

THE WATER SOFTENERS USED IN THIS PROJECT ARE A PROPRIETARY ITEM.
NOTWITHSTANDING ANY OTHER PROVISION OF THIS CONTRACT, NO OTHER PRODUCT
WILL BE ACCEPTABLE.

DEPARTMENT OF THE NAVY

ATLANTIC DIVISION, NAVAL FACILITIES ENGINEERING COMMAND

NAVAL STATION, NORFOLK, VIRGINIA

NOTICE:

N62470-82-B-2349

Bids to be opened at 2:00 p.m.

12 APR 1983

NAVFAC
SPECIFICATION
No. 05-82-2349

at the office of the
Officer in Charge of Construction
Jacksonville, North Carolina Area
Building 1005, Marine Corps Base
Camp Lejeune, North Carolina 28542

Appropriation: OMMC

REPLACE WATER SOFTENERS AND ASSOCIATED PIPING
BUILDING 20

AT THE

MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

(HQMC Project LE 220M)

DESIGN BY:

Atlantic Division
Naval Facilities Engineering Command
Norfolk, Virginia 23511

SPECIFICATION PREPARED BY:

Civil-Structural: R.G. Schirmer, P.E. Date: 14 July 1982
Architect: C. Tennefoss, R.A.

SPECIFICATION APPROVED BY:

Specification Branch Head: *CRR* C.R. Rose, P.E.
Design Director: *JMD* J.M. Davis, P.E.
For EFD for Commander, NAVFAC: *[Signature]*
Date: 27 August 1982

*Review & Return
to MSCSS
[Signature]*

12 APR 1983

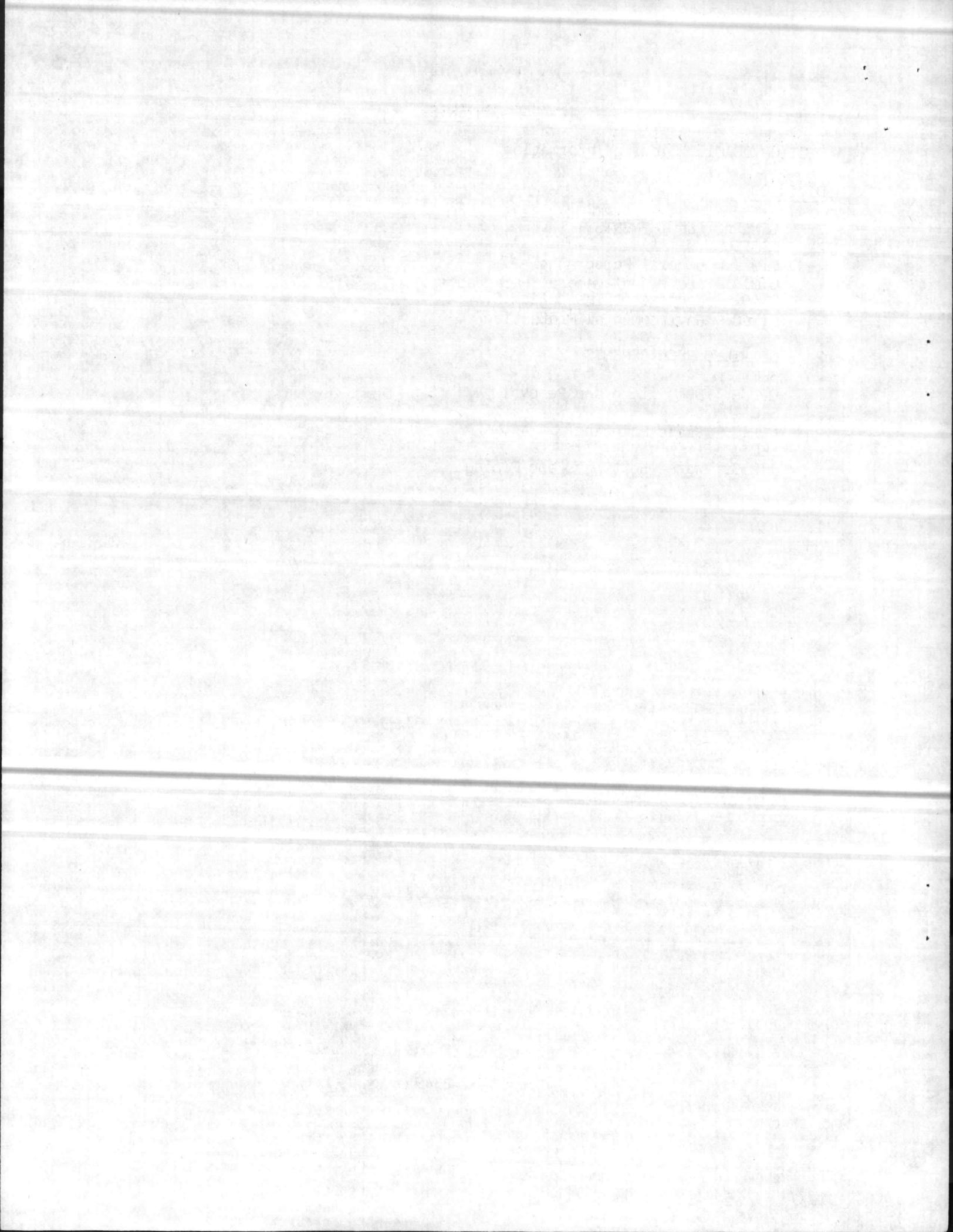
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SECTION 00101
BIDDING INFORMATION

1. CONTENTS: This Invitation for Bids, IFB NO.N62470-82-B-2349, consists of the following documents:

(a) Bid Instruction Documents

- (i) Invitation for Bids (Standard Form 20, January 1961 Ed.)
- (ii) Bidding Information
- (iii) Instructions to Bidders, dated March 1979

(b) Bid Submittal Documents

- (i) Bid Form (Standard Form 21, December 1965 Ed.)
- (ii) Representations and Certifications, Standard Form 19-B, June 1976 Ed. (REV 1980 AUG), including Appendix "A", dated August 1980
- (iii) Bid Guaranty (Standard Form 24, June 1964 Ed.)
(See Instructions to Bidders)

(c) Contract Documents

- (i) Construction Contract (Standard Form 23, Jan 1961 Ed.)
- (ii) Performance Bond (Standard Form 25, June 1967 Ed.)
- (iii) Payment Bond (Standard Form 25A, June 1964 Ed.)
- (iv) Labor Standards Provisions, dated November 1979
- (v) General Provisions dated March 1981 (Rev 12/81)
 - a. Clause 43. ACCIDENT PREVENTION (1977 Jun): Change the date of the Corps of Engineers Manual, EM 385-1-1, from "1 June 1977" to "1 April 1981"
- (vi) NAVFAC Specification No. 05-82-2349
- (vii) Drawings identified in Section 01011 of the specification
- (viii) Wage Determination Decision No. NC81-1201 for Building Construction

BIDS:

2.1 Instructions to Bidders: Instructions to Bidders and Invitation for Bids, Standard Form 20, January 1961 edition, shall be observed in the preparation of bids. Bidders shall affix their names and return addresses in the upper left corner of bid envelope. Envelopes containing bids must be sealed.

2.2 Bid Guaranty: A bid guaranty will be required as stipulated in the Instructions to Bidders.

2.3 Items of Bids: Bids shall be submitted in duplicate on Standard Form 21, Bid Form, and shall be accompanied by Standard Form 19B, Representations and Certifications, with Appendix "A" and by Bid Guaranty, all in accordance with the Bid Instruction Documents listed in paragraph 1(a) hereinbefore upon the following item:

BASE BID: Price for the entire work, complete in accordance with the drawings and specifications.

2.4 TELEGRAPHIC MODIFICATIONS OF BIDS in accordance with the instructions to bidders may be made. Two signed copies of the telegram in a sealed envelope marked "Copies of telegraphic modification of bid for REPLACE WATER SOFTENERS AND ASSOCIATED PIPING, BUILDING 20, Specification No. 05-82-2349" should be forwarded immediately to the office to which written bids were submitted.

2.5 TELEGRAPHIC MODIFICATIONS OR WITHDRAWAL OF BIDS will be considered as specified herein. TELEPHONIC RECEIPT OF TELEGRAPHIC MODIFICATIONS OR WITHDRAWAL OF BIDS WILL NOT QUALIFY THE TELEGRAM AS TIMELY. The telegram must be received at the place specified for receipt of bids prior to the exact time set for receipt of bids.

2.6 HAND DELIVERED BIDS: All hand delivered bids must be deposited with personnel in the Contract Branch, Room No. 26, Building 1005, Marine Corps Base, Camp Lejeune, North Carolina 28542, prior to the time and date set for bid opening. Any bids submitted by hand after the time set for receipt will not be accepted.

3. PRE-BID SITE VISITATION: To inspect the site of the work prior to bid opening, prior appointment must be made with the Officer in Charge of Construction, Jacksonville, North Carolina Area, telephone 919-451-2581. Bidders are urged and expected to inspect the site where the services are to be performed and to satisfy themselves as to all general and local conditions that may affect the cost of performance of the contract to the extent such information is reasonably obtainable. In no event will a failure to inspect the site constitute grounds for withdrawal of a bid after opening or for a claim after award of the contract.

4. CONTROLLED MATERIALS DATA: The Contracting Officer will issue a D0-C2 priority rating for procurement of critical materials. See General Provision entitled "PRIORITIES, ALLOCATIONS AND ALLOTMENTS".

5. INQUIRIES:

5.1 Plans and Specifications: Questions regarding the plans and specifications occurring prior to bid opening shall be presented to the Public Works Design Division, Building 1005, Marine Corps Base, Camp Lejeune, North Carolina 28542, telephone 919-451-5507. Questions requiring interpretation of drawings and specifications must be submitted at least ten days before bid opening. Interpretations or modifications to specifications made as a result of questions will be made by amendment only, and unless so done, all bidders should base their bids on the plans and specifications as issued.

5.2 Bidding Procedures: All questions concerning the bidding procedures shall be presented to OICC-ROICC Contract Branch, Room 26, Building 1005, Marine Corps Base, Camp Lejeune, North Carolina, telephone 919-451-2581.

6. AVAILABILITY OF SPECIFICATIONS, STANDARDS AND DESCRIPTIONS (1977 JUN): Specifications, standards and descriptions cited in this solicitation are available as indicated below:

a. Unclassified Federal, Military and Other Specifications and Standards (Excluding Commercial), and Data Item Descriptions: Submit request on DD Form 1425 (Specifications and Standards Requisition) to:

Commanding Officer
U. S. Naval Publications and Forms Center
5801 Tabor Avenue, Philadelphia, Pennsylvania 19120

The Acquisition Management Systems and Data Requirements Control List: DOD Directive 5000.19L, Volume II, may be ordered on the DD Form 1425. The Department of Defense Index of Specifications and Standards (DODISS) may be purchased from the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402. When requesting a specification or standard, the request shall indicate the title, number, date and any applicable amendment thereto by number and date. When requesting a data item description, the request shall cite the solicitation. When DD Form 1425 is not available, the request may be submitted in letter form, giving the same information as listed above, and the solicitation or contract number involved. Such request may also be made to the activity by TELEX No. 834295, Western Union No. 710-670-1685, or telephone 215-697-3321 in case of urgency.

b. Commercial Specifications, Standards and Descriptions: These specifications, standards and descriptions are not available from Government sources. They may be obtained from the publishers.

c. Availability for Examination of Specifications, Standards, Plans, Drawings, and other Pertinent Documents: The specifications, standards, plans, drawings, and other pertinent documents cited in this solicitation may be examined at the following location:

Public Works Division
Specifications and Estimates Section
Building 1005, Marine Corps Base
Camp Lejeune, North Carolina

7. RECOVERED MATERIAL: The Contractor certifies by signing this bid/proposal/quotation that recovered materials as defined in DAR 1-2500.4 will be used as required by the applicable publications.

