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DEPARTMENT OF THE NAVY
NORTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
10 INDUSTRIAL HIGHWAY, MAIL STOP NO. 82
LESTER, PA 19113-2090

SPECIFICATION NO.
NO. 04-92-0056

CONTRACT NO.
N62472-92-C-0056

APPROPRIATION:
DERA

Naval Station Newport

ELDN 10403

Environmental Protection Department

INTERIM REMEDIAL ACTION
TANKS FARM #5 - TANKS #53 & #56
AT THE
NAVAL EDUCATION AND TRAINING CENTER
NEWPORT, RHODE ISLAND

SPECIFICATION PREPARED BY:

Architectural:

N/A

Civil:

R. Nault

Structural:

R. Moore

Electrical:

R. Haffeman

Mechanical:

J. Phillips

Submitted By:

C. Stopper

DATE: JANUARY 25, 1993

DESIGNED BY:

TRC ENVIRONMENTAL CORPORATION
5 WATERSIDE CROSSING
WINDSOR, CONNECTICUT

SPECIFICATION APPROVED BY: _____

DATE: _____

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 DEPARTMENT OF THE NAVY NFGS-01010C
 NAVAL FACILITIES 28 February 1991
 ENGINEERING COMMAND -----
 GUIDE SPECIFICATION Superseding NFGS-01010B (09/90)

SECTION 01010

GENERAL PARAGRAPHS
02/91

 NOTE: This guide specification consists of
 \@general contractual paragraphs@ required for use
 in all projects. Do not edit the paragraphs except
 to fill in the blanks where specific project
 information is required.

 NOTE: This revision "C" to NFGS-01010 amends the
 issue dated 30 September 1990 by revising
 "INSURANCE", and "SUBMITTALS" to accommodate the new
 Submittal Register.

PART 1 GENERAL

1.1 SUMMARY

 NOTE: The article "Summary" is not used by the
 Naval Facilities Engineering Command, except in
 specialized cases. Delete this article when editing
 for project specifications.

1.2 REFERENCE

The publication listed below form a part of this specification to the extent referenced. The publication is referred to in the text by the basic designated only.

CODE OF FEDERAL REGULATIONS (CFR)

\-41 CFR 60.4-\ Construction Contractors - Affirmative
 Action Requirements

1.3 SUBMITTALS

 NOTE: The "G" in asterisk tokens following each
 submittal item indicates Government approval and
 should be retained. Add "G" in asterisk tokens

following any added submittals that are determined to require Government approval. Submittal items not designated with a "G" will be approved by the CQC organization.

Submit the following in accordance with section \=01300=\, "Submittals."

1.3.1 *SD-18, Records*\

- a. *Report of subcontracts*\ *G*\
- b. *Work performed by Contractor*\ *G*\
- c. Certification of Contractor *required insurance*\ *G*\
- d. *Schedule of prices*\ *G*\
- e. *As-built drawings*\ *G*\
- [f. *As-built record of materials*\ *G*\]

1.3.1.1 [g. * Quantity surveys*\ *G*\] *Report of subcontracts*\

Provide, for contracts greater than \$10,000, in accordance with paragraph "Affirmative Action Compliance."

1.3.1.2 Work Performed by Contractor

Provide in accordance with the paragraph titled, "Description of Work Performed by the Contractor."

1.4 GENERAL INTENTION

NOTE: State the scope of work in the briefest terms, but do not give the classes of work involved or the location of the work, and do not make reference to the drawings or to other parts of the specification. Usually, the project title alone is sufficient.

It is the declared and acknowledged intention and meaning to provide and secure [✓], complete and ready for use.

a complete Ground Water Treatment Interim Remedial Action system

1.5 GENERAL DESCRIPTION

NOTE: Discuss the concept of the project and the work involved in sufficient detail so as to present a general picture which is self contained but does not refer to the drawings or to other parts of the specification.

The work includes [] and incidental related work.

1.6 LOCATION

The work shall be located at the [], approximately as shown. The exact location will be indicated by the Contracting Officer.

ground water extraction wells, piping, treatment systems for inorganic and organic contaminants contained in a building structure, utility service connectio

Naval Education and Training Center, Newport, Rhode Island

1.7 GOVERNMENT REPRESENTATIVES

- a. \&The work will be under the general direction of an officer of the Civil Engineer Corps, United States Navy or another officer or representative of the Government, designated in block 26 of Standard Form 1442. Except in connection with the Disputes Clause of this contract, this designated person has complete charge of and exercise full supervision over the work so far as it affects the interests of the Government.
- b. For the purposes of the Dispute Clause, the "Contracting Officer" is the Commander, Naval Facilities Engineering Command, or his representatives warranted for this purpose. Any claim submitted under the Dispute Clause shall be submitted to the Contracting Officer in care of the person designated in block 26 of Standard Form 1442 as the representative of the Contracting Officer authorized to receive the claim.
- c. The provisions of this paragraph or provisions elsewhere in this contract regarding supervision, approval, or direction by the Contracting Officer or the designated person shall not relieve the Contractor of responsibility for accomplishing the work, with regard to sufficiency or time of performance, except as other wise provided.&\

1.8 AFFIRMATIVE ACTION COMPLIANCE

NOTE: The wording of these paragraphs is prescribed by the listed FAR clause. It must be used in all construction contracts and cannot be changed except as indicated by blanks or brackets. In paragraph entitled "Performance of Work by the Contractor (APR 1984)," if the project involves housing, change "twenty (20)" to "fifteen (15)."

NOTE: Insert the applicable percentages and covered area from the Department of Labor Notice, as published in 45 FR 65979 (October 3, 1980 issue of the Federal Register).

Notice of requirement for affirmative action to ensure equal employment opportunity (Apr 1984):

(Applies when the amount of the contract is in excess of \$10,000.)

- a. The offeror's attention is called to the Equal Opportunity clause and the Affirmative Action Compliance Requirements for Construction clause of this solicitation.
- b. The goals for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

| Goals for minority participation for each trade | Goals for female participation for each trade |
|--|--|
|--|--|

BY ND

[____]

6.9

These goals are applicable to all the Contractor's construction work performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, the Contractor shall apply the goals established for the geographical area where the work is actually performed. Goals are published periodically in the Federal Register in notice form, and these notices may be obtained from any Office of Federal Contract Compliance Programs office.

- c. The Contractor's compliance with Executive Order 11246 as amended, and the regulations in \-41 CFR 60.4-\ shall be based on (1) its implementation of the Equal Opportunity clause, (2) specific affirmative action obligations required by the clause entitled "Affirmative Action Compliance Requirements for Construction," and (3) its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade. The Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor, or from project to project, for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, Executive Order 11246, as amended, and the regulations in \-41 CFR 60.4-\ . Compliance with the goals will be measured against the total work hours performed.
- d. The Contractor shall provide written notification to the Director, Office of Federal Contract Compliance Programs, within 10 working days following award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the--
 - (1) Name, address, and telephone number of the subcontractor;
 - (i) Employer identification number of the subcontractor;

- (2) Estimated dollar amount of the subcontract;
- (3) Estimated starting and completion dates of the subcontract; and
- (4) Geographical area in which the subcontract is to be performed.

(ND

e. As used in this Notice, and in any contract resulting from this solicitation, the "covered area" is [_____]. (FAR 52.222-23)

1.9 ORAL MODIFICATION

No oral statement by any person other than the Contracting Officer or his representative, as provided in the Contract Clause entitled "Changes," will in any manner or degree modify or otherwise affect the terms of this contract.

1.10 INSURANCE

1.10.1 Minimum Requirements

The Contractor shall procure and maintain during the entire period of performance under this contract the following minimum insurance coverage:

- a. Comprehensive general liability: \$500,000 per occurrence
- b. Automobile liability: \$200,000 per person; \$500,000 per occurrence, \$20,000 per occurrence for property damage
- c. Workmen's compensation: As required by Federal and State workers' compensation and occupational disease laws
- d. Employer's liability coverage: \$100,000, except in States where workers compensation may not be written by private carriers
- e. Others as required by State law.

1.10.2 Insurance--Work on a Government Installation (APR 1984)

NOTE: The wording of these paragraphs is prescribed by the listed FAR clause. It must be used in all construction contracts and cannot be changed except as indicated by blanks or brackets. In paragraph entitled "Performance of Work by the Contractor (APR 1984)," if the project involves housing, change "twenty (20)" to "fifteen (15)."

