

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. AMENDMENT/MODIFICATION NO. NO. 4  
2. EFFECTIVE DATE 28 Feb 80  
3. REQUISITION/PURCHASE REQUEST NO.  
4. PROJECT NO. (If applicable) Spec. No. 05-79-2646 (Rev.)

5. ISSUED BY OFFICE 406  
Officer in Charge of Construction  
Jacksonville, North Carolina Area  
Building 1005, Marine Corps Base  
Camp Lejeune, North Carolina 28542

7. CONTRACTOR NAME AND ADDRESS CODE FACILITY CODE 1800 AREA  
8. AMENDMENT OF SOLICITATION NO. N62470-79-B-2646  
DATED 29 Nov 1979 (See block 9)  
MODIFICATION OF CONTRACT/ORDER NO.  
DATED (See block 11)

9. THIS BLOCK APPLIES ONLY TO AMENDMENTS OF SOLICITATIONS  
 The above numbered solicitation is amended as set forth in block 12. The hour and date specified for receipt of Offers is extended,  is extended,  is not extended.  
Offerors must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation, or as amended, by one of the following methods:  
(a) By signing and returning \_\_\_\_\_ copies of this amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted, or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE ISSUING OFFICE PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If, by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided such telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

10. ACCOUNTING AND APPROPRIATION DATA (If required)

11. THIS BLOCK APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS  
(a)  This Change Order is issued pursuant to \_\_\_\_\_  
The Changes set forth in block 12 are made to the above numbered contract/order.  
(b)  The above numbered contract/order is modified to reflect the administrative changes (such as changes in paying office, appropriation data, etc.) set forth in block 12.  
(c)  This Supplemental Agreement is entered into pursuant to authority of \_\_\_\_\_  
It modifies the above numbered contract as set forth in block 12.

12. DESCRIPTION OF AMENDMENT/MODIFICATION  
RESTORE CATHODIC PROTECTION TO WATER TANKS  
at the  
Marine Corps Base, Camp Lejeune, North Carolina  
BIDS WILL BE OPENED 1 APRIL 1980 AT 2:00 P.M.

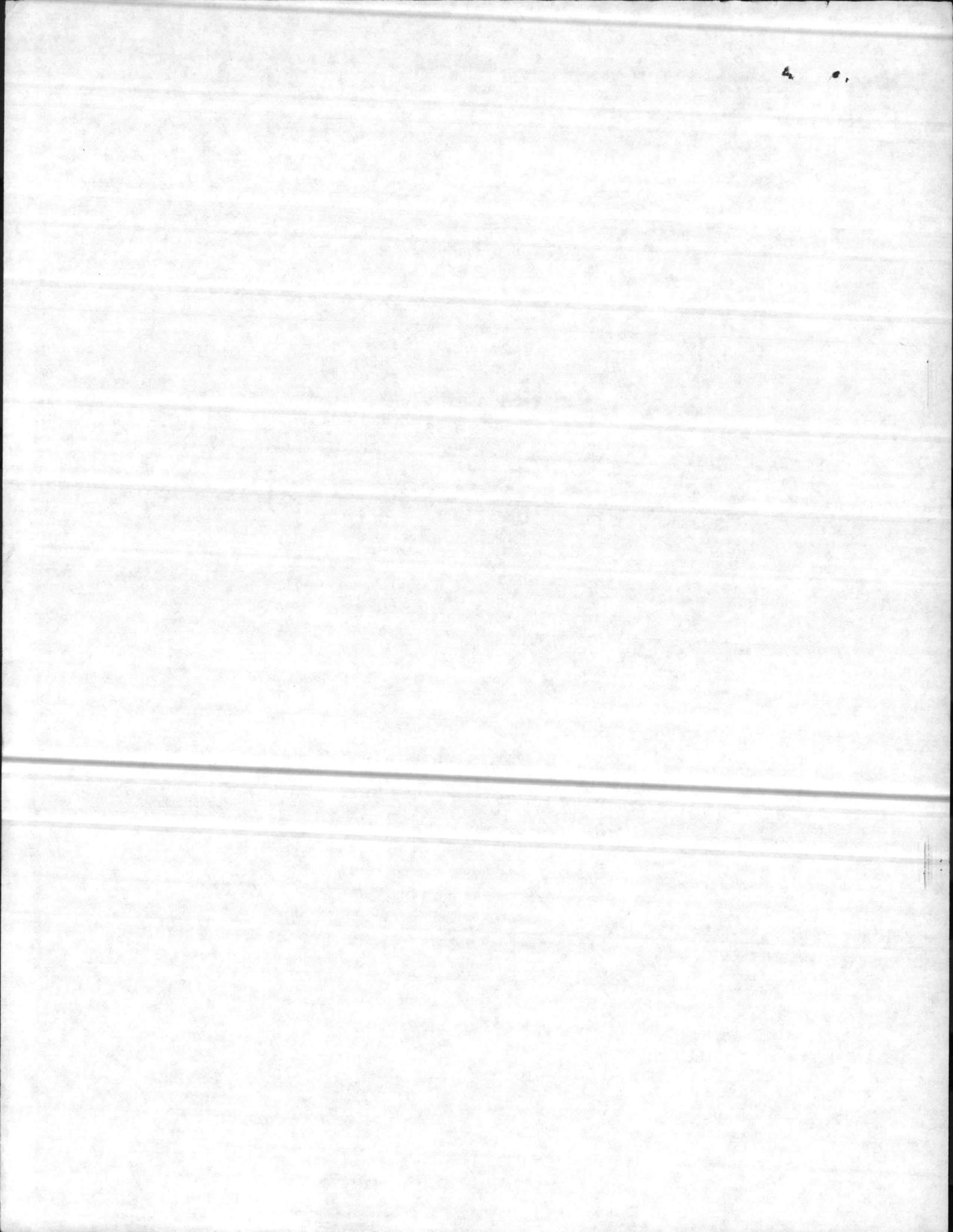
NAVFAC SPECIFICATION NO. 05-79-2646 (Rev.) SHALL SUPERSEDE THE PREVIOUSLY ISSUED:  
(a) NAVFAC SPECIFICATION NO. 05-79-2646  
(b) NAVFAC DWG. NO. 4049315  
Enclosed herewith are the revised documents: (a) NAVFAC SPEC. NO. 05-79-2646 (Rev.)  
(b) NAVFAC DWG. NO. 4049315, Revised 1/28/80  
On the Title Page, Remove "NAVFAC CONTRACT NO. N62470-79-2646 (Rev.)" and insert  
"NAVFAC CONTRACT NO. N62470-79-B-2646" therefor.  
NEW BID FORM (3 copies) IS ATTACHED.