8. REFERENCE TO AMENDMENTS: Each bidder shall refer in his bid to all amendments to this specification; failure to do so may constitute an informality in the bid.

9. CERTIFICATE OF CURRENT COST OR PRICING DATA: (This paragraph applies to negotiated contracts of \$100,000 or more, except where the price is based on adequate competition, and to change orders of \$100,000 or more, to any contract.) The Contractor shall submit to the Contracting Officer a certificate in the form set forth below as soon as practicable after agreement is reached on the contract price:

This is to certify that, to the best of my knowledge and belief, cost or pricing data defined in DAR 3-807.1(a)(1) submitted, either actually or by specific identification in writing (see DAR 3-807.3(a)) to the Contracting Officer or his representative in support of _____*
are accurate, complete, and current as of _____**
day month year

This certification includes the cost or pricing data supporting any advance agreement(s) and forward pricing rate agreements between the offeror and the Government which are part of the proposal.

Firm _____
Name _____
Title _____

*Describe the proposal, quotation, request for price adjustment or other submission involved, giving appropriate identifying number (e.g. RFP No. _____).

**The effective date shall be the date when price negotiations were concluded and the contract price was agreed to. The responsibility of the Contractor is not limited by the personal knowledge of the Contractor's negotiator if the Contractor had information reasonably available at the time of agreement, showing that the negotiated price is not based on accurate, complete and current data.

***This date should be as close as practicable to the date when the price negotiations were concluded and the contract price was agreed to.

10. NORTH CAROLINA STATE AND LOCAL SALES AND USE TAX (1977 JAN):

(a) As used throughout this clause, the term "materials" means building materials, supplies, fixtures and equipment which become a part of or are annexed to any building or structure erected, altered, or repaired under this contract.

(b) If this is a fixed-price contract as defined in the Defense Acquisition Regulation, the contract price includes the North Carolina state and local sales and use taxes to be paid with respect to materials, notwithstanding any other provision of this contract. If this is a cost-reimbursement type contract as defined in such regulation, any North Carolina state and local sales and use taxes paid by the Contractor with respect to materials shall constitute an allowable cost under this contract.

(c) At the time specified in paragraph (d) below:

(i) The Contractor shall furnish the Contracting Officer certified statements setting forth the cost of the materials purchased from each vendor and the amount of North Carolina state and local sales and use taxes paid thereon. In the event the Contractor makes several purchases from the same vendor, such certified statement shall indicate the invoice numbers, the inclusive dates of the invoices, the total amount of the invoices and the North Carolina state and local sales and use taxes paid thereon by the Contractor. Any local sales or use taxes included in the Contractor's statements must be shown separately from the state sales or use tax. The Contractor shall furnish such additional information as the Commissioner of Revenue of the State of North Carolina may require to substantiate a refund claim for sales or use taxes.

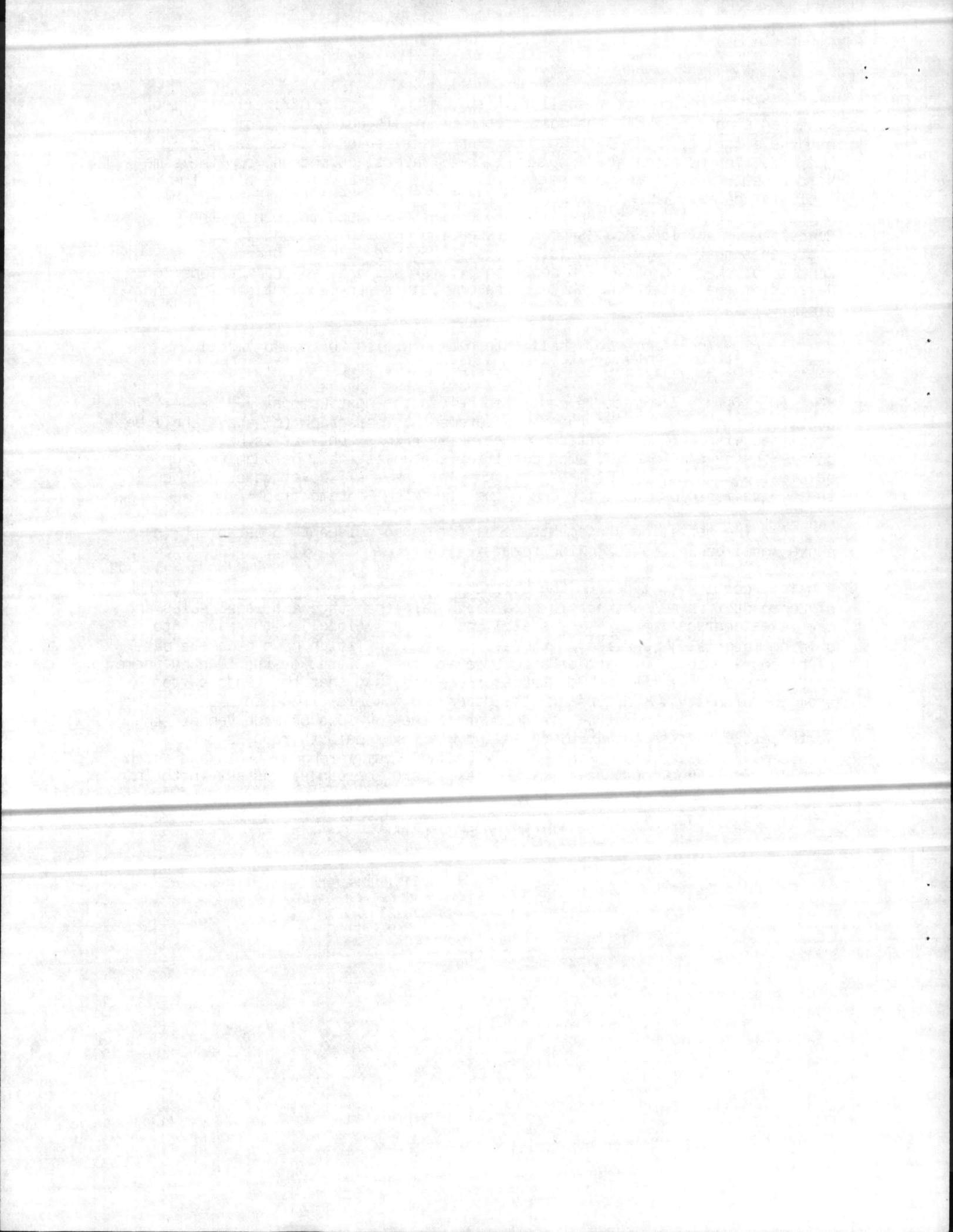
(ii) The Contractor shall obtain and furnish to the Contracting Officer similar certified statements by its subcontractors.

(d) If this contract is completed before the next October 1, the certified statements to be furnished pursuant to paragraph (c) above shall be submitted within 60 days after completion. If this contract is not completed before the next October 1, such certified statements shall be submitted on or before the 30th day of November of each year and shall cover taxes paid during the twelve-month period which ended the preceding September 30.

(e) The certified statements to be furnished pursuant to paragraph (c) above shall be in the following form:

I hereby certify that during the period _____ to _____, (name of Contractor or subcontractor) paid North Carolina state and local sales and use taxes aggregating \$ _____ (state) and \$ _____ (local) with respect to building materials, supplies, fixtures and equipment which have become a part of or annexed to a building or structure erected, altered or repaired by (name of Contractor) for the United States of America, and that the vendors from whom the property was purchased, the dates and numbers of the invoices covering the purchases, the total amount of the invoices of each vendor, the North Carolina state and local sales and use taxes paid thereon, shown separately, and the cost of property withdrawn from warehouse stock and North Carolina state and local sales or use taxes paid thereon are as set forth in the attachments hereto.

END OF SECTION



SECTION 01011

GENERAL PARAGRAPHS

1. GENERAL INTENTION: It is the declared and acknowledged intention and meaning to provide and secure Replace Water Softeners and Associated Piping - Building 20, complete and ready for use.

2. GENERAL DESCRIPTION: The work includes the removal of 5 existing water softeners and piping, the installation of 5 new water softeners and piping, painting, and incidental related work.

3. LOCATION: The work shall be located at the Marine Corps Base, Camp Lejeune, North Carolina, approximately as shown. The exact location will be indicated by the Contracting Officer.

4. COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK: The Contractor will be required to commence work under the contract 15 calendar days after the date of "Notice of Award", to prosecute said work diligently, and to complete the entire work ready for use within 330 calendar days. The time stated for completion shall include final cleanup of the premises. The contract completion date will be computed starting 15 calendar days after the date of the Notice of Award. This 15 day period is to allow for mailing of the Notice of Award and the Contractor's submission of required bonds.

5. LIQUIDATED DAMAGES: In case of failure on the part of the Contractor to complete the work within the time fixed in the contract or any extensions thereof, the Contractor shall pay to the Government as liquidated damages pursuant to Clause entitled, "Termination for Default - Damages for Delay - Time Extensions," and Clause entitled, "Damages for Delay - Defense Materials System and Priorities" of the General Provisions the sum of \$65.00 for each day of delay.

6. DRAWINGS ACCOMPANYING SPECIFICATION: The following drawings accompany this specification and are a part thereof. Drawings are the property of the Government and shall not be used for any purpose other than that contemplated by the specification. The drawings included with this specification are half-size.

EFD Dwg. No.	NAVFAC Dwg. No.	Title
179960	4079960	Title Sheet
179961	4079961	Plans and Section
179962	4079962	Plans and Sections
179963	4079963	Sections and Typical Piping Diagram

179964	4079964	Photos
179965	4079965	Photos
179966	4079966	Photos
179967	4079967	Photos
179968	4079968	Photos

7. SPECIFICATIONS AND PRINTS FURNISHED TO CONTRACTOR: Five copies of the project specification, five sets of one-half size prints

8. SCHEDULE OF PRICES: A schedule of prices shall be furnished in accordance with Clause entitled, "Schedule of Prices" of the General Provisions. The original and seven copies of the schedule of prices shall be submitted to the Contracting Officer, for approval in accordance with Clause entitled, "Schedule of Prices" of the General Provisions. Pursuant to Clause entitled "Payments to Contractor" of the General Provisions, payments will not be made until the schedule of prices has been submitted and approved.

9. CONTRACTOR'S INVOICE AND CONTRACT PERFORMANCE STATEMENT: Requests for payment in accordance with the terms of the contract shall consist of:

(a) Contractor's Invoice on form NAVFAC 10-7300/30 (4/68), which shall show, in summary form, the basis for arriving at the amount of the invoice.

(b) Contract Performance Statement on form NAVFAC 10-7300/31 required by Clause entitled "Contractor's Invoice and Contract Performance Statement" of the General Provisions is deleted.

(c) Contractor's Monthly Estimate for Voucher.

(d) Affidavit to accompany invoice (5ND LANTDIV form 4-4235/4 (Rev 1/68)).

(e) Updated copy of progress schedule. (See Clause entitled "Progress Charts and Requirements For Overtime Work" of the General Provisions.)

Forms will be furnished by the Contracting Officer. The Contractor has the option to use the government furnished progress schedule and record form. Monthly invoices and supporting forms for work performed through the 20th of the month shall be submitted to the Contracting Officer by the 25th of the month in the following quantities.

- (a) Contractor's Invoice (NAVFAC 10-7300/30) - Original and five copies
- (b) Contractor's Monthly Estimate for Voucher (5ND GEN 4265/1) Original and two copies shall be required on all jobs where there is a schedule of prices
- (c) Affidavit (LANTDIV 4-4235/4) - Original
- (d) Progress Schedule - Two copies

10. MATERIALS AND EQUIPMENT TO BE SALVAGED: Clause entitled "Salvage Materials and Equipment" of the General Provisions is hereby deleted. Except where specifically specified otherwise herein, all existing materials and equipment which are required to be removed or disconnected to perform the work, but are not indicated or specified for use in the new work, shall become the property of the Contractor and shall be removed from Government property.