- a. The Contractor shall, at its own expense, provide and maintain during the entire performance period of this contract at least the kinds and minimum amounts of insurance required in the Schedule or elsewhere in the contract.
- b. Before commencing work under this contract, the Contractor shall

certify to the Contracting Officer in writing that the *required insurance\ has been obtained. The policies evidencing required insurance shall contain an endorsement to the effect that any cancellation or any material change adversely affecting the Government's interest shall not be effective (1) for such period as the laws of the State in which this contract is to be performed prescribe or (2) until 30 days after the insurer or the Contractor gives written notice to the Contracting Officer, whichever period is longer.

- c. The Contractor shall insert the substance of this clause, including this paragraph (c), in subcontracts under this contract that require work on a Government installation and shall require subcontractors to provide and maintain the insurance required in the Schedule or elsewhere in the contract. \&The Contractor shall maintain a copy of all subcontractors' proofs of required insurance, and shall make copies available to the Contracting Officer upon request.&\ (FAR 52.228-5)

~~1.10.3 [Limited Assumption of Risk by the Government~~

~~*****
NOTE: Use this paragraph when directed by the station through the AIC/EIC. This paragraph is for use only in projects involving work located in or near hazardous areas such as ammunition depots, magazines, or explosive manufacturing facilities.
*****~~

~~1.10.3.1 Action~~

~~The work at [] is potentially hazardous. Title to all work in place shall be in the Government, and title to all property intended for incorporation into the work shall vest in the Government upon delivery to the worksite. The term "Government-owned property," as used in these paragraphs, refers to such work in place and to such other property for which titles have vested in the Government pursuant to the provisions of the preceding sentence and includes any property furnished or rented to the Contractor by the Government. Upon completion of the work, any such Government-owned property not a part of the work, except property rented to or furnished without charge to the Contractor by the Government, shall become the property of the Contractor. The vesting of title in the Government, as provided for in this paragraph, shall in no way relieve the Contractor of any obligations otherwise provided for in this contract in respect to such Government-owned property, except as expressly stated in this contract.~~

~~1.10.3.2 Scope~~

~~The Contractor represents that the contract price does not include the cost of insurance or any provision for a reserve covering the risk assumed by the Government under this paragraph. The Government assumes the risk of loss or damage to such Government-owned property, including expenses incidental to such loss or damage resulting directly or indirectly from the explosion of Government-owned or -controlled munitions, including, without limitations,~~

~~ammunition, bombs, powder, dynamite, and other explosives, whether or not~~
caused by negligence. However, the Government does not assume at any time the risk of, and the Contractor shall be responsible for, such loss or damage which is in fact covered by insurance or for which the Contractor is otherwise reimbursed or which is caused by willful misconduct or lack of good faith or willful disregard of proper instructions from the Contracting Officer on the part of any of the Contractor's directors, officers, or any of his other representatives having supervision or direction of all or substantially all the Contractor's operations under this contract.

1.10.3.3 Recourse

In the event of loss or damage to Government-owned property resulting from the risk assumed by the Government in accordance with this contract, the Contracting Officer shall determine whether, and to what extent, such property shall be rebuilt, repaired, or replaced by the Contractor or otherwise. Should the Contracting Officer's determination cause an increase or decrease in the cost of doing the work under this contract or the time required for its performance, the Contractor shall make equitable adjustment in the pertinent contract terms in the manner and upon notice as provided in the Contract Clause entitled "Changes."

1.10.3.4 Modification

The provisions of the Contract Clause entitled "Permits and Responsibilities" are to be deemed modified by this article only to the extent required to give ~~effect to the limited assumption of risk stated in this contract.~~

1.11 NO WAIVER BY THE GOVERNMENT

The failure of the Government in any one or more instances to insist upon strict performance to any of the terms of this contract or to exercise any option herein conferred shall not be construed as a waiver or relinquishment to any extent of the right to assert or rely upon such terms or option on any future occasion.

1.12 *SCHEDULE OF PRICES*\

1.12.1 Data Required

Within 5 days ^{after award of the contract} ~~of receipt of a notice of award~~, the Contractor shall prepare and deliver to the Officer in Charge of Construction a schedule of prices (construction contract) on the forms furnished for this purpose. The schedule of prices shall consist of a detailed breakdown of the contract price, giving the quantities for each of the various kinds of work; the unit prices; and the total prices therefore. The detailed breakdown shall be segregated under each of the construction categories stated in this contract. The required schedule must be based on the actual breakdown of the bid price. Accordingly, subcontractors who may be involved in work under more than one of these categories shall be advised of this requirement in order to furnish such data without delay. The format, content, and number of copies required will be prescribed by the Officer in Charge of Construction and will be subject to his approval. The submission of the required data shall not otherwise affect the contract terms.

1.12.2 Submittal Instructions

NOTE: Delete the bracketed sentences in projects which are limited to either building or site work, and delete references to construction categories, except in projects funded under the military construction (MCON) programming system.

Furnish four copies of the schedule of prices in accordance with the paragraph entitled "Data Required." ~~[Divide the schedule of prices into the construction categories specified in the paragraph entitled "Construction Categories" of Section \=01011=\ "Additional General Paragraphs".]~~
 [Identify costs for [each] [the] building, and include all work out to the 5-foot line. Work to the 5-foot line shall include all construction encompassed within a theoretical line 5 feet from the face of the exterior walls and shall include building equipment such as cooling towers and attendant construction placed beyond the 5-foot line. Identify the cost for site work, and include all work not defined as work to the 5-foot line.]
 Payments will not be made pursuant to the Contract Clause entitled "Payments to Contractor" until the schedule of prices has been submitted to and approved by the Contracting Officer.

1.13 PAYMENTS TO THE CONTRACTOR

Payments made in accordance with the Contract Clause entitled "Payments Under Fixed-Price Construction Contract" will be made on submission of itemized requests by the Contractor and will be subject to reduction for overpayments or increase for underpayments on preceding payments to the Contractor.

1.13.1 Payment for Materials Offsite

NOTE: Use these paragraphs in all projects.

Pursuant to the paragraph entitled "Payments to the Contractor," payments may be made to the Contractor for materials stored off construction sites. However, the following conditions must be met:

- a. The conditions described in the paragraph entitled "Payments to the Contractor."
- b. The material must be within ~~a~~ distance of ~~750~~ 1 miles by streets and roads ~~the county of the construction site~~.
- c. The materials shall be adequately insured and protected from theft and exposure.
- d. The materials shall not be susceptible to deterioration or physical damage in storage or in transit to the jobsite. Items such as steel, machinery, pipe and fittings, and electrical cable are acceptable for progress payments; items such as gypsum wallboard, glass, insulation, and wall coverings are not. Payments will not

be made for materials in transit to the jobsite or storage site.

1.13.2 Obligation of Government Payments

The obligation of the Government to make any of the payments required under any of the provisions of this contract shall, in the discretion of the Officer in Charge of Construction, be subject to:

- a. Reasonable deductions on account of defects in material or workmanship; and
- b. Any claims which the Government may have against the Contractor under or in connection with this contract. Any overpayments to the Contractor shall, unless otherwise adjusted, be repaid to the Government upon demand.

1.14 CONTRACTOR'S INVOICE AND CONTRACT PERFORMANCE STATEMENT

Requests for payment in accordance with the terms of the contract shall consist of:

- a. The Contractor's invoice on the form furnished for this purpose, which shall show, in summary form, the basis for arriving at the amount of the invoice; and
- b. The contract performance statement on the form furnished for this purpose, which shall show, in detail, the estimated cost percentage of completion and value of completed performance for each of the construction categories stated in this contract. The format, content, and number of copies required will be prescribed by the Officer in Charge of Construction and will be subject to his approval. The submission of the required data will not otherwise affect the contract terms.