Except as provided herein, all terms and conditions of the document referenced in block 8, as heretofore changed, remain unchanged and in full force and effect.

13.  CONTRACTOR/OFFEROR IS NOT REQUIRED TO SIGN THIS DOCUMENT  CONTRACTOR/OFFEROR IS REQUIRED TO SIGN THIS DOCUMENT AND RETURN \_\_\_\_\_ COPIES TO ISSUING OFFICE

14. NAME OF CONTRACTOR/OFFEROR BY \_\_\_\_\_  
(Signature of person authorized to sign)  
17. UNITED STATES OF AMERICA BY M. L. ENNETT  
By direction (Signature of Contracting Officer)

15. NAME AND TITLE OF SIGNER (Type or print) 05-79-2646 (Rev.) AMENDMENT NO. 4 - Page 1  
16. DATE SIGNED  
18. NAME OF CONTRACTING OFFICER (Type or print) V. PODBIELSKI, CDR, CEC, USN for Commander, Naval Facilities  
19. DATE SIGNED 28 Feb 80



NOTICE:

Bids to be opened at  
**APR 01 1980** at the office of  
Officer in Charge of Construction  
Jacksonville, North Carolina Area  
Building 1005, Marine Corps Base  
Camp Lejeune, North Carolina 28542

NAVFAÇ  
SPECIFICATION  
NO. 05-79-2646 (Rev.)

NAVFAÇ CONTRACT  
NO. N62470-79-2646 (Rev.)

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RESTORE CATHODIC PROTECTION TO WATER TANKS

at the

Marine Corps Base, Camp Lejeune, North Carolina

HQMC PROJECT LE033M

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DESIGN BY: Henry von Oesen and Associates, Inc.  
Consulting Engineers & Planners  
611 Princess Street/P. O. Drawer 2087  
Wilmington, North Carolina 28402

SPECIFICATION PREPARED BY:

Mechanical Engineer: Glenn A. Davis, P. E.  
Electrical Engineer: R. Duncan McFadyen, P. E.

APPROVED BY: James R. Benson, Jr., P. E.

05-79-2646 (Rev.)

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SECTION 00101  
BIDDING INFORMATION

1. CONTENTS: This Invitation for Bids, IFB No. N62470-B-2646 consists of the following documents:

- a. Bid Instruction Documents
  - (1) Invitation for Bids (Standard Form 20, Jan 1961 Ed.)
  - (2) Bidding Information
  - (3) Instructions to Bidders, dated January 1975
    - (a) Change the date from "January 1975" to "April 1977"
    - (b) In the Table of Contents, Paragraph 7, and in Paragraph 7, change "(1974 SEP)" to "(1977 APR)"
    - (c) At the end of Paragraph 7, add the following:  
"NOTE: The term "telegram" includes "mailgram"
    - (d) In the parenthetical expression at the beginning of Paragraphs 13 and 14, delete \$2000 and insert \$25,000
- b. Bid Submittal Documents
  - (1) Bid Form (Standard Form 21, Dec 1965 Ed.)
  - (2) Representations and Certifications (Standard Form 19B, Jun 1976 Ed.), including Appendix "A" dated 1 SEP 1978
  - (3) Bid Guaranty
- c. Contract Documents
  - (1) Construction Contract (Standard Form 23, Jan 1961 Ed.)
  - (2) Performance Bond (Standard Form 25, Jun 1967 Ed.)
  - (3) Payment Bond (Standard Form 25A, Jun 1964 Ed.)
  - (4) Labor Standards Provisions (Construction Contract), including Alterations Clause No. 13, dtd SEP 1978
  - (5) General Provisions (Construction Contract), including Clause 109 ALTERATIONS (3-79)
  - (6) NAVFAC Specification No. 05-79-2646
  - (7) Wage Determination Decision
  - (8) Drawings identified in Section 01011, Division 1, of the specification

2. BIDS:

2.1 INSTRUCTION TO BIDDERS: Instruction 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. Envelope containing bids must be sealed.

2.2 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 and Bid Guaranty in accordance with the Bid Instruction Documents listed in paragraph 1.a hereinbefore upon the following item(s):

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 RESTORE CATHODIC PROTECTION TO WATER TANKS Specification No. 05-79-2646" should be forwarded immediately to the office to which the 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 office of the Officer in Charge of Construction, Jacksonville, North Carolina Area, 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 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 DO-C2 priority rating for procurement of critical materials. See General Provision 48, "PRIORITIES, ALLOCATIONS AND ALLOTMENTS".

5. INQUIRIES: All questions concerning the bidding or any other phase of the plans and specifications occurring prior to bid opening shall be presented to the Design Division, Public Works Department, Marine Corps Base, Camp Lejeune, North Carolina, telephone 919-451-5507. Questions requiring interpretation of drawings and specifications must be submitted at least 10 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.