11. AVAILABILITY OF UTILITIES SERVICES: Clause entitled "Availability and Use of Utility Services" of the General Provisions applies. Reasonable amounts of utilities will be made available to the Contractor, free of charge, for work under this contract.

The Contractor will be responsible for making connections, providing transformers and meters, and making disconnections; and for providing backflow preventer devices on connections to domestic water lines.

12. TRAILERS OR STORAGE BUILDINGS: In accordance with Clause entitled "Operations and Storage Areas" of the General Provisions, trailers or storage buildings will be permitted on the job site, where space is available, subject to the approval of the Contracting Officer. The trailers or buildings shall be suitably painted and kept in a good state of repair. Failure of the Contractor to maintain his trailers or storage buildings in good condition will be considered sufficient reason to require their removal from the job site.

13. WRITTEN GUARANTEES AND GUARANTOR'S LOCAL REPRESENTATIVE: Prior to completion of the contract, the Contractor shall obtain and furnish to the Contracting Officer's designated representative written guarantees for all the equipment and appliances furnished under the contract. The Contractor shall furnish with each guarantee: The name, address, and telephone number of the guarantor's representative nearest to the location where the equipment and appliances are installed, who, upon request of the Using Service's representative, will honor the guarantee during the guaranty period and will provide the services prescribed by the terms of the guarantee. At the time of installation, the Contractor shall tag each item of warranted equipment with a durable, oil and water resistant tag approved by the Contracting Officer. Tag shall be attached with copper wire and sprayed with a clear silicone waterproof coating. Leave the date of acceptance and inspector's signature blank until project is accepted for beneficial occupancy. Tag shall show the following information:

EQUIPMENT WARRANTY TAG

Type of Equipment.....
Accepted Date.....
Warranted Until.....
Under Contract N62470-.....
Inspector's Signature.....

STATION PERSONNEL TO PERFORM ONLY OPERATIONAL MAINTENANCE

14. SAFETY PROGRAM: The Contractor shall implement a safety program conforming to the requirements of Federal, State and Local laws, rules and regulations. The program shall include, but is not limited to, the following:

a. "Occupational Safety and Health Standards", which can be ordered from the Superintendent of Documents, U. S. Government Printing Office, Washington, DC 20402.

b. Department of the Army, Corps of Engineers, "General Safety Requirements", which may be examined in the office where bids are being received or may be purchased from the Superintendent of Documents, U. S. Government Printing Office, Washington, DC 20402.

c. General Provisions, Clause entitled "Accident Prevention."

d. NFPA 241-1975, Safeguarding Building Construction and Demolition Operations, which may be examined in the office where bids are being received or may be purchased from the National Fire Protection Association, 470 Atlantic Avenue, Boston, MA 02210.

e. Work in Confined or Enclosed Spaces: In addition to the requirements in Section XXVII of the Corps of Engineers Safety Manual, EM 385-1-1, "Work in Confined or Enclosed Spaces", the following provisions apply:

(1) Definitions

(a) Confined Space - Refers to a space which by design has limited openings for entry and exit; unfavorable natural ventilation which could contain or produce dangerous air contaminants, and which is not intended for continuous employee occupancy. Confined spaces include but are not limited to storage tanks, compartments of ships, process vessels, pits, silos, vats, degreasers, reaction vessels, boilers, ventilation and exhaust ducts, sewers, tunnels, underground utility vaults, and pipelines.

(b) Qualified Person - A person designated by the Contractor, in writing, as capable (by education or specialized training) of anticipating, recognizing, and evaluating employee exposure to hazardous substances or other unsafe conditions in a confined space. This person shall be capable of specifying necessary control and protective action to insure worker safety.

(2) Entry into a confined or enclosed space by personnel for any purpose, including hot work, shall be prohibited until the qualified person has conducted appropriate tests to assure the confined or enclosed space is safe for the work intended.

(3) A permit shall be provided and posted at the work site, by the qualified person, certifying the confined or enclosed space as safe for personnel entry and the work intended. The permit shall also indicate the necessary precautions, protective equipment, and procedures required to maintain a safe operation.

(4) The contractor shall submit to the Contracting Officer a letter of certification for the qualified person. The letter shall state the qualified person's name and qualifications and delineate his authority to direct work stoppage in the event of hazardous conditions.

15. EMERGENCY MEDICAL CARE: Emergency medical care only is available at Government facilities at Marine Corps Base, Camp Lejeune for Contractor employees who suffer on-the-job injury or disease. Emergency care will be rendered at the prevailing rates established in BUMEDINST 6320.4 series. Reimbursement will be made by the Contractor to the Naval Regional Medical Center Collection Agent upon receipt of a monthly statement.

16. SCHEDULING THE WORK:

16.1 General Scheduling Requirements: Notwithstanding the requirements of Clause entitled "Progress Charts and Requirements for Overtime Work" of the General Provisions, immediately after award the Contractor shall meet with the Contracting Officer and present a schedule of work, prepared in accordance with said Clause, for review by the Contracting Officer. The schedule will be reviewed at this meeting and will be retained by the Contracting Officer for final review and approval. The normal working hours are 7:30 a.m. to 4:00 p.m. Monday through Friday.

16.2 Special Scheduling Requirements:

16.2.1 The Marine Corps Base and the Water Treatment Plant will remain in operation during the entire construction period and the Contractor shall conduct his operations so as to cause the least possible interference with the normal operations of the activity.

16.2.2 Only one water softener shall be out of operation at any time. The Contractor shall work on one water softener and its associated piping and have it useably complete, tested, and ready for operation as approved by the Contracting Officer before any work is started on the next water softener and its associated piping.

16.2.3 The existing building and its contents shall be kept secure at all times and the Contractor shall provide all temporary closures as required to maintain security as directed by the Contracting Officer. The Contractor shall remove all debris from all spaces being used by the activity at the end of each shift or more frequently if required to keep the space useable. Dust covers or protective enclosures shall be provided to protect existing work to remain and Government material located in the water treatment plant during the construction period.

16.2.4 Permission to interrupt any utility service shall be requested in writing at least fifteen days in advance and approval of the Contracting Officer shall be received before any service is interrupted. Interruptions of utility services will be allowed only when they will cause no interference with the operations of the activity. All utility cutovers shall be made after normal working hours or on weekends; anticipated costs shall be included in the bid.

17. FORWARDING OF SAMPLES AND SUBMITTALS: Notwithstanding the requirements of Clause entitled "Shop Drawings" of the General Provisions, the quantity of submittals required shall be as specified hereinafter.

17.1 Samples Required of the Contractor: As soon as practicable, and before installation, submit to the Commander, Atlantic Division, Naval Facilities Engineering Command, Code 05, Naval Station, Norfolk, Virginia 23511, for approval, samples of materials and equipment as may be requested, including all samples required in the technical sections of this specification.

17.2 Shop Drawings, Manufacturers Data and Certifications Required of the Contractor: As soon as practicable after award of the contract, and before procurement or fabrication, submit, except as specified otherwise, to the Commander, Atlantic Division, Naval Facilities Engineering Command, Code 05, Naval Station, Norfolk, Virginia 23511, all the shop drawings, manufacturers data and certifications required in the technical sections of this specification. Seven copies of all submittals to be approved by the Contracting Officer shall be forwarded. One copy of the transmittal form for all submittals shall be forwarded to the Resident Officer in Charge of Construction. Specification MIL-D-1000 shall be used as a guide and its use is encouraged for all drawings and data submitted by the Contractor. Conformance to the provisions of specification MIL-D-1000 is not mandatory for maps, sketches, presentation drawings, perspectives, renderings, and all other drawings not requiring Naval Facilities Engineering Command drawing numbers.

18. QUARANTINE FOR IMPORTED FIRE ANT (7/76). All of Onslow, Jones and Cartaret Counties and portions of Duplin and Craven Counties have been declared a generally infested area by the United States Department of Agriculture for the imported fire ant. Compliance with the quarantine regulations established by this authority as set forth in USDA Quarantine No. 81 dated 9 October 1970, and USDA Publication 301.81-2A of 23 July 1976, is required for operations hereunder. Pertinent requirements of the quarantine for materials, originating on the Camp Lejeune reservation, the Marine Corps Air Station (Helicopter), New River and the Marine Corps Air Station, Cherry Point, which are to be transported outside the Onslow County or adjacent suppression areas, include the following:

(a) Certification is required for the following articles, and they shall not be moved from the reservation to any point outside the Onslow County and adjacent designated areas unless accompanied by a valid inspection certificate issued by an Officer of the Plant Protection and Quarantine Program of the U.S. Department of Agriculture.

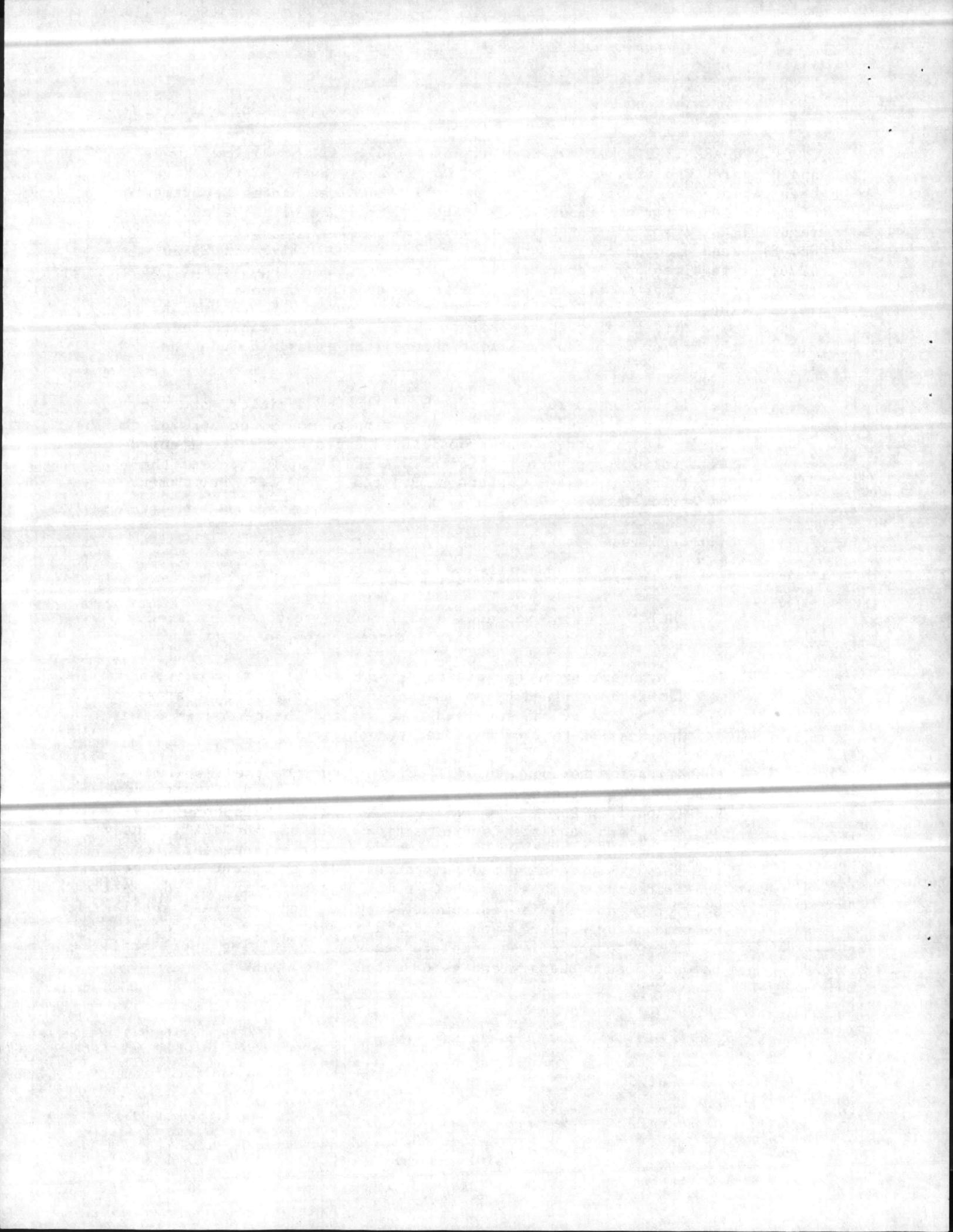
(1) Bulk soil.