1.15 EQUITABLE ADJUSTMENTS - WAIVER AND RELEASE OF CLAIMS

- a. Whenever the Contractor submits a claim for equitable adjustment under any clause of this contract which provides for equitable adjustment of the contract, such claim shall include all types of adjustments in the total amounts to which the clause entitles the Contractor, including, but not limited to, adjustments arising out of delays or disruptions or both caused by such change. Except as the parties may otherwise expressly agree, the Contractor shall be deemed to have waived: (1) any adjustments to which he otherwise might be entitled under the clause where such claim fails to request such adjustments; and (2) any increase in the amount of equitable adjustments additional to those requested in his claim.
- b. The Contractor agrees that, if required by the Contracting Officer, he shall execute a release, in form and substance satisfactory to the Contracting Officer, as part of the supplemental agreement setting forth the aforesaid equitable adjustment. The Contractor further agrees that such release shall discharge the Government, including its officers, agents, and employees, from any further claims, including, but not limited to, further claims arising out

of delays and/or disruptions caused by the aforesaid change.

1.16 CHANGES BOARD AND ESTIMATES

In determining any equitable adjustment under the "Changes" clause, the Officer in Charge of Construction will, in those instances where the adjustment is estimated by the Officer in Charge of Construction to be \$50,000 or more, convene and give full consideration to the report of an advisory board of three members, consisting of two Government representatives appointed by the Officer in Charge of Construction and one representative appointed by the Contractor. This board shall report to the Officer in Charge of construction the amount of the change in cost, time, or both, resulting from the ordered change. In making all equitable adjustments under the "Changes" clause, compensation for additions will be based upon estimated costs at the time the work is performed, and credit for deductions will be based upon estimated costs at the time the contract was made. In arriving at the amount of the change in price, if any, allowance may be made for profit, overhead and general expenses, plant rental, and other similar items.

~~1.17 NONDOMESTIC CONSTRUCTION MATERIALS~~

~~*****~~

~~NOTE: Include this paragraph only if, through NAVFAC Code 091 there is an approved exception to the "Buy American" Act, in accordance with NAVFAC P-68 and the Contract Clauses.~~

~~*****~~

~~Pursuant to the clause of the Contract Clauses entitled "Buy American Act Construction Materials," the requirements of the clause do not apply to the following: []~~

1.18 AS-BUILT RECORDS

1.18.1 *As-Built Drawings*\

NOTE: Use these paragraphs in all projects.

Maintain at the jobsite two sets of full-size contract drawings marked to show any deviations which have been made from the contract drawings, including buried or concealed construction and utility features revealed during the course of construction. Record the horizontal and vertical location of all buried utilities that differ from the contract drawings. These drawings shall be available for review by the Contracting Officer at all times. Upon completion of the work, deliver the marked sets of prints to the Contracting Officer. Requests for partial payments will not be approved if the marked prints are not current, and request for final payment will not be approved until the marked prints are delivered to the Contracting Officer.

1.18.2 *As-Built Record of Materials*\

NOTE: Include this requirement if the project

includes several materials and when the list would be useful for maintenance or replacement.

A record of the materials used [is not required.] [shall be furnished prior to completion of the contract. Submission of this data is a condition for final payment under the contract.

Where several manufacturers' brands, types, or classes of the item listed have been used in the project, the specific areas where each item was used shall be designated. Designations shall be keyed to the areas and spaces depicted on the contract drawing. The record of materials used shall be furnished in the following format:

| MATERIALS DESIGNATION | SPECIFICATION | MANUFACTURER | MATERIALS USED (MANUFACTURER'S DESIGNATION) | WHERE USED |
|-----------------------|---------------|--------------|---|------------|
| _____ | _____ | _____ | _____ | _____] |

~~1.19 [CONTRACTOR'S DAILY REPORT]~~

~~NOTE: If "Contractor Quality Control" is applicable, delete this paragraph.~~

~~\+The Contractor shall deliver to the Contracting Officer a "Daily Report to the Inspector" on the form furnished for this purpose. The form shall be completed daily and delivered to the officer in charge of Construction.+ \ Data to be reported include data on workers by classification, the move-on and move-off of construction equipment furnished by the Contractor and subcontractors or furnished by the Government, and material and equipment delivered to the site.]~~

1.20 [QUANTITY SURVEYS * \

NOTE: Include this paragraph in projects containing unit price items (See Section 00101, "Instructions to Bidders."), where the specifications provide for payment based on surveys.

- a. The Government will make original and final surveys and compute the quantities of work performed or finally in place.
- b. \+The Contractor shall furnish surveys and computations, as necessary, to determine the quantities of work performed or placed during each period for which a progress payment is to be made. Original field notes, computations, and other records for the purpose of layout and progress surveys shall be furnished promptly to the Contracting Officer at the site of the work and will be used by the Contracting Officer to the extent necessary in determining the proper amount of progress payments due the Contractor.+ \ The

Contractor shall retain a copy of the original notes, computations, and records furnished to the Contracting Officer. Unless waived by the Contracting Officer in each specific case, the Contractor shall make quantity surveys under the direction of the Contracting Officer.]

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

3.1 STATION REGULATIONS

The Contractor and his employees and subcontractor shall become familiar with and obey all station regulations, including fire, traffic, and security regulations. All personnel employed on the station shall keep within the limits of the work (and avenues of ingress and egress) and shall not enter any restricted areas unless required to do so and are cleared for such entry. The Contractor's equipment shall be conspicuously marked for identification.

3.1.1 Working Hours

 NOTE: When there is a need for special work periods, such as at occupied family housing, this paragraph should be modified accordingly. Obtain this information from the activity via the AIC/EIC.

Regular working hours shall consist of ~~12~~ ~~hour~~ ~~8 1/2-hour~~ ~~hour~~ period established by the contracting officer between ~~7~~ a.m. and 5 p.m., ~~7~~ ~~a.m.~~ and ~~p.m.~~ Monday through Friday, excluding Government holidays. \+The Contractor shall make application for work outside regular working hours 15 calendar days prior to such work in accordance with the paragraph entitled "Work Outside Regular Hours."+\

3.1.2 Work Outside Regular Hours

\+If the Contractor desires to carry on work outside regular hours, including Saturdays, Sundays, and Government holidays, an application shall be delivered to the Officer in Charge of Construction.+ \ The Contractor shall allow ample time to enable satisfactory arrangements to be made by the Government for inspecting the work in progress. During periods of darkness, the different parts of the work shall be lighted in a manner approved by the Officer in Charge of Construction. All utility cutovers shall be made after normal working hours or on Saturdays, Sundays, and Government holidays. Anticipated costs shall be included in the bid.

3.2 ORDER OF WORK

\+The Contractor shall schedule his work so as to cause the least amount of interference with station operations. Work schedules shall be subject to the approval of the Officer in Charge of Construction. Permission to interrupt any station roads, railroads, and/or utility service shall be requested in

3.5 SANITATION

Adequate sanitary conveniences of a type approved for the use of persons employed on the work shall be constructed, properly secluded from public observation, and maintained by the Contractor in such a manner as required or approved by the Officer in Charge of Construction. These conveniences shall be maintained at all times without nuisance. Upon completion of the work, the conveniences shall be removed by the Contractor from the premises, leaving the premises clean and free from nuisance.

~~3.6 PUBLIC RELEASE OF INFORMATION~~

NOTE: Use this paragraph only for projects which involve work within special facilities, where the release of information is not permitted. Use this paragraph only if required by the station's policy.

- a. The Contractor shall not publicly disclose any information concerning any aspect of the materials or services relating to this bid, contract, or purchase order without the prior written approval of the Contracting Officer.
- b. The Contractor shall insert the substance of clause "(a)" of this paragraph in each subcontract and purchase order related to the ~~project.~~

3.7 SPECIFICATIONS AND STANDARDS

The specifications and standards referenced in this project specification, including addenda, amendments, and errata listed, will govern in all cases where references thereto are made. In case of differences between these specifications or standards and this project specification or its accompanying drawings, this project specification and its accompanying drawings will govern to the extent of such differences. Otherwise, the referenced specifications and standards will apply. The requirement for packaging, packing, marking, and preparation for shipment or delivery included in the referenced specifications will apply only to materials and equipment that are furnished directly to the Government and not to materials and equipment that are to be furnished and installed by the Contractor.

3.8 OPTIONAL REQUIREMENTS

Where a choice of materials or methods, or both, is permitted in this contract, the Contractor will be given the right to exercise the option unless otherwise required by the specification.

3.9 GENERAL PROVISIONS

Any reference within this project specification to a General Provision shall be understood to be a reference to the Contract Clause(s) or the General Paragraph(s) addressing the subject matter of the particular reference.

-- End of Section --

CRITERIA NOTES

NOTE A: Restrictions on the public release of information must be obtained from the station. Contact the AIC/EIC before submitting the contract document (95 percent) or before the final submission (100 percent) of the project.