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

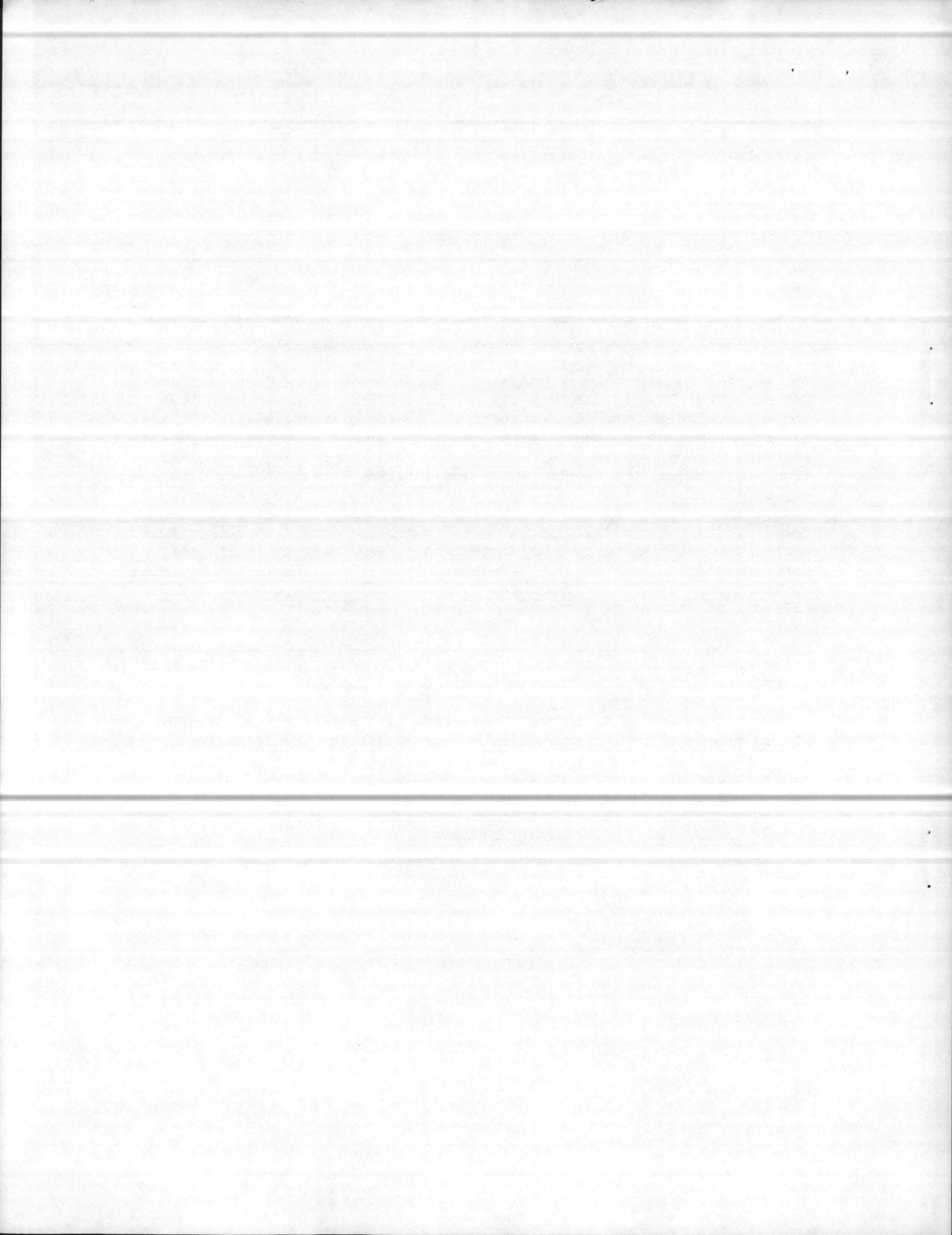
The Acquisition Management Systems and Data Requirements Control List. DOD Directive 5000.19L, Volume II, may be ordered on the DD Form 1425. The Department of Defense Index of Specifications and Standards (DODISS) may be purchased from the Superintendent of Documents, U. S. Government Printing Office, 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 Description. 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 Department  
Design Division  
Building 1005, Marine Corps Base  
Camp Lejeune, North Carolina

7. 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.



DIVISION I. GENERAL REQUIREMENTS

SECTION 01011. GENERAL PARAGRAPHS

1. GENERAL INTENTION: It is the declared and acknowledged intention and meaning to provide and secure restoration of cathodic protection to water tanks complete and ready for use.

2. GENERAL DESCRIPTION: The work includes complete replacement of 15 anode systems, three rectifier units, the rebuilding of three rectifier units, calibration and restoring to service all 15 systems and incidental related work.

3. LOCATION: The work shall be located at Marine Corps Base, Camp Lejeune, North Carolina approximately as shown. The exact location will be indicated by the Contracting Officer. "Officer in Charge of Construction (OICC)" and "Contracting Officer" are used interchangeably in this specification and have the same meaning.

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 180 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 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 5, "Termination for Default - Damages for Delay - Time Extensions", and Clause 80, "Damages for Delay - Defense Materials System and Priorities" of the General Provisions the sum of \$20.00 for each day of delay.

6. DRAWING 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.

<u>NAVFAC DWG. NO.</u>	<u>SHEET NO.</u>	<u>TITLE</u>
<u>4049314</u>	<u>1</u>	<u>Site Location Plan</u>
<u>4049315</u>	<u>2</u>	<u>Elevation and Details, revised 1/28/80</u>

7. FACTORY INSPECTION: (See Clause 10 of the General Provisions.) Factory inspection of material and equipment for which tests at the place of manufacture are required in reference specifications will be waived if notarized copies of factory reports are furnished that show compliance with the specification requirement. Factory inspection will be required only where specified herein or in the technical sections of this specification. The Government reserves the right to charge to the Contractor any additional cost of Government inspection and tests when materials and equipment are not ready at the time inspection and tests are requested by the Contractor.

8. MINIMUM WAGE RATES AND OTHER LABOR STANDARDS: The Contractor shall pay mechanics and laborers employed or working directly upon the site of the work, wage rates not less than those contained in the attached wage determination decision of the Secretary of Labor. Rates for Water and Sewer Construction shall apply to all work in this contract. The wage rates are attached to the back of this specification.

9. NORTH CAROLINA SALES AND USE TAX IS REQUIRED. (See also section entitled "Additional General Paragraphs").

10. SCHEDULING THE WORK: Notwithstanding the requirements of Clause 62 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 Clause 62, 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 water systems 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 normal system operations. In no case shall there be more than one elevated tank out of service at any one time. Maximum down time for each tank shall be seven days. Permission to isolate and drain the elevated tanks shall be requested for each tank 48 hours in advance, and approval from the Contracting Officer shall be received before the tank is taken out of service.

11. 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 examined at the office of the Contracting Officer or be ordered from the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402.

b. Department of the Army, Corps of Engineers, "General Safety Requirements", which may be examined at the office where bids are being received or may be purchased from the Superintendent of Documents, U. S. Government Printing Office, Stock No. 008-022-00106-9.

c. General Provisions, Clause 45.

12. TECHNICAL PUBLICATIONS: The Contractor shall furnish to the Contracting Officer three copies each of installation, operation maintenance manuals and parts list for the rectifier unit.

12.1 Maintenance and operation manual shall be furnished to the Contracting Officer for approval. The manual shall be mounted in flexible binders with oil-resistant covers and shall contain, but not be limited to, installation and operating instructions, maintenance procedures, illustrations, drawings, detailed descriptions, tests, adjustments, safety precautions, and parts list.