(2) Used mechanized soil-moving equipment.

NOTE: Used mechanized soil-moving equipment is exempt if cleaned of all loose noncompacted soil.

(3) Any other products, articles, or means of conveyances, if it is determined by an inspector that they present a hazard of spread of the imported fire ant and the person in possession thereof has been so notified.

(b) Authorization for movement of equipment outside the imported fire ant regulated area shall be obtained from USDA, APHIS, PPQ, Rural Route 6, Box 53D, Wilmington, NC 28405, Telephone (919) 343-4667, and requests for inspection shall be made sufficiently in advance of the date of movement to permit arrangements for the services of authorized inspectors. The equipment shall be prepared and assembled so that it may be readily inspected. All soil on or attached to equipment, supplies and materials shall be removed by washing with water and/or such other means as necessary to accomplish complete removal. Resulting spoil shall be wasted as necessary and as directed.



SECTION 01012

ADDITIONAL GENERAL PARAGRAPHS

1. APPROVAL OF SAMPLES, CUTS, AND DRAWINGS: Matter submitted for approval shall be accompanied by complete information concerning the material, articles, and/or design proposed for use in sufficient detail to show compliance with the specification, and shall be approved before incorporation into the work. Approval thereof will not be construed as relieving the Contractor of compliance with the specification, even if such approval is made in writing, unless the attention of the Contracting Officer is called to the noncomplying features by letter accompanying the submitted matter. Partial submittals or submittals of less than the whole of any system made up of interdependent components, will not be considered. Approval of drawings, cuts, and samples by the Contracting Officer shall not be construed as a complete check or approval of the detailed dimensions, weights, gauges and similar details of the proposed articles. The conformance of such details with the contract requirements, together with the necessary coordination of dimensions and details between the various elements of the work and between the various subcontractors and suppliers, shall be solely the responsibility of the Contractor, approval of submitted matter notwithstanding.

2. OPERATION OF STATION UTILITIES: The Contractor shall not operate nor disturb the setting of any control devices in the station utilities system, including water, sewer, electrical and steam services. The Government will operate the control devices as required for normal conduct of the work. The Contractor shall notify the Contracting Officer giving reasonable advance notice when such operation is required.

3. CHANGED CONDITIONS: Wherever changed conditions as defined in Clause 4 of the General Provisions are encountered, and wherever conditions exposed during the course of the work necessitate a change from quantities indicated or specified as either estimated quantities or as a basis for bids, whether or not provision for a change in price for such variation is specified, the Contracting Officer must be notified in writing and written directions to do so must be obtained before quantities stated in the contract documents are exceeded.

4. SUBCONTRACTORS AND PERSONNEL: Promptly after the award of the contract, the Contractor shall submit to the Contracting Officer, in triplicate, a list of his subcontractors and the work each is to perform. On this form shall appear the names of the key personnel of the Contractor and subcontractors, together with their home addresses and telephone numbers, for use in event of any emergency. From time to time as changes occur and additional information becomes available, the Contractor shall amplify, correct, and change the information contained in previous lists.

(7/81)

5. AS-BUILT DRAWINGS: During the progress of the work one full-size print of each of the drawings accompanying this specification shall be neatly and clearly marked in red to show all variations between the construction actually provided and that indicated or specified in the contract documents. The as-built drawings shall be kept up-to-date at the work site at all times during the contract, and shall be available for inspection by the Contracting Officer upon request. The Contractor shall also mark the drawings to indicate the exact location of any underground utility lines discovered in the course of the work. Where a choice of materials or methods, or both, is permitted herein, and where variations in the scope or character of the work indicated or specified are permitted either by award on bidding items specified for that purpose or by subsequent change to the contract, the as-built drawings shall define the construction actually provided. The representation of such variations shall conform to standard drafting practice and shall include such supplementary notes, legends, and details as may be necessary for legibility and clear portrayal of the as-built construction; the marked prints shall be subject to approval of the Contracting Officer before acceptance. Upon completion of the work, the completed as-built drawings shall be presented to the Contracting Officer.

6. LOCATION OF UNDERGROUND UTILITIES: Where existing piping, utilities, and underground obstructions of any type are indicated in locations to be traversed by new piping, ducts, and other work provided hereunder, and 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. For any additional work required by reason of conflict between the new and existing work, an adjustment in contract price will be made in accordance with Clause 4 of the General Provisions.

SECTION 01401

CONTRACTOR INSPECTION SYSTEM

PART 1 - GENERAL

1.1 APPLICABLE PUBLICATIONS: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

1.1.1 American Society for Testing and Materials (ASTM) Publications:

D 3666-78	Inspection and Testing Agencies for Bituminous Paving Materials
D 3740-78	Evaluation of Agencies Engaged in Testing and/or Inspection of Soil and Rock as Used in Construction
E 329-77	Inspection and Testing Agencies for Concrete, Steel, and Bituminous Materials as Used in Construction
E 543-76	Nondestructive Testing Agencies, Rec. Practice for Determining the Qualifications of
E 548-79	Testing and Inspection Agencies, Rec. Practices for Generic Criteria for Use in Evaluation of

1.2 QUALITY CONTROL: Quality Control of this contract will be administered under the General Provisions Clause entitled "Contractor Inspection System."

1.3 DEFINITIONS:

1.3.1 Factory Tests: Tests made on various products and component parts prior to shipment to the job site, including but not limited to such items as transformers, boilers, air conditioning equipment, electrical equipment, and precast concrete.

1.3.2 Field Tests: Tests or analyses made at, or in the vicinity of the job site in connection with the actual construction.

1.3.3 Product: The term "product" includes the plural thereof and means a type or a category of manufactured goods, constructions, installations, and natural and processed materials or those associated services whose characterization, classification, or functional performance determination is specified by standards.

1.3.4 Person: The term "person" means associations, companies, corporations, educational institutions, firms, government agencies at the Federal, State and local level, partnerships, and societies, as well as divisions thereof, and individuals.

1.3.5 Testing Laboratory: The term "testing laboratory" means any "person," as defined above, whose functions include testing, analyzing, or inspecting "products," as defined above, and/or evaluating the designs or specifications of such "products" according to the requirements of applicable standards.

1.3.6 Certified Test Reports: Test reports signed by an authorized official stating that tests were performed in accordance with the test method specified, that the results reported are accurate, and that items tested either meet or fail to meet the stated minimum requirements. These test reports include those performed by Factory Mutual, Underwriters Laboratories, Inc. and others.

1.3.7 Certified Inspection Reports: Reports signed by approved inspectors attesting that the items inspected meet the specification requirements other than any exception included in the report.

1.3.8 Manufacturer's Certificate of Conformance: A certificate signed by an authorized manufacturer's official attesting that the material or equipment delivered meets the specification requirements.

1.4 SUBMITTALS: Prepare in accordance with the General Provisions and submit for approval. Each submittal shall be accompanied with a cover letter signed by the Contractor. Clearly mark each item proposed to be incorporated into the contract and identify in the submittals, with cross-references to the contract drawings and specifications so as to identify clearly the use for which it is intended. Stamp each sheet of submittal with the Contractor's certification stamp. Data submitted in a bound volume or on one sheet printed on two sides, may be stamped on the front of the first sheet only. The Contractor's certification stamp shall be worded as follows:

"It is hereby certified that the (equipment) (material) shown and marked in this submittal is that proposed to be incorporated into Contract Number _____, is in compliance with the Contract drawings and specifications, can be installed in the allocated spaces, and is submitted for Government approval.

Certified by _____ Date _____"

The person signing the certification shall be one designated in writing by the Contractor as having that authority. The signature shall be in original ink. Stamped signatures are not acceptable.

1.4.1 Submittal Status Logs: Within 15 calendar days after receipt of the "Notice of Award" the Contractor shall submit to the Resident Officer in Charge of Construction a copy of a submittal status log listing all submittals required in this contract. The Contractor shall maintain at the job site the submittal status log showing the status of all submittals. A sample format of an acceptable log is attached at the end of this section. While the use of this sample format is not required, any other format must contain the same information as shown on the sample. The submittal status log shall be made available for review by the Contracting Officer at all times.

1.4.2 Shop Drawings: These submittals shall be in accordance with the requirements of the General Provisions Clause entitled "Shop Drawings."

1.4.3 Manufacturer's Data: Catalog cuts, technical data sheets, and descriptive literature, shall be in accordance with the General Provisions Clauses entitled "Catalog Data" and "Proposed Material Submittals Required of the Contractor."

1.4.4 Samples: Prepare and submit in accordance with the General Provisions Clause entitled "Samples."

1.4.5 Certified Test Reports: Before delivery of materials and equipment, four certified copies of the reports of all tests listed in the technical sections shall be submitted and approved. The testing shall have been performed in a laboratory meeting the requirements specified herein. The tests shall have been performed within 3 years of submittal of the reports for approval. Test reports shall be accompanied by the certificates from the manufacturer certifying that the material and equipment proposed to be supplied is of the same type, quality, manufacture, and make as that tested.

1.4.6 Manufacturer's Certificates of Conformance: Before delivery, manufacturer's certifications shall be furnished by the Contractor as required on items of materials and equipment indicated in the technical sections. Pre-printed certifications will not be acceptable. All certifications shall be in the original. The original of all manufacturer's certifications shall name the appropriate item of equipment or material, specification, standard, or other document specified as controlling the quality of that item and shall have attached thereto certified copies of test data upon which the certifications are based. All certificates shall be signed by the manufacturer's official authorized to sign certificates of conformance.

1.4.7 Laboratory Reports: Reports shall cite the contract requirements, the test or analysis procedures used, the actual test results, and include a statement that the item tested or analyzed conforms or fails to conform to the specification requirements. Each report shall be conspicuously stamped on the cover sheet in large red letters "CONFORMS" or "DOES NOT CONFORM" to the specification requirements as the case may be. All test reports shall be signed by a

representative of the testing laboratory authorized to sign certified test reports. The Contractor shall arrange for immediate and direct delivery of the signed original of all reports, certifications, and other documentation to the Contracting Officer.

1.4.8 Tabulation of Tests: Prior to final payment the Contractor shall obtain from each laboratory a tabulation of all tests it has performed in connection with the construction contract. Conforming, nonconforming, and retesting shall be tabulated. The tabulation(s) shall be certified as complete, and signed by the authorized representative of the laboratory, and shall be delivered to the Contracting Officer.

PART 2 - EXECUTION

2.1 QUALITY CONTROL REQUIREMENTS: In accordance with the General Provisions Clause entitled "Contractor Inspection System," the Contractor shall inspect and test all work under the contract and maintain records of the inspections and tests; however, the Government will perform testing when so stated in the specifications. Approvals, except those required for field installations, field applications, and field tests, shall be obtained before delivery of materials and equipment to the project site. Surveillance of the inspection system will be performed by the Contracting Officer.

2.1.1 Factory Tests: Unless otherwise specified, the Contractor shall arrange for factory tests when they are required under the contract.