NOTE B: Instructions, if the "Limited Assumption of Risk" is to be included, will be made available by the AIC/EIC before submitting the contract document (95 percent) or before the final submission (100 percent) of the project.

\&&\

NOTE C: Suggestions for improvement of this specification will be welcomed using the "Agency Response Form" located in SPECSINTACT under "System Directory" or DD Form 1426. Suggestions should be forwarded to:

Commanding Officer
Naval Construction Battalion Center
Civil Engineer Support Office
Code DS03
Port Hueneme, CA 93043-5000

-- End --

 DEPARTMENT OF THE NAVY NFGS-01011F
 NAVAL FACILITIES 30 September 1992
 ENGINEERING COMMAND -----
 GUIDE SPECIFICATION Superseding NFGS-01011E (06/92)

SECTION 01011

ADDITIONAL GENERAL PARAGRAPHS
09/92

 NOTE: This guide specification shall be used in preparing the second section of Division 1 of the project specifications: Section 01011, "Additional General Paragraphs\." It is anticipated that local data will be made available as a supplement to this guide specification.

 NOTE: This revision "F" to NFGS-01011 amends the issue dated 30 June 1992 by by revising the paragraph entitled, "Information Required by Other Additional General Paragraphs."

 NOTE: See Note A located at rear of text.

PART 1 GENERAL

1.1 SUMMARY

 NOTE: The article "SUMMARY" is not used by the Naval Facilities Engineering Command, except in specialized cases. Delete this article when editing for project specifications.

1.2 REFERENCES

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.

CODE OF FEDERAL REGULATIONS (CFR)

\-40 CFR 763-SUBPART F-\ Friable Asbestos-Containing Materials in Schools

CORPS OF ENGINEERS (COE)

\-COE 1-1-11-\

1985 Network Analysis Systems, October 15

MILITARY SPECIFICATIONS (MIL)

\-MIL-S-16165-\

(Rev. E) Shielding Harnesses, Shielding Items and Shielding Enclosures for Use in the Reduction of Interference from Engine Electrical Systems

MILITARY STANDARDS (MIL-STD)

\-MIL-STD-461-\

(Rev. C) (Notice 2) Electromagnetic Emission and Susceptibility Requirements for the Control of Electromagnetic Interference

\-MIL-STD-462-\

(Notice 6) Electromagnetic Interference Characteristics

1.3 PROJECT INFORMATION

1.3.1 Contract Drawings, Maps, and Specifications (SEP 1987)

NOTE: The wording of these paragraphs is prescribed by the listed FAR clause. It must be used in all construction contracts and cannot be changed except as indicated by blanks or brackets.

- a. 5 sets (~~5 unless otherwise specified~~) of large-scale (half-size optional) contract drawings and specifications will be furnished the Contractor without charge except applicable ~~sections~~ publications incorporated into the technical ~~provisions~~ by reference. Additional sets will be furnished on request at the cost of reproduction. One set of reproducible will be furnished to the Contractor ~~on a one-time basis in lieu of the above contract drawings at the option of the Contracting Officer.~~ The work shall conform to the specifications and the following contract drawings identified on the following index of drawings.
- b. Omissions from the drawings or specifications or the misdescription of details of work which are manifestly necessary to carry out the intent of the drawings and specifications, or which are customarily performed, shall not relieve the Contractor from performing such omitted or misdescribed details of the work but they shall be performed as if fully and correctly set forth and described in the drawings and specifications.
- c. The Contractor shall check all drawings furnished him immediately upon their receipt and shall promptly notify the Contracting Officer of any discrepancies. Figures marked on drawings shall in general be followed in preference to scale measurements. Large scale drawings shall be in general govern small scale drawings.
 \+The Contractor shall compare all drawings and any errors which

verify the Figures before laying out the work and will be responsible for

might have been avoided thereby.+\
(DFARS 252.236-7002)

1.3.2 Drawing Numbers

NOTE: Assign seven-digit NAVFAC drawing numbers to all drawings. Do not list sheet numbers. For a drawing bearing revisions, include after title: "Revised [date]."

| NAVFAC ^C DRAWING NO. | TITLE |
|---------------------------------|-------|
| [] TO BE ASSIGNED | [] |

~~1.3.3 Number of sets furnished~~

~~In addition to the reproducible set of drawings and specifications furnished in accordance with DFARS 252.236-7002&, the Contracting Officer will furnish up to [15] [20] [] sets of [half-] [full-] size drawings and [15] [20] [] copies of the contract specifications without charge, after award of the contract.~~

~~1.3.4 [reference drawing[s]] Accompanying specification~~

~~*****
NOTE: Use only when reference drawings must be included in the project.
*****~~

~~The following reference drawing[s] [accompanies] [accompany] this specification and [is] [are] intended only to show the original construction. Drawings are the property of the Government and shall not be used for any purpose other than that intended by the specification. [The drawing[s] included with this specification [is] [are] half size. Full-size drawings are available at the bidder's or contractor's expense. Information on procuring these full-size drawings may be obtained from the Contracting Officer. Full-size drawings may be inspected during regular working hours at the office of the Contracting Officer.]~~

| NAVFAC DWG. NO. | TITLE |
|-----------------|-------|
| [] | [] |

1.3.5 Boring Logs

NOTE: Select the applicable paragraph(s) from the following:

NOTE: Use the first alternative paragraph if boring logs are available and the second, if they are not.

NAVFAC Drawing No[s]. ~~B-1~~ indicate[s] the information obtained by Government investigation. The Government does not guarantee that borings indicate actual conditions, except for the exact locations and the time that they were made. ~~Subsurface data, not specified or indicated, have been obtained by the Government at this station. The data are available for examination by prospective bidders [in the office of the Contracting Officer] [at the station].~~

~~Subsurface data~~

NOTE: Use the first alternative paragraph if boring logs are available and the second, if they are not.

~~Subsurface data, not specified or indicated, have been obtained by the Government at the station. The data are available for examination by prospective bidders [in the office of the Contracting Officer] [at the station].~~

1.3.6 Construction Categories

BYND

NOTE: Delete references to construction categories except in projects funded under the military construction (MCON) programming system.

The following construction [category applies] [categories apply] to all work covered by this specification:

| CATEGORY | DESCRIPTION |
|----------|-------------|
| [] | [] |

The construction [category] [categories] given above may be modified by the Contracting Officer as necessary during the course of the work.

1.4 SUBMITTALS

NOTE: The "G" in asterisk tokens following each submittal item indicates Government approval and should be retained. Add "G" in asterisk tokens following any added submittals that are determined to require Government approval. Submittal items not designated with a "G" will be approved by the CQC organization.

Submit the following in accordance with Section \=01300=\, "Submittals."

1.4.1 *SD-18, Records*\

- a. *Construction schedule*\ *G*\
- b. *Equipment delivery schedule*\ *G*\
- c. *Monthly update*\ to construction schedule and equipment delivery schedules *G*\
- d. *Safety plan*\ *G*\

1.4.1.1 *Construction Schedule*\

 NOTE: See Note B located at rear of text.

Within 15 days after receipt of the Notice of Award, prepare and submit to the Contracting officer for approval a feasible construction schedule in accordance with the clause of the Contract Clauses entitled "Schedules for construction contract," except as modified in this contract.

1.4.1.2 *Equipment Delivery Schedule*\

 NOTE: See Note B located at rear of text.

 NOTE: See Note C located at rear of text.

award of contract

Within x20x days after ~~the notice of award~~, submit to the Contracting officer for approval, a schedule showing the procurement plans for materials, plant, and equipment. Submit in the format prescribed by the Contracting officer, and include as a minimum the following information:

- a. Description
- b. Date of the purchase order
- c. Promised shipping date
- d. Name of the manufacturer or supplier
- e. Date delivery is expected
- f. Date the material or equipment is required, according to the current progress schedule or network.

1.4.1.3 Network Analysis System

 NOTE: See Note B located at rear of text.

Insert A

-
- a. The date the Contracting Officer signs the SF 1442 is the date of the award of the contract.
 - b. A period of 15 days, after which contract time commences, is to allow for the mailing of the SF 1442 and the Contractor's submission and approval of the required bonds, Certificates of Insurance and Certification as to the percentage of work to be performed by the Contractor.
 - c. The contract time for the purpose of fixing the completion date shall begin to run 15 days from the date of award on the SF 1442, regardless of when the performance and payment bonds are executed."