12.2 Parts list, giving part numbers and prices for the equipment furnished, shall be submitted to the Contracting Officer as soon as practicable after the award of the contract, but not later than 90 days after notice of award has been received.

13. TRAILER 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.

14. SCHEDULE OF PRICES: The original and seven copies of the Schedule of Prices shall be submitted to the Contracting Officer for approval in accordance with the General Provisions. Pursuant to Clause 7 of the General Provisions, payments will not be made until the Schedule of Prices has been submitted and approved.

15. 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. Contractor's Monthly Estimate for Voucher (5ND GEN 5265/1)

c. Affidavit to Accompany Invoice (5ND LANTDIV 4-4235/4)

(Rev 1/68)

Forms will be furnished by the Officer in Charge of Construction. Monthly invoices and supporting forms for work performed through the 15th of the month shall be submitted to the Officer in Charge of Construction by the 20th of the month in the following quantities:

- a. Contractor's Invoice - Original and five copies
- b. Contractor's Monthly Estimate for Voucher - Original and two copies shall be required on all jobs where there is a Schedule of Prices.
- c. Affidavit - Original.

16. GOVERNMENT-FURNISHED WORK AND EQUIPMENT: The Government will furnish water and electricity free of charge for pursuance of the work under this contract.

17. 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 equipment and/or 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/or 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. Leave the date of acceptance and inspector's signature blank until the project is accepted for beneficial occupancy. The tag shall show the following information:

EQUIPMENT WARRANTY TAG

Type of Equipment \_\_\_\_\_  
Accepted Date \_\_\_\_\_  
Warranted Until \_\_\_\_\_  
Under Contract No. N62470- \_\_\_\_\_  
Inspector's Signature \_\_\_\_\_

STATION PERSONNEL TO PERFORM ONLY OPERATIONAL MAINTENANCE

## 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.

5. **AS-BUILT DRAWINGS:** On completion 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, and delivered to the Contracting Officer. 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 and/or methods 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.

6. **PRINTS FURNISHED TO CONTRACTOR:** Six copies of the project specification, and six sets of the drawings accompanying the specification, will be furnished the Contractor. Additional sets of the specifications and drawings can be obtained, if required, by application to the Contracting Officer, providing that the need therefor is justified to the satisfaction of the Contracting Officer.

7. **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. The Base Telephone Officer, phone 451-2531, will show the Contractor approximate locations of all buried telephone cables after receiving 10 days' notice. The locations of underground utilities shown is only approximate and the information is incomplete.

8. **QUARANTINE FOR IMPORTED FIRE ANT (7/76).** All of Onslow, Jones and Carteret 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 and the Marine Corps Air Station (Helicopter), New River, which are to be

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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 authorized imported fire ant inspector:

(1) Bulk soil/

(2) Used mechanized soil-moving equipment.

(3) Any other products, articles, or means of conveyance 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 shall be obtained from the Officer in Charge of Construction (OICC), 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 directed.

9. EMERGENCY MEDICAL CARE. Only emergency medical care is available by Government facilities at Marine Corps Base, Camp Lejeune to 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.

#### 10. NORTH CAROLINA SALES AND USE TAX.

(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 type contract as defined in the Armed Services Procurement Regulation, the contract price includes North Carolina 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 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:

(1) The Contractor shall furnish the Contracting Officer a certified statement setting forth the cost of the materials purchased from each vendor and the amount of North Carolian 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 sales and use taxes paid thereon. Such statement shall also include the cost of any tangible personal property withdrawn from the Contractor's warehouse stock and the amount of North Carolina sales or use tax paid thereon by the Contractor. 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 statement 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 sales and use taxes aggregating \$ \_\_\_\_\_ 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 invoices covering the purchases, the total amount of the invoices of each vendor, the North Carolina sales and use taxes paid thereon, and the cost of property withdrawn from warehouse stock and North Carolina sales or use taxes paid thereon are as set forth in the attachments hereto.

## SECTION 01401. QUALITY CONTROL

1. **APPLICABLE PUBLICATIONS:** The following publications of the issues listed below, but referred to thereafter by basic designation only, form a part of this specification to the extent indicated by the references thereto:

American Society for Testing and Materials (ASTM)

ASTM E329-72 Inspection and Testing Agencies for Concrete, Steel, and Bituminous Materials as Used in Construction

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

### 3. DEFINITIONS:

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.

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

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.

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.

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.

3.6 **Certified Test Reports:** Certified test reports are reports of tests signed by a qualified professional attesting that the test 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.

3.7 **Certified Inspection Reports:** Certified inspection reports are those signed by approved inspectors attesting that the items inspected meet the specification requirements other than any exceptions included in the report.

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

**4.1 SUBMITTALS:** Submittals shall be prepared in accordance with this specification and the General Provisions and submitted to the Contracting Officer for approval. Each submittal shall be accompanied with a cover letter signed by the Contractor. Each item proposed to be incorporated into the contract shall be clearly marked and identified in the submittals, and shall be cross-referenced to the contract drawings and specifications so as to identify clearly the use for which it is intended. Each sheet of submittal shall be stamped 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.

**4.2 SAMPLES:** As soon as practicable, and before installation, submit to the Architect-Engineer: Henry von Oesen and Associates, Inc., 611 Princess Street, Post Office Drawer 2087, Wilmington, North Carolina 28402, for approval, all samples required in the technical sections of this specification.

**4.3 SUBMITTAL OF 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 to Henry von Oesen and Associates, Inc., 611 Princess Street, Post Office Drawer 2087, Wilmington, North Carolina 28401, all 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. The Architect-Engineer for this project will review and approve for the Officer in Charge of Construction if the submittal complies with the contract requirements. One copy of transmittal form for all submittals shall be forwarded to the 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.

**4.4 Submittal Status Logs:** The Contractor shall maintain at the job site an up-to-date submittal status log showing the status of all submittals required by the contract. 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.

**4.5 Samples, shop drawings, manufacturer's data, certifications and data required of the Contractor:** 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. Before starting the fabrication or installation of any of this work, the Contractor shall submit to the Contracting Officer for and receive approval of, in accordance with the General Provisions, such drawings as may be required, including all items specified in the applicable paragraphs of the technical sections of this specification. Seven copies of all submittals to be approved by the Contracting Officer shall be forwarded.

**4.6 Identification:** All catalog cuts, shop drawings, samples and other data submitted for approval shall specifically identify the specification paragraph or contract drawing by number where each item submitted is required to be provided. All submittals shall be clearly marked in ink to indicate the specific item(s) submitted for approval. Samples shall be clearly labeled with strong tags, firmly affixed, or indelible markings to identify the contract number, contractor, manufacturer, and item name.