2.1.2 Factory Inspections by the Contractor: Unless otherwise specified, the Contractor shall arrange and perform all factory inspections specifically required in the technical sections of the specifications. These inspections shall be reported in the Daily Report to Inspector.

2.1.3 Field Inspections and Tests by the Contractor: The Contractor shall furnish all equipment, instruments, qualified personnel, and facilities necessary to inspect all work and perform all tests required by the contract. All inspections and tests performed and test results received each day shall be included in the Daily Report to Inspector.

2.1.4 Field Inspections and Tests by the Government: If deemed necessary by the Contracting Officer, field inspections and tests will be made in accordance with the General Provisions Clause entitled "Inspection and Acceptance."

2.1.5 Approval of Testing Laboratories: All laboratory work under this contract shall be performed by a laboratory approved by the Government, whether the laboratory is employed by the Contractor, or is owned and operated by the Contractor. The basis of approval includes the following:

- a. Testing laboratories performing work in connection with concrete, steel, and bituminous materials shall comply with ASTM E 329 and ASTM D 3666, respectively.
- b. Testing laboratories engaged in the testing and inspection of soils and rock or performing non-destructive testing shall comply with ASTM D 3740 and ASTM E 543, respectively.
- c. Testing laboratories performing work not in connection with concrete, steel, bituminous materials, soils and non-destructive testing shall comply with ASTM E 548.

2.1.5.1 Laboratory Inspection: Prior to approval the laboratory shall submit in writing the following:

- a. Functional description of the laboratories organizational structure, operational departments, and support departments and services.
- b. A list and resume of the personnel assigned to the proposed testing, including the person charged with engineering managerial responsibility.
- c. Affidavit of compliance with the applicable ASTM publication and certification that the laboratory performs work in accordance with technical requirements as required by the contract specifications.
- d. A list of test and inspection equipment for each of the proposed test procedures and certification that the equipment is calibrated at prescribed intervals to insure the validity of the test and inspection data.
- e. A copy of any recent certification of inspection report of the laboratory by a nationally recognized agency, including a statement of corrections made based on the findings of the agency. In the absence of inspection by a nationally recognized agency, the laboratory will be subject to inspection by the Contracting Officer upon receipt of all the above information 30 days before the required approval of the testing laboratory.

2.1.6 Repeated Tests and Inspections: The Contractor shall repeat tests and inspections after each correction made to nonconforming materials and workmanship until tests and inspections indicate the materials, equipment, and workmanship conform to the contract requirements. The retesting and reinspections shall be performed at no additional cost to the Government.

2.1.7 Daily Report to Inspector: The signed "Daily Report to Inspector" Form NAVFAC 4330/34 shall be submitted to the Contracting Officer by 10:00 AM on the working day following the day the work was performed.

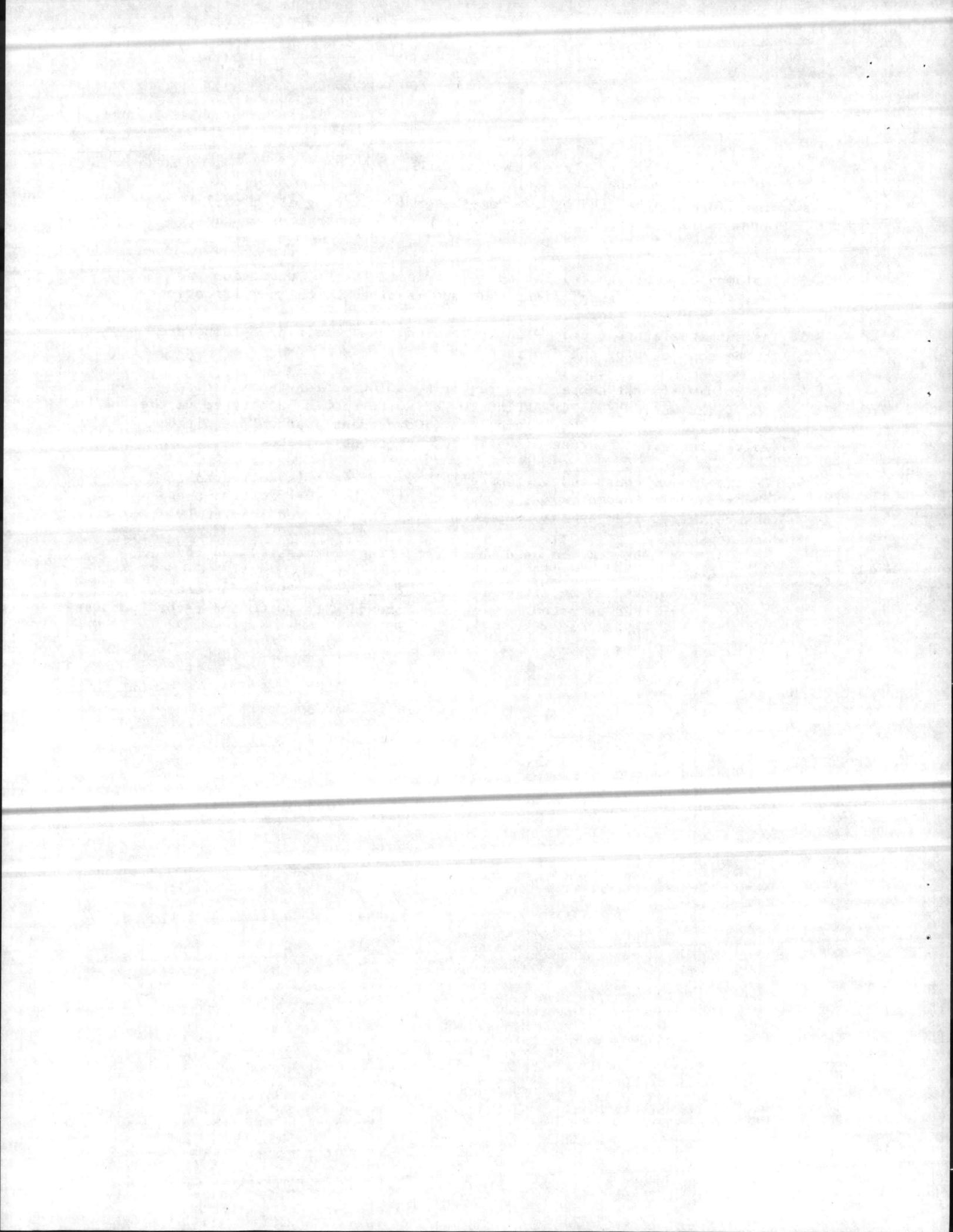
*** END OF SECTION ***

INSTRUCTIONS

1. This form may be used by the Contractor for listing all material submittals that require action by either the Contractor or the Government.
2. Columns (a) through (e) should be completed by the Contractor and must include all submissions that are required by the specifications.
3. As submittals are received and processed, the remaining columns are to be completed by the Contractor.
4. In column (f) for those items requiring ROICC action (action code "D"), THE REASON FOR FORWARDING TO THE ROICC should be entered in the column (l), the remarks column; e.g., Government approval required; waiver requested because of variance, substitution, etc.
5. Column (j) is completed when material or equipment is delivered to the project. Column (k) is completed only after verification that the delivered item is that represented by the approved submittal.

ACTION CODE: To be used when completing columns (f) and (h)

A - Approved as submitted	D - Forwarded to ROICC for action
B - Approved as noted	E - Forwarded to ROICC for record purpose
C - Disapproved	



SECTION 01560

ENVIRONMENTAL PROTECTION

1. ENVIRONMENTAL PROTECTION PLAN: The Contractor shall be responsible for the preparation and submission of an environmental protection plan. After the contract is awarded, but prior to the commencement of the work, the Contractor shall meet with the Contracting Officer, or his representative, and discuss the proposed environmental protection plan. The meeting shall develop mutual understanding relative to details of environmental protection, including required reports and measures to be taken should the Contractor fail to provide adequate protection in an adequate and timely manner. Not more than 14 days after the meeting, the Contractor shall submit for approval his proposed environmental protection plan.

2. GENERAL REQUIREMENTS: The Contractor shall provide and maintain environmental protection during the life of the contract as defined herein. The Contractor's operations shall comply with all Federal, State, and Local regulations pertaining to water, air, solid waste, and noise pollution.

3. DEFINITIONS OF POLLUTANTS:

3.1 Non-hazardous Wastes: Solid or liquid substances that are to be discarded by the Contractor and that normally do not constitute a hazard to man or to the environment. This includes, but is not limited to, paper, metal (other than toxic metals such as lead and mercury), masonry, wood, brick, stone, asphaltic concrete, plastics, rubber, rubbish and concrete.

3.2 Hazardous Wastes: Solid and liquid substances that are to be discarded by the Contractor and that constitute a significant active or potential hazard to man and/or to the remainder of the environment. This includes, but is not limited to, asbestos, glass, lead, mercury, pesticides, herbicides, other toxic chemicals and waste, liquid petroleum products, human excrement, garbage, sediment, and radioactive materials.

3.2.1 Sediment: Soil that has been eroded and transported by running water.

3.2.2 Garbage: Waste foodstuffs.

3.2.3 Human Excrement: Solid or liquid wastes produced by the human body.

4. PROTECTION OF NATURAL RESOURCES:

4.1 General: It is intended that the natural resources within the project boundaries and outside the limits of permanent work performed under this contract be preserved in their existing condition or be restored to an equivalent or improved condition upon completion of the work. The Contractor shall confine his construction activities to areas defined by the work schedule, plans, and specifications.

4.2 Land Resources: The Contractor shall not remove, cut, deface, injure, or destroy trees or shrubs without written permission from the Contracting Officer. No ropes, cables, or guys shall be fastened to or attached to any existing nearby trees for anchorages unless specifically authorized. Where such special emergency use is permitted, the Contractor shall be responsible for repairing or replacing any damage resulting from such use.

4.2.1 Protection Plan: Where trees may possibly be defaced, bruised, injured or otherwise damaged by the Contractor's activity, equipment, or by his dumping, or other operations, the Contractor shall submit a plan for protecting such trees. Monuments, markers and works of art shall be protected before beginning operations.

4.2.2 Repair or Restoration: Any trees or other landscape features scarred or damaged by the Contractor's equipment or operations shall be repaired and/or restored to their original condition at the Contractor's expense. The Contracting Officer shall approve the repair and/or restoration planned prior to its initiation.

4.2.3 Temporary Construction: The Contractor shall obliterate all signs of temporary construction facilities such as work areas, structures, stockpiles of excess or waste materials, or any other vestiges of construction as directed by the Contracting Officer.

4.3 Water Resources: It shall be the responsibility of the Contractor to investigate and comply with all applicable Federal, State, and Local regulations concerning the discharge (directly or indirectly) of pollutants to the underground and natural waters. All work under this contract shall be performed in such a manner that any adverse environmental impacts are reduced to a level that is acceptable to the Contracting Officer.

4.4 Oily Substances: At all times, special measures shall be taken to prevent oily or other hazardous substances from entering the ground, drainage areas, or local bodies of water in such quantities as to affect normal use, aesthetics or produce a measurable ecological impact on the area.

4.5 Historical and Archeological Resources: All items having any apparent historical or archeological interest which are discovered in the course of any construction activities shall be carefully preserved and reported immediately to the Contracting Officer for determination of actions to be taken.

5. CONTROL AND DISPOSAL OF HAZARDOUS AND NON-HAZARDOUS WASTES:

5.1 Non-hazardous wastes, except rubble, shall be picked up and disposed of daily or placed in containers which are emptied on a weekly schedule. All handling and disposal shall be so conducted as to prevent contamination of the site and any other areas. The Contractor shall transport all such waste and dispose of it in the Base Sanitary Landfill, unless otherwise approved. If transporting any material off Government property, the Contractor shall provide the Contracting Officer a copy of State and/or local permit which reflects the responsible agency's approval of the disposal area and proposed waste disposal methods. Rubble such as masonry, stone, concrete without reinforcing steel, and brick shall be deposited as indicated. Upon completion, the work and disposal areas shall be left clean and natural looking. All signs of temporary construction and activities incidental to construction of the required permanent work in place shall be obliterated.