(APR 84)."

~~The Contractor shall commence, maintain, resume and complete the work in phases. Each phase of the work shall be within the number of calendar days stated in the following schedule.~~

- a. Scheduled Start Day: The day designated as the beginning of a particular phase; the number listed is the number of calendar days from the commencement of work.
- b. Completion Day: The day designated as the end of a given phase and the day the work in that phase must be completed; the number listed is the number of calendar days from the commencement of work.
- c. Schedule:

| PHASE | DESCRIPTION | SCHEDULED START DAY | COMPLETION DAY |
|-------|---------------------------------|---------------------|----------------|
| A | [] | 0 | [] |
| B | [] | [] | [] |
| C | Completion of remaining work | [] | [] |

1.6.2 Liquidated Damages - Construction (APR 84)

NOTE: The wording of these paragraphs is prescribed by the listed FAR clause. It must be used in all construction contracts and cannot be changed except as indicated by blanks or brackets.

NOTE: See Note E located at rear of text.

(FAR 52.212-5(a))

1.6.2.1 Failure to Complete Work

NOTE: Edit the first bracketed phrase for projects where a single completion time is specified (in paragraph entitled "Commencement, Prosecution, and Completion of Work (APR 84)"), and use the second bracketed phrase when phased construction is specified (in paragraph entitled "Phased Construction").

If the Contractor fails to complete the work within the time specified in the contract, or any extension, the Contractor shall pay to the Government

as liquidated damages, the sum of ^{700 dollars} ~~_____~~ (listed below as damages for each phase) for each day of delay.

(FAR 52.212-5(a))

1.6.2.2 Contractor Liability with Government Termination

NOTE: See Note F located at rear of text.

If the Government terminates the Contractor's right to proceed, the resulting damage will consist of liquidated damages until such reasonable time as may be required for final completion of the work together with any increased costs occasioned the Government in completing the work.

(FAR 52.212-5(b))

1.6.2.3 Contractor Liability Without Government Termination

If the Government does not terminate the Contractor's right to proceed, the resulting damage will consist of liquidated damages until the work is completed or accepted.

(FAR 52.212-5(c))

~~1.6.2.4 Phased Construction~~

~~*****
NOTE: See Note F located at rear of text.
*****~~

~~For each day the Contractor fails to complete the work of a phase within the time fixed in the contract or any extensions thereof, a day of delay for that phase is created. The Contractor shall pay to the Government as liquidated damages at the close of business on each day of delay for each phase, the following sums:~~

| PHASE | DAMAGES FOR PHASE PER DAY |
|-------|---------------------------|
| A | [\$ _____] |
| B | [\$ _____] |
| C | [\$ _____] |

1.7 DIVISION OF WORK

1.7.1 Government-Furnished Material and Equipment

NOTE: See Note G located at rear of text.

1.7.1.1 To Be Furnished

The Government will furnish the following materials and equipment for installation by the Contractor in accordance with the clause of the Contract Clauses entitled "Government-Furnished Property (Short Form)."

| DESIGNATION NO. | DESCRIPTION | QUANTITY |
|-----------------|--------------------------------------|----------|
| [] | (TO BE DETERMINED) IF APPLICABLE [] | [] |

1.7.1.2 Delivery Schedule

NOTE: Select the applicable paragraph(s) from the following:

NOTE: See Note H located at rear of text.

~~Notify the Contracting Officer in writing at least [] calendar days in advance of the date on which the materials and equipment are required.~~
 Pick up the materials and equipment no later than 30 calendar days after the indicated required date. If the materials and equipment are not picked up by the 30th day, the Contractor will be charged for storage at the rate of ~~\$2.50~~ per 100 ^{cubic feet} pounds per month or fraction thereof.]
 Materials and equipment will be available on or after 30 calendar days after the commencement of work.]

1.7.1.3 Delivery Location

The materials and equipment ~~are located at []~~ ~~are located within [] miles of the jobsite.~~ will be delivered to Project location

1.7.1.4 Contractor's Responsibility

~~Disconnect, load, {Lead,} transport, unload, uncrate, assemble, install, connect, and test {new} {and} {existing} materials and equipment.~~
 Uncrate new equipment in the presence of the Contracting Officer to inspect for possible damaged or missing parts. ~~Schedule with the Contracting Officer a joint inspection of the materials and equipment to determine their existing condition.~~ The Contractor shall be responsible for damage sustained by the materials and equipment after this inspection.+)
 Materials (carbons, containers and debris resulting from uncrating shall be removed by the contractor

1.7.2 [Government-Installed Work (TO BE DETERMINED IF APPLICABLE)]

NOTE: Include this paragraph if the Government is to install equipment or perform other work at the job site, excluding inspection and testing. Define the extent and type of Government work. Do not use to describe Government-furnished work that the

Contractor is to install.

[____.]]

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

3.1 FACILITIES AND SERVICES

3.1.1 Availability of Utilities Services

NOTE: Select the applicable paragraph(s) from the following:

NOTE: See Note I located at rear of text.

~~Pursuant to the clause of the Contract Clauses entitled "Availability and Use of Utilities Services," reasonable amounts of the following utilities will be made available to the Contractor without charge. at the prevailing rates. at the following rates.~~

- ~~Electricity - [\$ _____ per _____]~~
- ~~Potable Water - [\$ _____ per _____]~~
- ~~Salt Water - [\$ _____ per _____]~~
- [Compressed Air - [\$ _____ per _____]]
- [Steam - [\$ _____ per _____]]
- [Natural Gas - [\$ _____ per _____]]
- [Sanitary Sewer - [\$ _____ per _____]]

The point at which the Government will deliver such utilities or services and the quantity available is as indicated. The Contractor shall pay all costs incurred in connecting, converting, and transferring the utilities to the work. The Contractor shall make connections, including providing backflow-preventing devices on connections to domestic water lines; providing meters; and providing transformers; and make disconnections.

NOTE: See Note I located at rear of text.

~~The clause of the Contract Clauses entitled "Availability and Use of Utility Services" is not invoked. The Contractor shall provide his own utilities.~~

3.1.2 ~~/~~Contractor's Storage Area

The clause of the Contract Clauses entitled "Operations and Storage Areas" and the following apply:

3.1.2.1 Storage in Existing Buildings

NOTE: Edit for all projects as appropriate. Seek through the AIC/EIC the necessary information from the station. Indication of storage area on the drawings is preferred. Use paragraphs related to temporary facilities only when storage sheds or offices are actually anticipated.

The Contractor shall be working ~~{in}~~ ~~{around}~~ existing building~~s~~; the storage of material ~~{will be allowed {in a [] square foot area} {where indicated} }~~ ~~{will not be allowed in the building~~s~~ }~~.

3.1.2.2 Storage Size and Location

NOTE: Edit for all projects as appropriate. Seek through the AIC/EIC the necessary information from the station. Indication of the storage area on the drawings is preferred. Use paragraphs related to temporary facilities only when storage sheds or offices are actually anticipated.

The ~~{roofed}~~ ~~{enclosed}~~ ~~/~~open site available for storage shall be ~~[confined to the indicated operations area] [within 1,000 feet of the operations area] }~~ ~~{as indicated}~~. The storage area will be approximately ~~[8,000]~~ square feet.]

3.1.3 ~~/~~Temporary Buildings

NOTE: Edit for all projects as appropriate. Seek through the AIC/EIC the necessary information from the station. Indication of the storage area on the drawings is preferred. Use paragraphs related to temporary facilities only when storage sheds or offices are actually anticipated.

Locate these ~~{where indicated}~~ ~~/~~where directed and within the indicated operations area. ~~{within 1,000 feet of the operations area}~~.

3.1.3.1 ~~/~~Maintenance of Temporary Facilities

NOTE: Edit for all projects as appropriate. Seek through the AIC/EIC the necessary information from

the station. Indication of the storage area on the drawings is preferred. Use paragraphs related to temporary facilities only when storage sheds or offices are actually anticipated.

Suitably paint and maintain the temporary facilities. Failure to do so will be sufficient reason to require their removal.