**4.7 Certified Test Reports:** Before delivery of materials and equipment, four certified copies of the reports of all tests listed in the technical sections and referenced publications 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 three years of submittal of the reports for approval. Test reports shall be accompanied by 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.

**4.8 Manufacturer's Certificates of Conformance or Compliance:** Manufacturer's certification furnished by the Contractor on items of materials and equipment incorporated into the work will be accepted only when this method will assure full compliance with the provisions of the contract, as determined by the Contracting Officer. 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 reports upon which the certifications are based. All certificates shall be signed by the manufacturer's official authorized to sign certificates of conformance or compliance.

**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 the 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 OICC.

**Tabulation of Tests:** In addition to the General Provisions requirements for CQC test reports, 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, including conforming, nonconforming, and repeated test results. 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.

**5. 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. 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.

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

**5.2 Factory Inspection:** Unless otherwise specified, the Contractor will arrange for factory inspection when required under the contract.

**5.3 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.

**5.4 Field Inspections and Tests by the Government:** Field inspections and tests conducted by the Government will be made in accordance with the General Provisions Clause entitled "Inspection and Acceptance".

**5.5 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 E329, except that the Contracting Officer will perform the function of paragraphs 3.4 and 3.5 therein in the absence of other government approval.

b. Testing laboratories performing work not in connection with concrete, steel, or bituminous materials shall comply with sections 3 and 4 of ASTM E329, except that the Contracting Officer will perform the functions of paragraphs 3.4 and 3.5 therein in the absence of other Government approval.

5.6 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.

5.7 Daily Report to Inspector: The "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.



#### 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 (c) should be completed by the contractor and must include all submittals that are required by the specifications. This partially completed form then becomes the submittal log portion of the CQC Plan.

3. As submittals are received and processed, the remaining columns are to be completed by the contractor.

4. In those instances where the contractor has approved the submittal under his contract responsibility, there may be a special Action Code indicated under column (f); e.g., "A/E", indicating approved as submitted and forwarded to the RCIC for record purpose.

5. In column (f) for those items requiring RCIC action (Action Code "D"), the reason for forwarding to the RCIC should be entered in the column (i), the Remarks column; e.g., gov't approval required; wetter requested because of variance, substitution, etc.

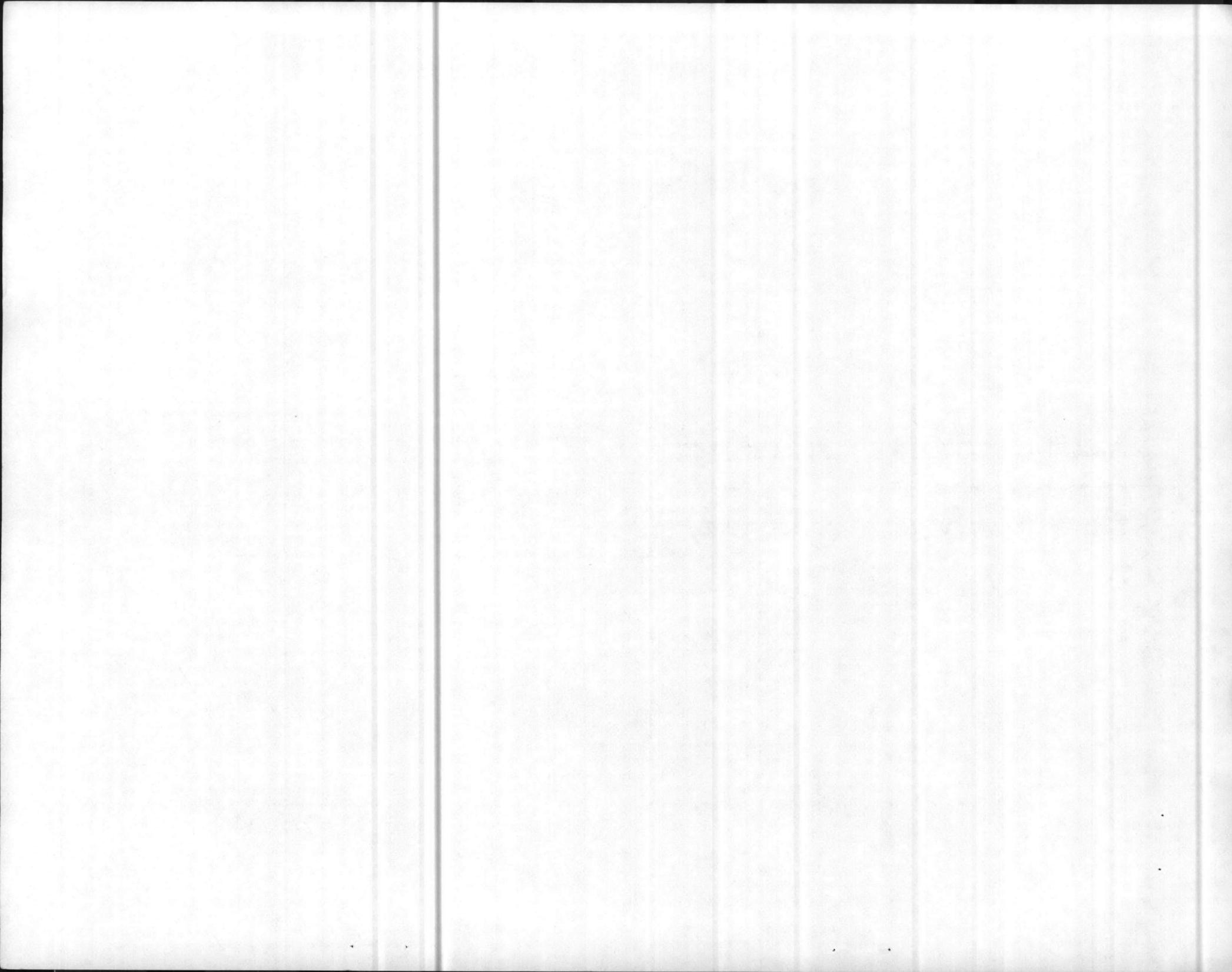
6. Where no government action is required, (for contractor review/approval items), there need be no entry in columns (d) and (e).