5.2 Hazardous Wastes:

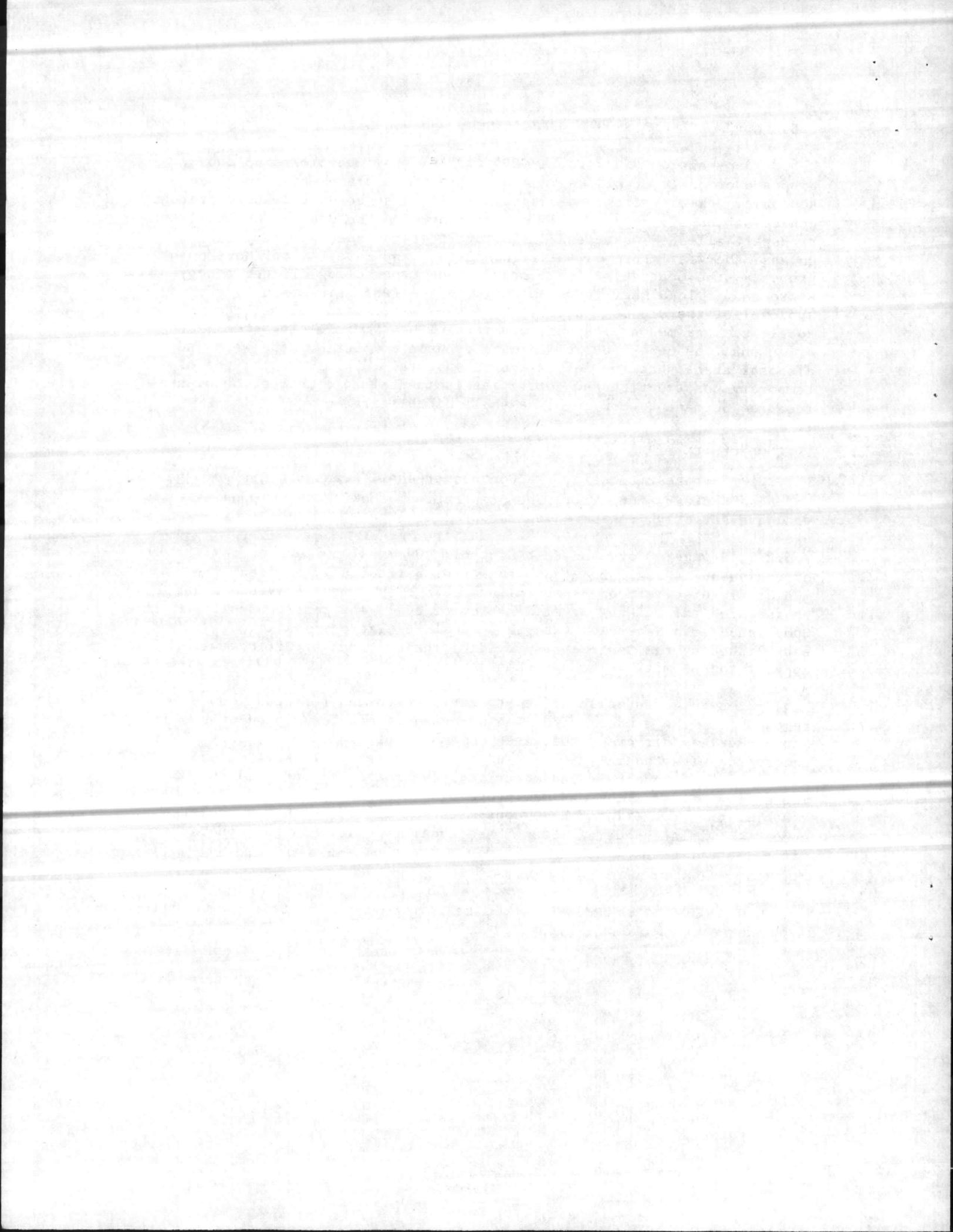
5.2.1 Garbage Disposal: The Contractor shall transport his garbage to the Base Sanitary Landfill. The preparation, cooking and disposing of food are strictly prohibited on the project site.

5.2.2 Sewage, Odor, and Pest Control: Chemical toilets or comparably effective units shall be used with wastes periodically emptied into municipal, district, or Base sanitary sewage systems. Provisions shall be included for masking or elimination of odors and pest control. Compliance with Federal, State, and Local regulations shall be established by the Contractor providing the Contracting Officer with a copy of the permit or license when applicable.

5.2.3 Liquid wastes shall be stored in corrosion-resistant containers, removed from the project site, and disposed of not less frequently than monthly unless directed otherwise. Disposal of liquid waste shall be in accordance with Federal, State, and Local regulations. Fueling and lubricating of equipment and motor vehicles shall be conducted in a manner that affords the maximum protection against spills and evaporation. For oil and hazardous material spills which may be large enough to violate Federal, State, and Local regulations, the Contracting Officer shall be notified immediately. The Base Sanitary Landfill will not accept liquid wastes or empty drums.

5.3 REMOVED WATER SOFTENERS shall be removed from the Base, transported and disposed of in accordance with applicable Local, State and Federal regulations.

END OF SECTION



SECTION 02050

DEMOLITION AND REMOVAL

PART 1 - GENERAL

1.1 SUBMITTALS: Submit proposed salvage, demolition and removal procedures to the Contracting Officer for approval before work is started. Procedures shall provide for careful removal and disposition of materials specified to be salvaged, coordination with other work in progress, a disconnection schedule of utility services, a detailed description of methods and equipment to be used for each operation, and sequence of operations.

1.2 REQUIREMENTS: The work includes demolition or removal of all construction indicated or specified. All materials resulting from demolition work, except as indicated or specified otherwise, shall become the property of the Contractor and shall be removed from the limits of Government property. Remove rubbish and debris from the station daily, unless otherwise directed; do not allow accumulations inside or outside the buildings. Store materials which cannot be removed daily in areas specified by the Contracting Officer. Scheduling shall be as specified in Section 01011, "General Requirements."

1.3 DUST CONTROL: Take appropriate action to check the spread of dust to occupied portions of the building and to avoid the creation of a nuisance in the surrounding area. Do not use water if it results in hazardous or objectionable conditions, such as ice, flooding or pollution. Comply with all dust regulations imposed by local air pollution agencies.

1.4 PROTECTION:

1.4.1 Buildings: Protect existing work that is to remain in place, that is to be reused, or that is to remain the property of the Government. Repair items damaged during performance of the work or replace with new. Do not overload structural elements. Provide new supports or reinforcement for existing construction weakened by demolition or removal work.

1.4.2 Weather Protection: Protect building interior and all materials and equipment from the weather at all times. Have materials and workmen ready to provide adequate and approved temporary covering of exposed areas. Temporary coverings shall be attended, as necessary, to insure effectiveness and to prevent displacement.

1.4.3 Personnel: Where pedestrian and driver safety is endangered in the area of removal work, use traffic barricades with flashing lights. Notify the Contracting Officer prior to beginning any such work.

PART 2 - EXECUTION

2.1 EXISTING FACILITIES TO BE REMOVED:

2.1.1 Water Softeners: All water softeners and their associated piping as indicated, shall be removed in their entirety. The Contractor shall drain each softener and its associated piping before removal.

2.2 DISPOSITION OF MATERIAL:

2.2.1 Title to Materials: Title to all materials and equipment to be removed, except as specified otherwise, is vested in the Contractor upon receipt of notice to proceed. The Government will not be responsible for the condition or loss of, or damage to, such property after notice to proceed. Materials and equipment shall not be viewed by prospective purchasers or sold on the site.

2.2.2 Reuse of Materials and Equipment: Carefully remove and store materials and equipment indicated to be reused or relocated to prevent damage, and reinstall as the work progresses. Remove items in a manner that will prevent damage.

2.3 CLEANUP:

2.3.1 Debris and Rubbish: Remove and transport debris and rubbish in a manner that will prevent spillage on streets or adjacent areas. Clean up spillage from streets and adjacent areas. Other applicable requirements are included under Section Environmental Protection.

2.3.2 Regulations: Comply with federal, state, and local hauling and disposal regulations.

*** END OF SECTION ***

SECTION 09910

FIELD PAINTING

PART 1 - GENERAL

1.1 APPLICABLE PUBLICATIONS: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

1.1.1 Federal Specifications (Fed. Spec.):

TT-E-489G Enamel, Alkyd, Gloss (for Exterior and Interior Surfaces)

TT-P-98C Paint, Stencil, Flat

1.1.2 Military Specifications (Mil. Spec.):

DOD-P-15328D Primer (Wash), Pretreatment (Formula No. 117) for Metals)(Metric)

1.1.3 Federal Standard (Fed. Std.):

Fed. Std. 595A Colors
& Notice 4

1.1.4 Military Standard (Mil. Std.):

MIL-STD-101B Color Code for Pipelines and for Compressed-gas Cylinders

1.2 SUBMITTALS:

1.2.1 Certificates of Conformance: Submit certificates of compliance from the manufacturer stating that previously manufactured materials have been tested by recognized laboratories; that such materials meet testing requirements in referenced specifications; and that the material furnished for this project is of the same type, quality, manufacture, and make as that tested. Copies of the test reports need not be submitted except as specifically requested by the Contracting Officer. The Government will take one pint samples from coatings being used on the job for testing by the Government.

1.3 APPROVAL OF MATERIALS: Do not apply any coating before required test reports, certificates, and requests for substitutions have been submitted and the respective material approved for use on this project. Submit all requests for substitutions to the Contracting Officer. Each such request shall include specific identification of the proposed

substitute; justification for the necessity of the substitution; certified test reports of the proposed substitute, including all tests required by the specification for the substituted material; and a tabulation of the specified material compared to the proposed substitute. The tabulation shall include all tests, composition of both pigment and vehicle, and quantitative and qualitative requirements for both the specified and the proposed material; clearly indicate any deviations from specified requirements.

1.4 DELIVERY AND STORAGE: Deliver coatings and coating materials in unbroken original packages bearing the manufacturer's name and brand designation, specification number, batch number, color, date of manufacture, and manufacturer's instructions for application. Restrict storage of coatings and coating materials and the mixing of coatings to the locations directed.

1.5 SELECTION OF COLORS: Colors of finish coats shall be as indicated. Where colors are not indicated, the colors shall be as selected by the Contracting Officer from Fed. Std. No. 595. Manufacturers' names and color designations, if indicated, are used for the purpose of color designations only and are acceptable for use on this project only if they conform to all specified requirements. Products of other manufacturers are acceptable if the colors closely approximate colors indicated and the product conforms to all specified requirements.

1.6 DESCRIPTION OF WORK: Surfaces concealed by portable objects and by surface mounted articles readily detachable by removal of fasteners such as screws and bolts are included in the work. Surfaces concealed and made inaccessible by panelboards, fixed ductwork, machinery, and equipment fixed in place are not included. Remove articles obstructing access to those surfaces specified to be included in the work and restore to their original position on completion. Do not coat surfaces in concealed spaces unless specifically so stated. Concealed spaces are defined as spaces above suspended ceilings, furred spaces, attic spaces, crawl spaces, and chases. Do not coat surfaces of steel to be imbedded in concrete. Do not coat copper, stainless steel, and aluminum except where specifically so stated. Do not coat new factory finished materials except those that require identification or color coding and those factory-finished surfaces which are damaged during installation. Restore damaged factory-finished surfaces to their original condition. Do not paint zinc-coated pipe, or copper pipe under insulation or in concealed spaces.