~~3.1.3.2 [Navy Construction Representative's Office~~

~~*****~~

~~NOTE: For locations remote from a ROICC office; this provision will be deleted at most stations and for most projects.~~

~~*****~~

~~Provide an office with a minimum of [200] [] square feet of useful floor area for the exclusive use of Government personnel, in addition to and separate from any other office space provided by the Contractor. Provide a weathertight structure with adequate [heating and cooling,] toilet facilities, lighting, ventilation, a 4-foot by 8-foot plan table, a standard size office desk and chair, and working communications facilities. [Provide either a 1,500-watt radiant heater and a window-mounted air conditioner rated at 9,000 Btu's minimum or a window-mounted heat pump of the same minimum heating and cooling ratings.] Provide a door with a cylinder lock and windows with locking hardware. Furnish all necessary utilities. Locate [as directed] [where indicated]. After completion of the work, remove the entire structure from the site.]~~

~~3.1.3.3 [Contractor Quality Control Records and Field Office~~

~~*****~~

~~NOTE: Use this paragraph for projects over \$2 million.~~

~~*****~~

~~Provide on the jobsite an office with approximately [200] [] square feet of useful floor area for the exclusive use of the Contractor's quality control representative. Provide a weathertight structure with adequate [heating and cooling,] toilet facilities, lighting, ventilation, a 4-foot by 8-foot plan table, a standard size office desk and chair, and working communications facilities. [Provide either a 1,500-watt radiant heater and a window-mounted air conditioner rated at 9,000 Btu's minimum or a window-mounted heat pump of the same minimum heating and cooling ratings.] Provide a door with a cylinder lock and windows with locking hardware. Furnish all necessary utilities. Locate [as directed] [where indicated]. Contractor quality control records shall be filed in the office and available at all times to the Government. After completion of the work, remove the entire structure from the site.]~~

3.1.4 Project Sign

NOTE: This paragraph should be included for; (1)

Air Force projects with a Government estimate of \$25,000 or greater, (2) projects in locations visible to the public from well-traveled highways adjacent to the project site, or (3) for projects of sufficient size (\pm \$200,000) and prominence (exposed to \pm 10,000 people) to warrant such signs. Do not include it otherwise. Modify this paragraph if more than one sign is justified.

Within 15 days after the commencement of work, provide ~~one~~ ~~at~~ project identification sign~~s~~ at the location~~s~~ ~~indicated~~ ~~designated~~. Construct the sign~~s~~ using 4-foot by 8-foot by 1/2-inch thick exterior grade plywood, preservative-treated lumber, and galvanized hardware. Paint the plywood portion of the sign~~s~~ using one coat of lead-free alkyd oil primer paint and two coats of exterior white enamel, but do not paint the preservative-treated lumber portion of the sign~~s~~. Lettering ~~and details of construction~~ shall be as indicated. Maintain the sign~~s~~ throughout the life of the project. Upon completion of the project, remove the sign~~s~~ from the site.

3.2 RESTRICTIONS ON EQUIPMENT

3.2.1 Electromagnetic Interference Suppression

NOTE: This paragraph applies to projects where EMI suppression is required to protect electronic receivers or where other devices activated by electromagnetic energy are operated, including radio communications, radar, computers, security and fire alarms medical instruments, and missile systems. Check with the AIC/EIC when in doubt.

- a. Electric Motors: Motors shall comply with \-MIL-STD-461-\ relative to radiated and conducted electromagnetic interference. \+A test for electromagnetic interference will not be required for motors that are identical physically and electrically to those that have previously met the requirements of \-MIL-STD-461-\ . An electromagnetic interference suppression test will not be required for electric motors without commutation or sliprings having no more than one starting contact and operated at 3,600 revolutions per minute or less.\
- b. Contractor's Construction Equipment: Equipment used by the Contractor shall comply with \-MIL-S-16165-\ for internal combustion engines and \-MIL-STD-461-\ for other devices capable of producing radiated or conducted interference.
- c. Tests for Electromagnetic Interference Suppression: \+Conduct tests on electric motors and the Contractor's construction equipment in accordance with \-MIL-STD-461-\ and \-MIL-STD-462-\ . The test location shall be reasonably free from radiated and conducted interference.\ Furnish the testing equipment,

instruments, and personnel for making the tests; a test location; and other necessary facilities.

3.2.2 Radio Transmitter Restrictions

NOTE: This paragraph should be used for projects in the vicinity of sensitive electronics equipment to preclude accidental actuation of the equipment. See also the paragraph "Restrictions to Ensure Safety," which is used to restrict radio transmissions in areas where explosives are present.

Conform to the restrictions and procedures for the use of radio transmitting equipment, as directed. \+Do not use transmitters without prior approval.+\
+)

3.3 RESTRICTIONS ON OPERATIONS

3.3.1 Restrictions Upon Interrupting Utility Services

NOTE: Use this paragraph on all projects involving potential conflicts with existing utility systems. Clearly detail the permissible extent, the sequencing, or the duration of outages. Contact the AIC/EIC to determine the complete details of outage or scheduling restraints which may impact on the successful bidder's time or cost of performance of the work, and incorporate such details in this paragraph.

The clause of the Contract Clauses entitled "Schedules for Construction Contract"; the paragraph of Section \=01010=\, "General Paragraphs," entitled "Order of Work"; and the following apply:

- a. Ensure that new utility lines are complete, except for the connection, before interrupting existing service.
- b. ~~Interruption to Water, Sanitary Sewer, Storm Sewer, Telephone Service, Electric Service, , Air Conditioning, Heating, Fire Alarm, and Compressed Air: These~~ ~~The utility interruption to~~ shall be considered utility cutovers pursuant to the paragraph of Section \=01010=\, "General Paragraphs," entitled "Work Outside Regular Hours." ~~Such interruption shall be further limited to .~~ This limit includes time for deactivation and reactivation.

3.3.2 Restrictions Upon Interrupting Station Operations

NOTE: See Note J located at rear of text.

~~3.3.4.1 Extraordinary Security Requirements~~

NOTE: See Note L located at rear of text.

~~The clause of the Contract Clauses entitled "Identification of Employees" shall apply. [Identification badges will be furnished without charge, if required, but application for and use of badges will be as directed. Immediately report instances of lost or stolen badges to the Contracting Officer.] [These will not be required.]~~

3.3.5 ~~/*Safety Plan*~~

NOTE: Include this paragraph in all contracts which contain hazardous materials; both furnished for the work or used by the contractor in the course of the work. Use the first bracketed phrase only in work that is of a particularly hazardous nature or scheduled to last more than 6 months.

~~Submit in writing a safety plan for preventing accidents and meet in conference with the Commanding Officer to discuss and develop mutual understandings relative to the overall safety program, pursuant to the Contract Clause entitled "Accident Prevention." The safety plan shall include [Submit a safety plan with] provisions to deal with hazardous materials, pursuant to the Contract Clause entitled "Hazardous Material Identification and Material Safety Data." With respect to hazardous materials, the plan will consist of:~~

- a. An index of hazardous materials to be introduced to the site;
- b. Plan for protecting personnel and property during the transport, storage and use of the materials;
- c. Procedures for spill response and disposal;
- d. Material Safety Data Sheets for materials listed in the index of the plan and not required in the technical section of the specification.

~~3.4 [HAZARDS TO [AIRFIELD] [HELIPORT] OPERATION~~

NOTE: Include these paragraphs in projects where work will occur on or near aircraft runways, taxiways, or similar aircraft operational facilities. Use the term "landing strip" when dealing with heliports. Use the term "runway" when dealing with airplanes. Use the term "Operations Officer," except as directed otherwise.

~~3.4.1 WORK in Proximity to [Runways] [Landing Strips]~~

~~Accomplish all construction work on [the runways, taxiways, and parking aprons and in the end zones of the runways and 75 feet to each side of the runways and taxiways] [the landing strip, 75 feet to each side thereof, and on the taxiways and parking aprons] with extreme care regarding the operation of aircraft. Cooperate closely, and coordinate with [the Operations Officer and] the Contracting Officer. Park equipment in an area designated by the Contracting Officer. Under no circumstances shall equipment be parked overnight or for any extended period of time in the proximity of the [runways or taxiways] [landing strip]. Leave no material in areas where extreme care is to be taken regarding the operation of aircraft.]~~

3.4.2 [Schedule of Work

NOTE: Include these paragraphs in projects where work will occur on or near aircraft runways, taxiways, or similar aircraft operational facilities. Use the term "landing strip" when dealing with heliports. Use the term "runway" when dealing with airplanes. Use the term "Operations Officer," except as directed otherwise.