7. 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  
B - Approved as noted  
C - Disapproved

D - Forwarded to RCIC for action  
E - Forwarded to RCIC for record purpose



## SECTION 01501. ENVIRONMENTAL PROTECTION

1. ENVIRONMENTAL PROTECTION PLAN: The Contractor may be responsible for the preparation and submission of an Environmental Protection Plan. Prior to the commencement of the work, the Contractor may be required to 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, if so required.

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. PROTECTION OF NATURAL RESOURCES:

3.1 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.

3.2 Land Resources: The Contractor shall not remove, cut, deface, injure, or destroy trees or shrubs without written permission from the OICC. 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.

3.2.1 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.

3.2.2 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.

3.2.3 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. 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.

END

## DIVISION 2. DETAIL REQUIREMENTS

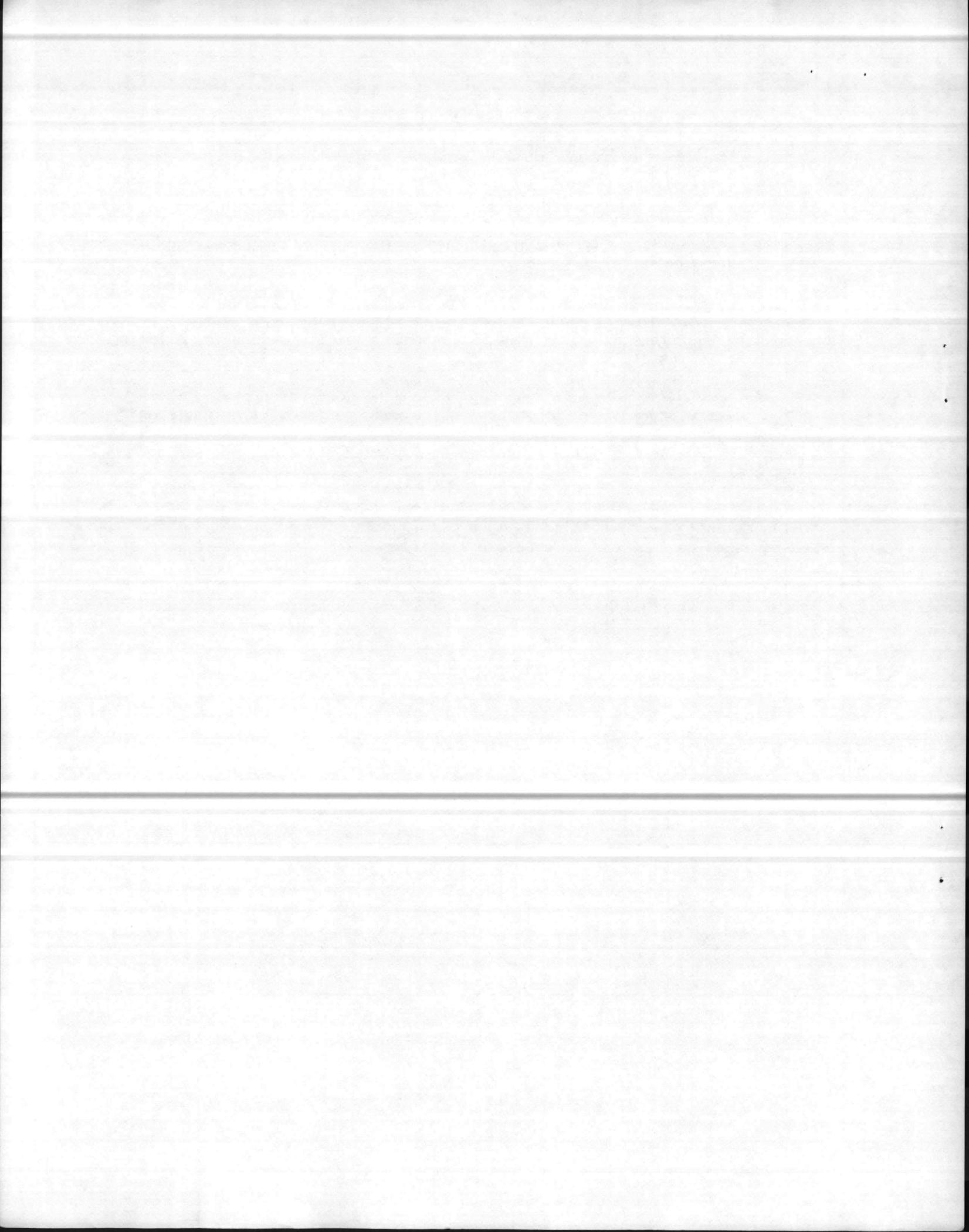
### SECTION 02110. DEMOLITION

1. GENERAL REQUIREMENTS: This section covers the general removal and disposition of existing cathodic protection equipment and wiring where indicated to be replaced.

2. SCHEDULING: No demolition shall begin until construction and demolition schedules are submitted in writing and approved. All necessary equipment and materials shall be at the site before the existing equipment is taken out of service.

3. PROTECTION OF MATERIALS AND WORK: The Contractor shall take all necessary precautions to insure against damage to existing equipment to remain in place, or to remain the property of the Government and any damage to such work shall be repaired or replaced, as approved, by the Contracting Officer at no additional cost to the government.

4. EQUIPMENT TO BE SALVAGED: Equipment and materials to be salvaged shall be removed so as to protect and avoid damage. Items to be salvaged consist of 3 complete rectifier units, transformers, rectifier stack and meters removed from the 3 units to be rebuilt. All salvaged materials shall be delivered to Building 20, the Hadnot Point Water Treatment Plant.



## SECTION 13100

### CATHODIC PROTECTION SYSTEMS

1. GENERAL REQUIREMENTS: The work includes providing new cathodic protection equipment, rebuilding existing cathodic protection equipment, adjustment, calibration, and restoring all cathodic protection systems to service.

2. APPLICABLE PUBLICATIONS: The publications listed below, but referred to thereafter by basic designation only, form a part of this specification to the extent indicated by the references thereto:

2.1 Federal Specifications (Fed. Spec.):

TT-E-489F      Enamel, alkyd, gloss (for exterior and interior  
& Am I          surfaces).

TT-P-645          Primer, paint, zinc-chromate, alkyd type.

2.2 Military Specifications (Mil. Spec.):

Mil-P-15328C    Primer (Wash), Pretreatment Blue (Formula No. 117-B  
& Am I          for Metals).

