operation Occupations	
Bus Driver	15.09
Parking and Lot Attendant	8.62
Shuttle Bus Driver	12.94
Taxi Driver	10.60

Truckdriver, Heavy Truck	17.52
Truckdriver, Light Truck	11.78
Truckdriver, Medium Truck	14.97
Truckdriver, Tractor-Trailer	17.52

ALL OCCUPATIONS LISTED ABOVE RECEIVE THE FOLLOWING BENEFITS:
 HEALTH & WELFARE: \$2.15 an hour or \$86.00 a week or \$372.67 a month

VACATION: 2 weeks paid vacation after 1 year of service with a contractor or successor; 3 weeks after 5 years, and 4 weeks after 15 years. Length of service includes the whole span of continuous service with the present contractor or successor, wherever employed, and with the predecessor contractors in the performance of similar work at the same Federal facility. (Reg. 29 CFR 4.173)

HOLIDAYS: A minimum of ten paid holidays per year: New Year's Day, Martin Luther King Jr.'s Birthday, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day, and Christmas Day. (A contractor may substitute for any of the named holidays another day off with pay in accordance with a plan communicated to the employees involved.) (See 29 CFR 4.174)

THE OCCUPATIONS WHICH HAVE PARENTHESES AFTER THEM RECEIVE THE FOLLOWING BENEFITS (as numbered):

1) Does not apply to employees employed in a bona fide executive, administrative, or professional capacity as defined and delineated in 29 CFR 541. (See CFR 4.156)

2) APPLICABLE TO AIR TRAFFIC CONTROLLERS ONLY - NIGHT DIFFERENTIAL: An employee is entitled to pay for all work performed between the hours of 6:00 P.M. and 6:00 A.M. at the rate of basic pay plus a night pay differential amounting to 10 percent of the rate of basic pay.

3) WEATHER OBSERVERS - NIGHT PAY & SUNDAY PAY: If you work at night as part of a regular tour of duty, you will earn a night differential and receive an additional 10% of basic pay for any hours worked between 6pm and 6am. If you are a full-time employed (40 hours a week) and Sunday is part of your regularly scheduled workweek, you are paid at your rate of basic pay plus a Sunday premium of 25% of your basic rate for each hour of Sunday work

which is not overtime (i.e. occasional work on Sunday outside the normal tour of duty is considered overtime work).

HAZARDOUS PAY DIFFERENTIAL: An 8 percent differential is applicable to employees employed in a position that represents a high degree of hazard when working with or in close proximity to ordnance, explosives, and incendiary materials. This includes work such as screening, blending, dying, mixing, and pressing of sensitive ordnance, explosives, and pyrotechnic compositions such as lead azide, black powder and photoflash powder. All dry-house activities involving propellants or explosives. Demilitarization, modification, renovation, demolition, and maintenance operations on sensitive ordnance, explosives and incendiary materials. All operations involving regrading and cleaning of artillery ranges.

A 4 percent differential is applicable to employees employed in a position that represents a low degree of hazard when working with, or in close proximity to ordnance, (or employees possibly adjacent to) explosives and incendiary materials which involves potential injury such as laceration of hands, face, or arms of the employee engaged in the operation, irritation of the skin, minor burns and the like; minimal damage to immediate or adjacent work area or equipment being used. All operations involving, unloading, storage, and hauling of ordnance, explosive, and incendiary ordnance material other than small arms ammunition. These differentials are only applicable to work that has been specifically designated by the agency for ordnance, explosives, and incendiary material differential pay.