Schedule work to conform to aircraft operating schedules. The Government will exert every effort to schedule aircraft operations so as to permit the maximum amount of time for the Contractor's activities; however, in the event of emergency, intense operational demands, adverse wind conditions, and other such unforeseen difficulties, the Contractor shall discontinue operations at the specified locations in the aircraft operational area for the safety of the Contractor and military personnel and Government property. \+Submit a schedule of the work to the Contracting Officer [for transmittal to the Operations Officer] describing the work to be accomplished; the location of the work, noting distances from the ends of [runways, taxiways] [landing strips] and buildings and other structures as necessary; and dates and hours during which the work is to be accomplished. Keep the approved schedule of work current, and notify the Contracting Officer of any changes prior to beginning each day's work.+\\

3.4.3 [Daytime Markings

NOTE: Include these paragraphs in projects where work will occur on or near aircraft runways, taxiways, or similar aircraft operational facilities. Use the term "landing strip" when dealing with heliports. Use the term "runway" when dealing with airplanes. Use the term "Operations Officer," except as directed otherwise.

~~During daylight, mark stationary and mobile equipment with international orange and white checkered flags, mark the material, and work with yellow~~

flags.]

3.4.4 [Nighttime Markings

 NOTE: Include these paragraphs in projects where work will occur on or near aircraft runways, taxiways, or similar aircraft operational facilities. Use the term "landing strip" when dealing with heliports. Use the term "runway" when dealing with airplanes. Use the term "Operations Officer," except as directed otherwise.

During nighttime, which begins 2 hours before sundown and ends 2 hours after sunrise, mark stationary and mobile equipment and material, and work with red lanterns. Where the [Operations Officer] [Contracting Officer] determines that the red lanterns may confuse pilots approaching for landings, the [Operations Officer] [Contracting Officer] may direct that the red lanterns be left off or that the color of the globes be changed.]

3.4.5 [Excavation

 NOTE: Include these paragraphs in projects where work will occur on or near aircraft runways, taxiways, or similar aircraft operational facilities. Use the term "landing strip" when dealing with heliports. Use the term "runway" when dealing with airplanes. Use the term "Operations Officer," except as directed otherwise.

Open only those trenches for which material is on hand and ready for placing therein. As soon as possible after the material has been placed ~~and work approved, backfill and the compact trenches as specified.]~~

3.5 ACTIONS REQUIRED OF THE CONTRACTOR

3.5.1 Materials and Equipment to Be Salvaged

 NOTE: See Note M located at rear of text.

The clause of the Contract Clauses entitled "Salvage Materials and Equipment" applies to existing materials and equipment to be removed but to remain the property of the Government. They are listed ~~in this paragraph]~~ in Section \=02050=\. Remove and handle the material and equipment without damage and deliver into storage on the station at the delivery point designated ~~in Section \=02050=\, "~~ DEMOLITION AND REMOVAL ~~in this paragraph-~~

~~MATERIALS AND EQUIPMENT~~

~~DELIVERY POINT~~

3.5.2 Location of Underground Facilities

NOTE: Include this paragraph only on projects that have earthwork, trenching, pile driving, or other work involving possible conflicts with subsurface obstructions.

\+Verify the elevations of existing piping, utilities, and any type of underground obstruction not indicated or specified to be removed but indicated in locations to be traversed by piping, ducts, and other work to be installed. Verify the elevations before the new work is laid closer than the nearest manhole or other structure at which an adjustment in grade could be made.+ \ For additional work required by reason of conflict between new and existing work, an adjustment in contract price will be made in accordance with the clause of the Contract Clauses entitled "Differing Site Conditions."

3.5.3 Station Permits

Obtain these pursuant to the paragraph of Section \=01010=\, "General Paragraphs," entitled "Station Regulations." Permits are required for, but are not necessarily limited to, welding, digging, and burning. Allow ~~7~~ calendar days for processing of the application.

3.5.4 Storm Protection

NOTE: Use these paragraphs in all projects.

If a warning of gale force winds is issued, take precautions to minimize any danger to persons, and protect the work and any nearby Government property. Precautions shall include, but are not limited to, closing openings; removing loose materials, tools and equipment from exposed locations; and removing or securing scaffolding and other temporary work. Close openings in the work if storms of lesser intensity pose a threat to the work or any nearby Government property.

3.5.5 Asbestos Material

NOTE: Select the applicable paragraph(s) from the following:

NOTE: Use the first alternative paragraph if there is no known asbestos material or if known asbestos material is identified and is indicated as not being

disturbed. Use the second alternative paragraph if there is known asbestos material in the project and Section 02080 is included.

XIf material is encountered which might contain asbestos but must be disturbed, the Contractor and his employees shall avoid coming in contact with the material. Instead, the Contractor shall notify the Contracting Officer in writing concerning the possible asbestos material. Within 14 calendar days, the Contracting Officer will perform laboratory tests to determine if there is asbestos. If there is no asbestos or if the asbestos poses no danger, the Contracting Officer will direct the Contractor to proceed without change. If the asbestos must be handled, the Contracting Officer will direct a change pursuant to the clauses of the Contract Clauses entitled "Changes" and "Differing Site Conditions."X

NOTE: Use the first alternative paragraph if there is no known asbestos material or if known asbestos material is identified and is indicated as not being disturbed. Use the second alternative paragraph if there is known asbestos material in the project and Section 02080 is included.

~~Asbestos-containing materials although not indicated as such, might be encountered by the Contractor during construction operations. Accordingly, the Contractor shall remain alert to the possibility of encountering such unidentified materials during construction operations and when encountering them shall stop that part of the work which could impact, mechanically abrade, or otherwise disturb such materials and, instead, notify the Contracting Officer in writing of such findings within 2 days. The Contracting officer will then either direct a resumption of that part of the work so stopped or direct that sample(s) be taken and tested before that work is resumed. The Contractor shall handle the asbestos-containing material as required by Section 02080, "Removal and Disposal of Asbestos Materials." It is intended that all existing friable and nonfriable materials such as, but not limited to, asbestos-cement pipe, ceiling tiles, rigid insulation coverings, and vinyl asbestos floor tile, not otherwise identified as to asbestos content and which could release airborne concentrations of asbestos fibers in a manner dangerous to human health upon disturbance during construction operations, be identified. Sampling and testing of such friable and nonfriable materials shall be in accordance with \-40 CFR 763-SUBPART F-\, under the direction of a certified industrial hygienist meeting the requirements of Section 02080. Within \-40 CFR 763-SUBPART F-\ vis-a-vis this section, the term "local education agency" equates to the word "Contractor"; the term "school" or "school building" equates to the phrase "areas of work under this contract"; and the word "should" equates to the word "shall." If such asbestos-containing materials are encountered and must be handled, a change pursuant to the clauses of the Contract Clauses entitled "Changes" and "Differing Site Conditions" will be directed.]~~

~~3.5.6 [Extraordinary Restrictions Regarding Access of Vehicles and Parking]~~

NOTE: Do not add information related to station regulations which are of a routine nature. Unusual access provisions dictated by the needs of a particular project may be included, as directed.