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

B 117-73          Salt Spray (Fog) Testing.

2.4 American Waterworks Association (AWWA) Standards:

C601-68          Disinfecting Water Mains.

2.5 National Association of Corrosion Engineers (NACE) Standards:

RP-01-69          Recommended Practice.

3. EQUIPMENT: New materials and equipment to be furnished and installed shall meet the following specifications:

3.1 Anodes and Underroof Wiring: The anodes shall be of 14.5% silicon cast iron and shall be of a size and configuration as required to provide uniform protection to the tank interior. In no case shall the size and number of anodes be less than that of the existing equipment. Anode connecting lead wire shall be No. 8-7 stranded polyethylene insulated. Lead wire connection to each anode shall be sealed to prevent contact with water at the junction of lead wire and anode. The anodes shall be safely and securely supported from the new insulators on the under side of the tank roof. Existing conduit from the rectifier

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unit to the tank roof shall remain in service. New wiring from the rectifier units to the anode system shall be provided. Anodes for the tank bowl and riser shall be placed on two separate circuits. Gaskets on all handholes shall be replaced with new butyl rubber gaskets.

3.2 Rectifier Units: The rectifier units shall consist of a power transformer, rectifier stack, instruments and internal wiring. The unit shall be provided with voltage adjustments to properly regulate the current required for corrosion control. The unit shall be designed for operation with 120 volt, 60 cycle, single phase AC supply, and shall be rated 20 amps, at 40 VDC output. The transformer shall be two-coil type having a primary winding of proper design for 110 to 120 volts AC. Taps shall be taken from the secondary windings of the transformer so that the output voltage may be increased or reduced by increments not exceeding 1.5 volts. The transformer shall be air-cooled and shall be housed so that adequate air-cooling is provided. The transformer shall be covered with at least three coats of moisture resistant electric varnish.

3.2.1 The rectifier stacks shall be of approved Selenium type as manufactured by Federal Telephone and Radio Corporation, General Electric Co., American Rectifier Corporation, or equal. The rectifier stacks shall have adequate cooling fins so that their normal temperature rise at rated capacity will not exceed that specified by NEMA. The rectifier stacks shall be air-cooled and shall be housed so that adequate air-cooling is provided.

3.2.2 Accurate meters shall be mounted on or inside the rectifier for indicating output of each DC circuit. Separate ammeters shall be provided for the bowl and tank riser electrodes. Each shall be identified. A voltmeter shall be provided to indicate the electrode potential. Meters shall have operating ranges adequate to indicate the actual field values at approximately mid scale.

3.2.3 The terminal board shall be of an electrical insulating material having suitable thickness and mechanical strength. All leads from the transformers and rectifier stacks shall be brought out to the terminal board so that the required voltage adjustments can be made by means of corrosion resistant connectors.

3.2.4 The wire used shall meet the requirements of the National Electrical Code for the allowable carrying capacities of copper wires.

3.2.5 The entire power unit shall be mounted in a corrosion-resistant metal cabinet suitable for outdoor use, adequately ventilated and with provision for locking.

4. REBUILDING OF RECTIFIER UNITS: The three rectifier units to be rebuilt shall be cleaned and shall receive new meters, transformers and rectifier stacks. Replacement components shall meet the specifications for the new rectifier units as specified hereinbefore. The enclosures shall be cleaned, primed and painted inside and out.

5. CALIBRATION AND TESTING: Prior to restoring each system to service, the Contractor shall check the system for electrical continuity and short circuits. All anode strings shall be checked and determined to be in their proper position and securely fastened, anchored and connected. The system shall then be calibrated to maintain a tank-to-water of -850 millivolts with respect to a copper-copper sulfate reference electrode. Calibration shall be done with the tank full. A report shall be submitted which indicates recommended current settings for each circuit. Calibration and testing shall be in accordance with NACE Standard RP-01-69.

6. MANUFACTURER'S DATA: Manufacturer's data shall be supplied for all new equipment and materials to be furnished and installed. Submittal data shall be submitted and approved before procurement, fabrication or delivery of such items to the job site. Partial submittals are not acceptable, and will be returned without review. Submittals for each manufactured item shall be manufacturer's descriptive literature, equipment drawings, diagrams, performance and characteristic curves, and catalog cuts. Each submittal shall include the manufacturer's name, trade name, catalog model or number, nameplate data, size, layout dimensions, capacity, specification reference, applicable Federal, Military and Industry specification references, and all other information necessary to establish contract compliance.

7. SHOP DRAWINGS: Shop drawings shall show types, sizes, accessories, elevations, floor plans, sectional views, installation details, elementary diagrams, and wiring diagrams. Wiring diagrams shall identify circuit terminals and shall indicate the internal wiring for each item of equipment and the interconnection between the items. Drawings shall also indicate adequate clearance for operation, maintenance and replacement of operating equipment devices. If any equipment is disapproved, the drawings shall be revised to show acceptable equipment and be resubmitted.

8. STANDARDS COMPLIANCE: When materials or equipment must conform to the standards of organizations such as the American National Standards Institute (ANSI), American Society for Testing and Materials (ASTM), National Electrical Manufacturer's Association (NEMA), and Underwriters Laboratories (UL), proof of such conformance shall be submitted to the Contracting Officer for approval. If an organization uses a label or listing to indicate compliance with a particular standard, the label or listing will be acceptable evidence, unless otherwise specified in the individual sections. In lieu of the label or listing, the Contractor shall submit a certificate from an independent testing organization, which is competent to perform acceptable test and is approved by the Contracting Officer. The certificates shall state that the item has been tested in accordance with the specified organization's test methods and that the item conforms to the specified organization's standard.

For materials and equipment whose compliance with organizational standards or specifications is not regulated by an organization using its own listing or label as proof of compliance, a certificate of compliance from the manufacturer shall be submitted for approval. The certificate shall identify the manufacturer, the product, and the referenced standard and shall simply state that the manufacturer certifies that the product conforms to all requirements of the project specification and of the referenced standards listed.

9. **DISINFECTION:** After the anode installation is completed and before restoring the elevated tank to service, the interior shall be disinfected with a solution containing not less than 50 parts per million of available chlorine. The chlorinating material shall be liquid chlorine gas-water mixture, calcium hypochlorite, sodium hypochlorite, or chlorinated lime and water mixture conforming to AWWA C601 and shall be introduced into the system in an approved manner. The disinfecting solution shall be allowed to remain in the tank for a minimum period of 24 hours or until the system is pronounced safe by the Contracting Officer. After the tank is drained and filled with potable water, samples will be taken and tests made. If the water is found unsafe for human consumption, the disinfection procedures specified hereinbefore shall be repeated.