1.6.1 Exterior and Interior Painting: Includes new surfaces and existing surfaces damaged during performance of work.

PART 2 - PRODUCTS

2.1 MATERIALS: Conform to the respective specifications and standards listed for use in PART 3 and to the following requirements.

2.1.1 Lead Content: Do not use coatings having a lead content of over 0.06 percent by weight of nonvolatile content.

PART 3 - EXECUTION

3.1 PROTECTION OF AREAS AND SPACES: Remove, mask, or otherwise protect prior to surface preparation and painting operations such items as hardware, hardware accessories, machined surfaces, radiator covers, plates, lighting fixtures, and similar items in contact with coated surfaces. Following completion of painting, reinstall removed items utilizing workmen skilled in the trades involved for such removal and reinstallation. Protect from contamination by coating materials all surfaces not to be coated. Restore surfaces that are contaminated by painting materials to original condition.

3.2 PREPARATION OF SURFACES: Remove all dirt, rust, scale, splinters, loose particles, disintegrated coatings, grease, oil, and other deleterious substances from all surfaces which are to be coated or otherwise finished. Sandpaper entire surface of existing enamel and other glossy surfaces before application of any coatings. Inspect surfaces after preparation and receive approval before application of any coatings.

3.2.1 New Unprimed Metal Surfaces: Solvent clean zinc-coated surfaces with mineral spirits and wipe dry with clean, dry cloths. Treat aluminum surfaces to be painted with a 10 percent aqueous solution of chromic acid at a temperature of not less than 140 degrees F for 3 to 5 minutes and rinse thoroughly with clean warm water. Immediately after cleaning and treating, apply pretreatment wash primer, Mil. Spec. DOD-P-15328, to a dry film thickness of 0.2 to 0.5 mil on zinc-coated, aluminum, brass, copper, and ferrous surfaces. Apply primer as soon as practicable after pretreatment has dried.

3.2.2 Existing Metal Surfaces to be Coated: Remove all deleterious substances from surfaces as specified herein; sand-paper, wire brush, or rub with steel wool over their entire surfaces and scrape where necessary to remove loose paint. Clean all rusted spots down to bare metal including spots where rust discoloration appears through the existing coating. Remove to the extent that only minor rust discoloration in deep pits remains. Otherwise, clean the surfaces to bright metal. Immediately after such cleaning and before any new rust has formed, coat the bare surfaces with pretreatment wash primer, Mil. Spec. DOD-P-15328, to a dry film thickness of 0.2 to 0.5 mil. After the compound is thoroughly dry and hard, apply primer coats specified for new metal surfaces.

3.3 APPLICATION: Provide finished surfaces free from runs, drops, ridges, waves, laps, brush marks, and variations in colors. Avoid contamination of other surfaces and public and private property in the area; repair all damage thereto. Allow sufficient time between coats to

permit thorough drying and provide each coat in proper condition to receive the next coat. Each coat shall cover the surface of the preceding coat or surface completely; there shall be an easily perceptible difference in shades of successive coats. Thoroughly clean surfaces to be coated. Interior areas shall be broom-clean and dust-free before and during the application of coating material. Prior to erection, use two coats of the designated primer to treat and prime wood and metal surfaces which will be inaccessible after erection. Thoroughly work painting materials into all joints, crevices, and open spaces. Finished surfaces shall be smooth, even, and free of defects. Retouch damaged painting before applying succeeding coats of paint.

3.3.1 Equipment: Apply coatings carefully with good, clean brushes.

3.3.2 Thinning of Paints: Reduce paints to proper brushing consistency by adding fresh paint, except that when thinning is mandatory for the type of paint being used, obtain written permission from the Contracting Officer to use thinners. The written permission shall include quantities and types of thinners to use.

3.3.3 Environmental Conditions: Do not apply exterior coatings in foggy or rainy weather or when the temperature of the air at the surface is below 45 degrees F or over 95 degrees F, unless approved by the Contracting Officer. Apply interior coatings when the surfaces to be painted are dry and the temperature can be kept above 45 degrees F and below 95 degrees F during the application of ordinary paints and between 65 degrees F and 95 degrees F during the application of enamels and varnishes.

3.3.4 Paint Systems: New surfaces and existing surfaces made bare by cleaning operations shall receive the following coatings conforming to the respective specifications listed. Existing surfaces to be painted shall receive the following coatings conforming to the respective specifications listed, except that pretreatments, sealers, fillers, and primers need not be provided on surfaces where existing coatings are firmly adhered and in good condition. Apply paints, primers, varnishes, enamels, undercoats, and other coatings to a dry film thickness of not less than 1.0 mil each coat except as specified otherwise. Where coating thickness is specified, it is the minimum dry film thickness.

3.3.4.1 Exterior and Interior Surfaces:

a. Metal Surfaces:

Touch up shop prime coat on shop primed surfaces
Primer, Fed. Spec. TT-P-645, two coats on surfaces not shop
primed, one coat on shop primed surfaces
Two coats of alkyd enamel, Fed. Spec. TT-E-489

3.3.4.2 Existing Surfaces Damaged During Performance of the Work:

One coat of suitable primer
One coat of undercoat or intermediate coat
One finish coat to match adjacent surfaces

3.3.4.3 Mechanical and Miscellaneous Metal Items, Except New Prefinished Equipment: Prefinishing of new mechanical equipment is specified in the section covering the particular item.

Coating systems as specified hereinbefore
Color of finish coat to match adjacent surfaces

a. Surfaces Not Adjacent to Painted Surfaces:

One coat of primer, Fed. Spec. TT-P-645
Two coats of enamel, Fed. Spec. TT-E-489 or of same coating as used for coating metal in same space

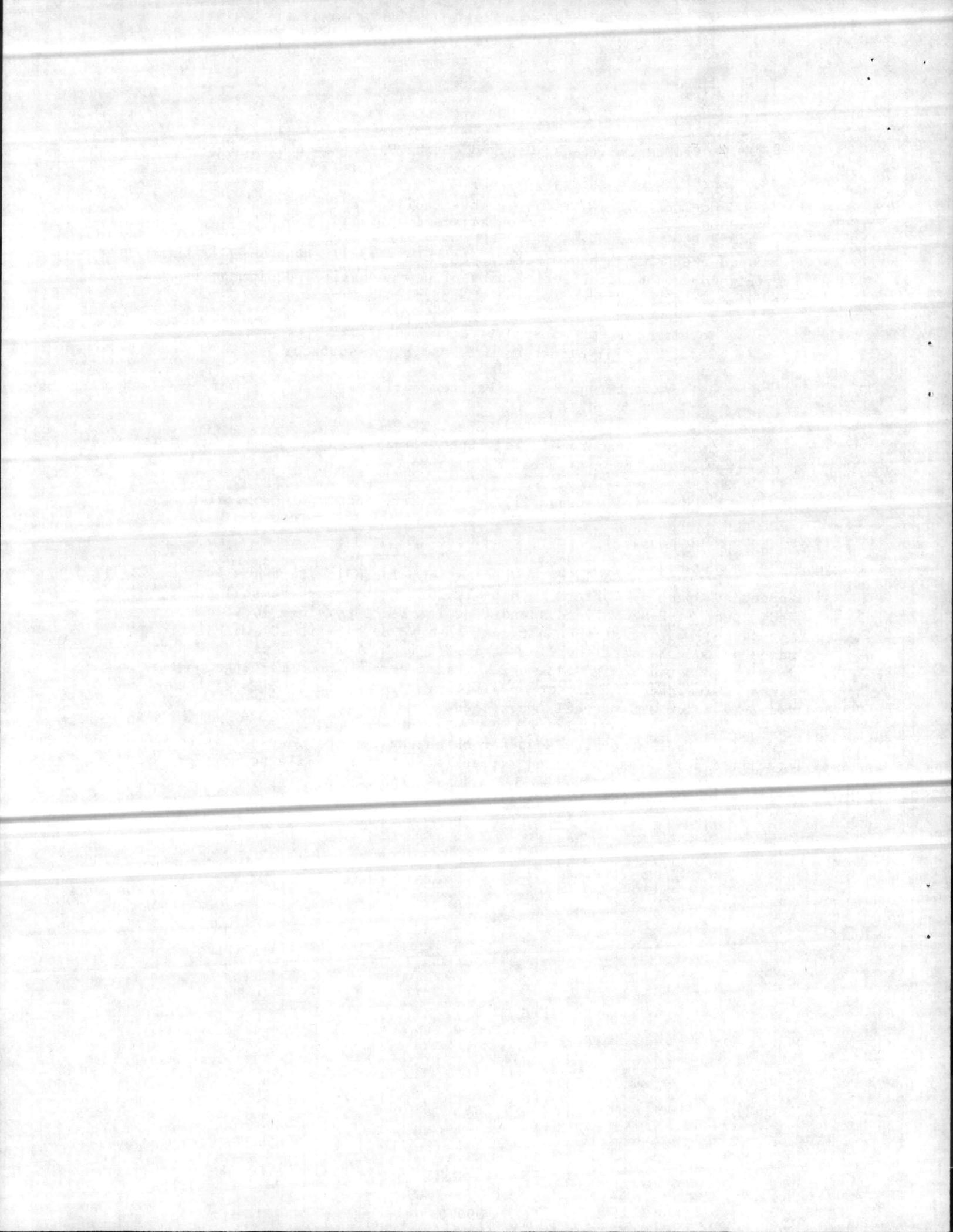
b. New Exterior Ferrous Piping, Not Zinc-Coated, In Concealed Spaces:

Two coats of primer, Fed. Spec. TT-P-645

c. Piping and Conduit Identification, Including Surfaces In Concealed Spaces: Conform to MIL-STD-101, using black stencil paint, Fed. Spec. TT-P-98. Place stenciling in clearly visible locations. Stencil all piping and conduits not covered by MIL-STD-101 with approved names or code letters, not less than 1/2 inch high for piping and not less than 2 inches high elsewhere. Paint arrow-shaped markings on the lines to indicate the direction of flow. Provide two copies of the complete color and stencil codes used.

3.3.4.4 Coat other surfaces for which the type of coating has not been specified herein as specified for surfaces having similar conditions of exposure.

*** END OF SECTION ***



SECTION 11233

WATER SOFTENERS AND PIPING

PART 1 - GENERAL

1.1 APPLICABLE PUBLICATIONS: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

1.1.1 Federal Specifications (Fed. Spec.):

TT-P-645	Primer, Paint, Zinc-Chromate, Alkyd Type
WW-V-35B & Am-1	Valve, Ball
WW-V-54D & Am-3	Valve, Gate, Bronze (125, 150 and 200 Pound, Threaded Ends, Flanged Ends, Solder Ends, and Brazed Ends, for Land Use)
WW-V-58	Valves, Gate, Cast-Iron: Threaded and Flanged (For Land Use)
WW-V-1967 & Am-1	Valve, Butterfly (Threaded Ends and Solder Ends) Brass or Bronze

1.1.2 American National Standards Institute (ANSI) Publications:

A 21.10-77	Gray Iron and Ductile Iron Fittings, 3 Inch Through 48 Inch For Water and Other Liquids
A 21.15-79	Flanged Cast-Iron and Ductile-Iron Pipe With Threaded Flanges
B 16.1-75	Cast Iron Pipe Flanges and Flanged Fittings (Class 25, 125, 250 and 800 Pounds)
B 16.3-77	Malleable Iron, Screwed Fittings (Class 150 and 250 Pounds)
B 16.39-77	Malleable Iron, Threaded Pipe Unions (Class 150, 250 and 300)
B 16.5-81	Pipe Flanges and Flanged Fittings
B 61-80	Steam or Valve Bronze Castings
B 62-80	Composition Bronze or Ounce Metal Castings

1.1.3 American Society for Testing and Materials (ASTM) Publications:

A53-81	Pipe, Steel, Black and Hot-Dipped, Zinc-Coated Welded and Seamless
A120-81	Pipe, Steel, Black and Hot-Dipped, Zinc-Coated (Galvanized) Welded and Seamless, For Ordinary Uses
A193-81	Alloy-Steel and Stainless Steel Bolting Materials for High-Temperature Service
A194-81	Carbon and Alloy Steel Nuts for Bolts For High Pressure and High Temperature Service

1.1.4 American Water Works Association (AWWA) Publications:

C 504-80	Rubber Seated Butterfly Valves
C 600-77	Installation of Gray and Ductile Cast Iron Water Mains and Appurtenances
C 601-81	Disinfecting Water Mains
C 800-66	Threads for Underground Service Line Fittings - With Appendix On Collected Standards For Service Line Materials

1.1.5 American Welding Society (AWS) Publications:

D 1.1-81	Structural Welding Code Steel
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1.2 GENERAL REQUIREMENTS: This section covers the provision of new water softeners and piping as indicated. Removal of the existing softeners is specified under Section, "Demolition and Removal."