**** UNIFORM ALLOWANCE ****

If employees are required to wear uniforms in the performance of this contract (either by the terms of the Government contract, by the employer, by the state or local law, etc.), the cost of furnishing such uniforms and maintaining (by laundering or dry cleaning) such uniforms is an expense that may not be borne by an employee where such cost reduces the hourly rate below that required by the wage determination. The

Department of Labor will accept payment in accordance with the following standards as compliance:

The contractor or subcontractor is required to furnish all employees with an adequate number of uniforms without cost or to reimburse employees for the actual cost of the uniforms. In addition, where uniform cleaning and maintenance is made the responsibility of the employee, all contractors and subcontractors subject to this wage determination shall (in the absence of a bona fide collective bargaining agreement providing for a different amount, or the furnishing of contrary affirmative proof as to the actual cost), reimburse all employees for such cleaning and maintenance at a rate of \$3.35 per week (or \$.67 cents per day). However, in those instances where the uniforms furnished are made of "wash and wear" materials, may be routinely washed and dried with other personal garments, and do not require any special treatment such as dry cleaning, daily washing, or commercial laundering in order to meet the cleanliness or appearance standards set by the terms of the Government contract, by the contractor, by law, or by the nature of the work, there is no requirement that employees be reimbursed for uniform maintenance costs.

**** NOTES APPLYING TO THIS WAGE DETERMINATION ****

Source of Occupational Title and Descriptions:

The duties of employees under job titles listed are those described in the "Service Contract Act Directory of Occupations," Fourth Edition, January 1993, as amended by the Third Supplement, dated March 1997, unless otherwise indicated. This publication may be obtained from the Superintendent of Documents, at 202-783-3238, or by writing to the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Copies of specific job descriptions may also be obtained from the appropriate contracting officer.

REQUEST FOR AUTHORIZATION OF ADDITIONAL CLASSIFICATION AND WAGE RATE {Standard Form 1444

(SF 1444)}

Conformance Process:

The contracting officer shall require that any class of service employee which is not listed herein and which is to be employed under the contract (i.e., the work to be performed is not performed by any classification listed in the wage determination), be classified by the contractor so as to provide a reasonable relationship (i.e., appropriate level of skill comparison) between such unlisted classifications and the classifications listed in the wage determination. Such conformed classes of employees shall be paid the monetary wages and furnished the fringe benefits as are determined. Such conforming process shall be initiated by the contractor prior to the performance of contract work by such unlisted class(es) of employees. The conformed classification, wage rate, and/or fringe benefits shall be retroactive to the commencement date of the contract. {See Section 4.6 ©(vi)} When multiple wage determinations are included in a contract, a separate SF 1444 should be prepared for each wage determination to which a class(es) is to be conformed.

The process for preparing a conformance request is as follows:

- 1) When preparing the bid, the contractor identifies the need for a conformed occupation) and computes a proposed rate).
- 2) After contract award, the contractor prepares a written report listing in order proposed classification title), a Federal grade equivalency (FGE) for each proposed classification), job description), and rationale for proposed wage rate), including information regarding the agreement or disagreement of the authorized representative of the employees involved, or where there is no authorized representative, the employees themselves. This report should be submitted to the contracting officer no later than 30 days after such unlisted class(es) of employees performs any contract work.
- 3) The contracting officer reviews the proposed action and promptly submits a report of the action, together with the agency's recommendations and pertinent information including the position of the contractor and the employees, to the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, for review. (See section 4.6(b)(2) of Regulations 29 CFR Part 4).
- 4) Within 30 days of receipt, the Wage and Hour Division approves, modifies, or disapproves the action via transmittal to the agency contracting officer, or notifies the contracting

officer that additional time will be required to process the request.

- 5) The contracting officer transmits the Wage and Hour decision to the contractor.
- 6) The contractor informs the affected employees.

Information required by the Regulations must be submitted on SF 1444 or bond paper.

When preparing a conformance request, the "Service Contract Act Directory of Occupations" (the Directory) should be used to compare job definitions to insure that duties requested are not performed by a classification already listed in the wage determination. Remember, it is not the job title, but the required tasks that determine whether a class is included in an established wage determination. Conformances may not be used to artificially split, combine, or subdivide classifications listed in the wage determination.