10. **PAINTING OF EQUIPMENT:** All new rectifier cabinets and existing conduit shall be painted. Aluminum surfaces shall not be painted.

10.1 **Surface Preparation:** Dirt, rust, oil and grease shall be removed by wire brushing and wiping with dry cloth.

10.2 **Painting:** Surfaces shall receive one coat of pretreatment primer conforming to Mil. Spec MIL-P-15328 applied to a dry film thickness of 0.3 to 0.5 mil; one coat of primer conforming to Fed. Spec. TT-P-645 applied to a minimum dry film thickness of 1.0 mil; and two coats of enamel conforming to Fed. Spec. TT-E-489, applied to a minimum dry film thickness of 1.0 mil per coat.

10.3 **Optional Paint Systems:** Manufacturer's standard equipment painting systems may be provided in lieu of the systems specified hereinbefore provided the Contractor submits certification that the painting system applied will withstand 125 hours in a salt-spray fog test, except that equipment located outdoors shall withstand 500 hours in a salt spray fog test. Salt spray fog test shall be in accordance with ASTM B117, except that a 20 percent sodium chloride solution shall be used for the salt spray. Immediately after completion of the test, the paint shall show no signs of blistering, wrinkling or cracking; no loss of adhesion, and the specimen shall show no signs of rust creepage beyond 0.125 inch on either side of the scratch mark. The film thickness of the factory paint system applied on the equipment shall not be less than the film thickness used on the test specimen.

11. OPERATIONS AND MAINTENANCE MANUAL: The Contractor shall furnish an operation and maintenance manual for each new rectifier unit installed. Three copies of the complete manual bound in hardback binders or an approved equivalent shall be provided to the Contracting Officer. One manual shall be furnished prior to the time that system or equipment tests are performed, and the remaining manuals shall be furnished before the contract is completed. The following identification shall be inscribed on the cover: the words "OPERATING AND MAINTENANCE MANUAL", the name and location of the building, the name of the Contractor, and the contract number. The manual shall include the names, addresses and telephone numbers of each subcontractor installing equipment and systems, and of the local representatives for each item of equipment and each system. The manual shall have a table of contents and be assembled to conform to the table of contents with the tab sheets placed before instructions covering the subject. The instruction sheets shall be legible with large sheets of drawings folded in. The manual shall include, but not be limited to, the following: a system layout showing circuits, devices and controls; wiring and control diagrams with data to explain detailed operation and control of each component; a detailed description of the function of each principal component of the system; the procedure for operating; maintenance and overhaul instructions; safety precautions, diagrams, and illustrations; test procedures; performance data; and parts list. The parts list for equipment shall indicate the sources of supply, recommended spare parts, and the service organization which is reasonably convenient to the site. The manual shall be complete in all respects for all equipment, controls and accessories provided.

12. POSTED OPERATING INSTRUCTIONS: Operating instructions approved by the Contracting Officer shall be provided for each system and each principal piece of equipment for the use of operation and maintenance personnel. The operating instructions shall include wiring and control diagrams showing the complete layout of the entire system, including equipment, devices, and control sequence. Operating instructions shall be printed or engraved and shall be framed under glass or in approved laminated plastic and posted where directed by the Contracting Officer. Operating instructions shall be attached to or posted adjacent to each principal piece of equipment and shall include such instructions as start-up, proper adjustment, operating, safety precautions, procedure in the event of equipment failure, and any other necessary items of instruction as recommended by the manufacturer of the unit. Operating instructions exposed to the weather shall be made of weather-resisting materials or shall be suitably enclosed to be weather protected. Operating instructions shall not fade when exposed to sunlight and shall be secured to prevent easy removal or peeling.

13. DELIVERY AND STORAGE: Equipment and materials shall be properly stored and adequately protected and carefully handled to prevent damage before and during installation. Equipment and materials shall be handled, stored and protected in accordance with the

manufacturer's recommendations and as approved by the Contracting Officer. Damaged or defective items, in the opinion of the Contracting Officer, shall be replaced with new items at no cost to the Government.

14. CATALOGED PRODUCTS: Materials and equipment shall be the cataloged products of manufacturers regularly engaged in production of such materials or equipment and shall be manufacturer's latest standard design that complies with the specification requirements. When two or more units of the same type, class, and size of equipment are required, these units shall be products of a single manufacturer; however, the component parts of the system need not be the products of the same manufacturer. Each major component of equipment shall have the manufacturer's name, address and the model and serial number on a nameplate securely affixed in a conspicuous place; the nameplate of the distributing agent will be acceptable.

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**SUPERSEDEAS DECISION**

STATE: North Carolina  
 DECISION NUMBER: NC79-1125  
 Supersedes Decision No.: NC75-1078  
 in 40 FR-41367

COUNTY: Statewide  
 DATE: Date of Publication

DESCRIPTION OF WORK: Water and Sewer Construction Projects; and Heavy Construction Projects excluding Dam Construction Projects

	Basic Hourly Rates	FRINGE BENEFITS PAYMENTS		
		H & W	Pensions	Vacation
Brick Layers	4.47			
Carpenters	5.16			
Cement masons	5.01			
Fence erector	4.04			
Ironworkers:				
Structural	4.81			
Laborers:				
Asphalt raker	3.95			
Laborers, unskilled	3.37			
Pipelayers	3.98			
Powderman	5.95			
Manhole Builders	4.00			
Millwrights	4.00			
Painters	5.50			
Piledrivers	6.29			
Plumbers & Pipefitters	5.25			
Truck Drivers	3.67			
<u>POWER PLANT OPERATORS:</u>				
Asphalt pavers	3.98			
Backhoes	4.99			
Boom operators	4.00			
Bulldozers	4.50			
Compactors	3.75			
Cranes	5.87			
Draglines	5.50			
Drills:				
Air	4.81			
Well	4.50			
Loaders	4.48			
Mechanics	5.16			
Motor graders	4.25			
Oilers	3.75			
Pump operators	3.75			
Rollers	3.25			
Scrapers - Pans	4.25			
Screeds	4.08			
Tractors	4.75			
Trenching machine	5.00			

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

(Mod. #1 (44 FR 52577-September 7, 1979)  
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