1.3 LAYOUT DRAWINGS: Submit for approval drawings for the layout of each new water softener and its associated piping system. Drawings shall show both the existing systems as well as the new systems. Indicate all material types, fittings, valves, corporation stops and other accessories on the drawings. Do not deliver pipe fittings and accessories to the site until layout drawings have been approved.

1.4 MANUFACTURER'S DATA: Submit manufacturer's installation instructions for the water-softeners, including final connections into the softeners.

1.5 STANDARDS COMPLIANCE: Submit certificates from the manufacturer attesting that each of the following items conform to all requirements of this specifications and of reference publications.

- a. Joints and Coupling
- b. Valves
- c. Corporation Stops
- d. Pipe and Fittings

PART 2 - MATERIALS

2.1 PIPE: Piping 4 inches in diameter and larger shall be ductile iron or black steel, except as otherwise specified herein. Piping 3 inches in diameter and smaller shall be galvanized steel.

2.1.1 Ductile Iron Pipe: Shall be flanged pipe conforming to ANSI A21.15. Pipe shall be outside coated and AWWA C104 cement mortar lined.

2.1.1.1 Fittings for ductile iron pipe shall conform to the applicable requirements of ANSI A21.10 (AWWA C110) and may be either cast gray or ductile iron. Fittings shall have pressure rating at least equivalent to that of the pipe. Fittings shall have cement mortar lining equivalent to that of the pipe lining and outside coatings as specified for the pipe.

2.1.1.2 Flanged Joints: Ends of pipe and fittings shall be provided with cast-iron flanges conforming to the applicable requirements of ANSI A21.15. Bolts, nuts, and gaskets for flanged connections shall conform to the recommendations in the Appendix to ANSI A21.15. Gaskets shall be plain rubber, 1/8-inch thick.

2.1.2 Black Steel Pipe: Piping shall be steel pipe with flanged end connections. Sections of pipe between flanged end connections shall be continuous; butt welding of short sections of pipe to form a longer section of pipe will not be permitted. Fabrication of pipe fittings by welding will not be permitted, other than the welding of the flanges to the fittings. Pipe shall conform to ASTM A 53 or ASTM A 120, Schedule 40, black steel, with butt welding end connections. Weld ANSI B16.5 Class 150 steel flanges to each end of the steel pipe.

2.1.2.1 Flanged Fittings: ANSI B16.5, Class 150 or ANSI B16.1, Class 125. Provide ASTM A 193, Grade B7 bolts and ASTM A 194, Grade 7 nuts.

2.1.3 Galvanized Steel Pipe: ASTM A 53 or ASTM A 120, Schedule 40, zinc-coated, threaded end connections. Provide ANSI B16.3 zinc-coated threaded fitting and ANSI B16.39 zinc-coated threaded unions.

2.2 VALVES:

2.2.1 Valves: Provide valves suitable for minimum of 125 psig and minimum of 180 degrees F hot water. Valves shall have flanged end connections, except sizes smaller than 2.5 inches may have threaded end connections with a union on all but one side of the valve. Copper alloy and bronze valve body shall be ASTM B61 or ASTM B62 copper alloy. Ball valves and butterfly valves may be provided in lieu of gate valves. Ball valves shall be used in lieu of plug valves.

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2.2.1.1 Gate Valves: Fed. Spec. WW-V-54, Class 125, except sizes 2.5 inches and larger shall conform to Fed. Spec. WW-V-58, Class 125.

2.2.1.2 Butterfly Valves: Fed. Spec. WW-V-1967, Type B, except sizes 2.5 inches and larger shall conform to AWWA C504 with wafer body designed for installation between ANSI B16.1, Class 125 flanges. Valves shall have two-position lever handles.

2.2.1.3 Ball Valves: Fed. Spec. WW-V-35, full port design, copper alloy, except sizes 2.5 inches and larger shall be cast-iron. Valves shall have two-position lever handles.

2.3 CORPORATION STOPS: Shall be ground key type; shall be made of bronze conforming to ASTM B61 or B62; and shall be suitable for the working pressure of the system. Ends shall be suitable for solder-joint, flanged lead joint, or flared tube compression type joint. Threaded ends for inlet and outlet of corporation stops shall conform to AWWA C800.

2.4 WATER SOFTENER: Shall be a Permutit Spiractor, Model 12S, as manufactured by Permutit Company, Inc. notwithstanding any other provision of this contract, no other product will be acceptable. Manufacturer's representative is Mercer and Associates, 360 Carmel Commonn's Office Park, Pineville, North Carolina 28134, Telephone (704) 542-5588.

PART 3 - INSTALLATION

3.1 PIPING:

3.1.1 General: Each new piping system shall be installed similar to the existing system at each softener, using all new materials. The new system shall have, as a minimum, all control and functions as the existing system. Pipe, fittings, valves and accessories will be carefully inspected before and after installation and those found defective will be rejected. Pipe and fittings shall be free from fins and burrs. Before being placed in position, pipe, fittings, valves, and accessories shall be cleaned, and shall be maintained in a clean condition. Proper facilities shall be provided for placing sections of pipe into position. Pipe shall be cut accurately to measurements established at the site and shall be worked into place without springing or forcing. Piping that does not allow sufficient space for proper installation of jointing material shall be replaced by one of proper dimensions. Pipe shall be installed vertical and horizontal, and parallel to building walls. Pipe shall be supported at its proper elevation, care being taken to secure firm support. Hangers shall be provided where necessary and where indicated on the project drawings for proper support.

3.1.2 Handling: Pipe, fittings, valves, and other accessories shall be handled in such manner as to insure delivery in sound, undamaged condition. Special care shall be taken not to injure pipe coatings or linings. If coatings or linings of pipe and fittings are damaged, satisfactory repairs shall be made at no extra cost to the Government. Pipe shall be carried and not dragged.

3.1.3 Manufacturer's Recommendations: Where installation procedures or any part thereof are required to be in accordance with the recommendations of the manufacturer of the material being installed, printed copies of these recommendations shall be furnished to the Contracting Officer prior to installation. Installation of the item will not be allowed to proceed until the recommendations are received. Failure to furnish these recommendations can be cause for rejection of the material.

3.1.4 Special Installation Requirements: Cast-iron pipe shall be installed in accordance with AWWA-C-600 except as modified herein.

3.2 JOINTS:

3.2.1 Flanged Joints: Flanged-joints shall be made up tight, care being taken to avoid undue strain on flanges, valves, fittings, pumps, and other equipment and accessories.

3.2.2 Threaded Connections: Jointing compound for pipe threads shall be polytetrafluoroethylene (PTFE) pipe thread tape, pipe cement and oil, or PTFE powder and oil; apply only on male threads. Provide exposed ferrous pipe threads with one coat of Fed. Spec. TT-P-645, primer applied to a minimum dry film thickness of one mil.

3.2.3 Pipe Hangers (Supports): Provide additional hangers to support the concentrated loads in piping between hangers, such as for flanged valves.

3.3 IDENTIFICATION TAGS AND PLATES: Valves shall be provided with tags or plates numbered and stamped for their usage. Plates and tags shall be of brass or suitable nonferrous material and shall be securely mounted or attached.

3.4 WELDING:

3.4.1 Perform all welding, welding inspection, and corrective welding, in accordance with AWS D1.1. Welding shall be by the metallic arc process and shall be accomplished so as to prevent permanent distortion of the connected parts. Weld continuously along the entire area of contact.

3.5 WATER SOFTENERS:

3.5.1 Installation of the water softeners, including final connections to the softeners, shall be as recommended by the water softener manufacturer.

3.6 DISINFECTION: New water piping and equipment and existing water piping affected by the Contractor's operations shall be disinfected in accordance with AWWA C601. Piping systems shall be filled with solution containing a minimum of 50 parts per million of available chlorine and allowed to stand for a minimum period of 24 hours. Solution shall be flushed from system with clean water until maximum residual chlorine content is not greater than 0.2 parts per million.

4. FIELD TESTING AND INSPECTION:

4.1 General: All work shall be proved to be in first class condition and constructed properly in accordance with the drawings and specifications. All defects and leaks disclosed by the tests shall be corrected to the satisfaction of the Contracting Officer, and all tests repeated until the equipment is in proper working order.

4.2 Each softener and its associated piping shall be tested in operation to insure proper operation of all equipment. All control valves shall be fully opened and closed under pressure. Water, sand, and lime for the testing shall be furnished by the Government, at no cost to the Contractor.

*** END OF SECTION ***

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SUPERSEDES DECISION

STATE: NORTH CAROLINA
 COUNTIES: FRANKSWICK, CARTERET, COLUMBUS, CRAVEN, DUPLIN, JONES, LENOIR, NEW HAMOVER,
 GNSLOW, POLICO, AND FENDER.

DECISION NUMBER: NC81-1201

DATE: DATE OF PUBLICATION

Supersedes Decisions Number NC81-1181, dated January 23, 1981, 46 FR 7745; Number
 NC81-1182, dated January 23, 1981, 46 FR 7744; Number NC81-1147, dated December 30,
 1980, 45 FR 86200.

DESCRIPTION OF WORK: BUILDING CONSTRUCTION PROJECTS (does not include single family
 homes and apartments up to and including four stories).

	Basic Hourly Rates	Fringe Benefits Payments			
		H & W	Pensions	Vacation	Education and/or Appr. Tr.
ASBESTOS WORKERS	\$ 7.26				
BRICKLAYERS	7.10				
CARPENTERS	6.02				
CEMENT MASONS	5.68				
DRYWALL MECHANICS	7.00				
ELECTRICIANS	6.22				
ELECTRONIC TECENICIANS	4.50				
GLAZIERS	5.38				
IRONWORKERS	6.66				
LABORERS:					
Laborers - General	3.78				
Pipe layers	4.94				
MILLWRIGHTS	9.45				
PAINTERS	5.00				
PLASTERERS	6.00				
PLUMBERS & PIPEFITTERS	6.52				
ROOFERS	5.91				
SHEET METAL WORKERS	6.38				
SOFT FLOOR LAYERS	7.00				
SPRINKLER FITTERS	7.95				
TILE SETTERS	6.00				
TRUCK DRIVERS	3.90				
<u>WELDERS</u> - Rate for craft.					
<u>POWER EQUIPMENT OPERATORS:</u>					
Asphalt raker	4.27				
Backhoe	5.32				
Bulldozer	5.25				
Crane	6.80				
Distributor	4.70				
Fork lift	6.50				
Front end loader	4.50				
Motor grader	5.36				
Paver - screed	4.25				
Roller	5.00				
Scraper - pan	4.60				
Tractor	5.00				

Unlisted classifications needed for work not included within the scope of the
 classifications listed may be added after award only as provided in the labor
 standards contract clauses (29 CFR, 5.5 (a) (1) (ii)).