~~[]~~

3.5.7 Extraordinary Cleanup Requirements

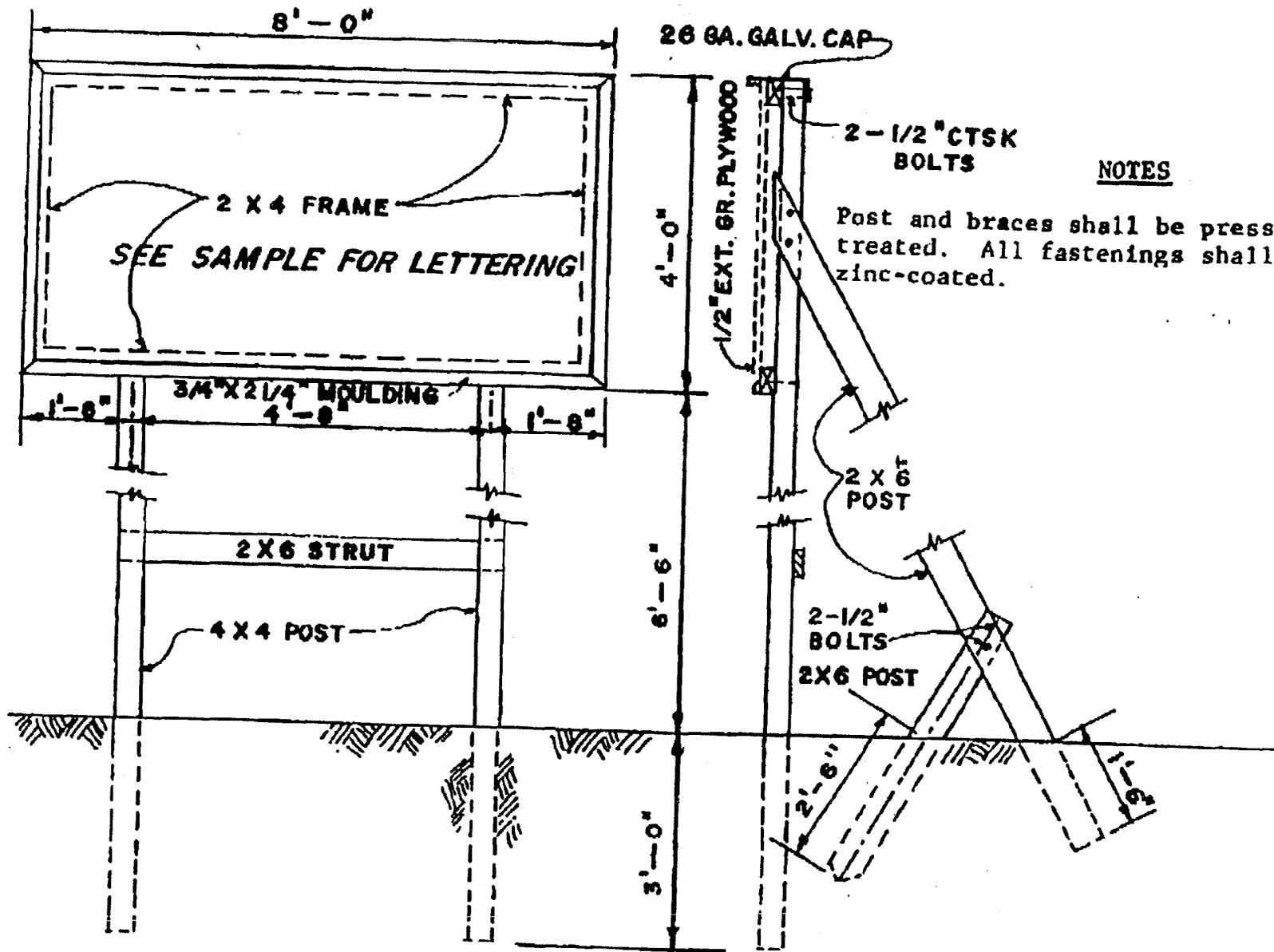
NOTE: Do not add information related to station regulations which are of a routine nature. Unusual cleanup provisions dictated by the needs of a particular project may be included, as directed.

The clause of the Contract Clauses entitled "Cleaning Up" and the following cleanup requirements apply: "Decontamination of all Government Materials"

~~3.5.8 [Existing Conditions and Extra Obligations of the Contractor]~~

NOTE: Include in this subparagraph only those special general requirements peculiar to this project which are not already covered by the Contract Clauses; Section 01010, "General Paragraphs"; or other paragraphs in this section.

-- End of Section --



NOTES

Post and braces shall be pressure-treated. All fastenings shall be zinc-coated.

01011, APPENDIX III

01011

TYPICAL CONSTRUCTION SIGN

NOT TO SCALE

CRITERIA NOTES

NOTE A: This guide specification, when edited, may require that the following information be indicated on the project drawings:

1. Paragraph entitled "Boring Logs": Boring logs.
2. Paragraph entitled "Availability of Utilities Services": Location of the connection for temporary utility services.
3. Paragraph entitled "Contractor's Storage Area": Location of the storage facility; location of temporary facilities.
4. Paragraph entitled "Project Sign": Location of the project sign and detail of the sign.

NOTE B: Use this paragraph and subparagraphs entitled "Construction Schedule," "Equipment Delivery Schedule," and "Network Analysis System," as follows:

1. Based on consultation of the EFD Code 05, the AIC/EIC may direct the deletion of this paragraph and subparagraphs entitled "Construction Schedule," "Equipment Delivery Schedule," and "Network Analysis System" and the inclusion of Section 01311, based on NFGS-01311, "Contractor Prepared Network Analysis System (NAS)."
2. Unless as directed otherwise pursuant to "a," include this paragraph and subparagraphs entitled "Construction Schedule," and "Equipment Delivery Schedule" in all projects. Include paragraph entitled "Network Analysis System" as discussed in "c."
3. Include subparagraph entitled "Network Analysis System" for projects with a Government estimate of \$500,000 or greater, unless all of paragraph entitled "Schedule and Equipment Delivery Schedule" is deleted and Section 01311 is used. Do not use both this subparagraph and Section 01311.

NOTE C: Be sure the number of days stipulated in this subparagraph is compatible with the time(s) for construction in the paragraph entitled "Commencement, Prosecution, and Completion of Work." Use the following table:

| Calendar Days for Construction | Calendar Days to Submit Schedule |
|-----------------------------------|-------------------------------------|
| 30-90 | 21 |
| 91-182 | 28 |
| 183-365 | 35 |
| 366-547 | 45 |
| 548-730 | 50 |

NOTE D: Use this paragraph, and insert in the blank the number of days allowed to complete the entire project. Completion days shall be stated in calendar days and not specific dates, except in cases where specific start dates or completion dates are required; in these cases, revise to include the specific dates.

If the estimated cost of construction for the project is less than \$25,000, use "5" with the first reference to "calendar days" on line 3, and delete the words "and the Contractor's submission of the required bonds and insurance verification." If the estimated cost of construction for the project is more than \$25,000, use "15" in the first reference to "calendar days" on line 3. The use of a period of more than 15 days is restricted to special situations such as work outside the United States.

NOTE E: The liquidated damages set forth in NAVFAC P-68, paragraph 4-211 and shown in Tables 1 through 5 below shall be used for all construction projects, except that for projects of \$25,000 or less, liquidated damages may be varied when the Contracting Officer determines that the Government's anticipated loss from delayed completion is estimated to be significantly in excess of these amounts. In such cases, a justification for each exceptional determination (including arithmetical computations) shall be made for the files. Liquidated damage variations shall require prior NAVFAC Code 021 approval.

NOTE F: List a separate liquidated damage amount to be assessed for each phase specified in paragraph entitled "Phased Construction." The total amount of liquidated damages shall not exceed the limitations shown in the tables or approved.

"TABLE 1 GENERAL CONSTRUCTION PROJECTS:

| "Estimated Project Cost | Liquidated Damages Per Calendar Day | Estimated Project Cost | Liquidated Damages Per Calendar Day |
|-------------------------|-------------------------------------|------------------------------|-------------------------------------|
| "Up to \$ 2,000 | \$4 | \$10,000 to 50,000 | \$50 |
| to 5,000 | 10 | 50,000 to 100,000 | 100 |
| to 10,000 | 20 | 100,000 to 500,000 | 200 |
| | | Each additional 100,000, add | 50 |

"TABLE 2. FAMILY HOUSING UNITS

| "Type of Units | Liquidated Damages Per Calendar Day Per Unit |
|---------------------------------|---|
| GOQ (General Officer's Quarter) | Average daily basic allowance (BAQ with dependents, plus average variable housing allowance (VHA) |
| SOQ (Senior Officer's Quarter | |
| FGO (Field Grade Officers) | |
| CGO (Company Grade Officers) | |
| SEM (Senior Enlisted Men) | |
| JEM (Junior Enlisted Men) | |

TABLE 3. UNACCOMPANIED PERSONNEL HOUSING

| "Type of Housing | Liquidated Damages Per Calendar Day Per Man | No. of Men Per Building | Liquidated Damages Per Calendar Day Per Building |
|------------------|---|-------------------------|--|
| "UOPH | \$10 | x | = |
| UEPH | 8 | x | = |

"TABLE 4. STORAGE SPACE

| "Liquidated Damages Per Calendar Day Per Square Foot | Sq. Ft. | Liquidated Damages Per Calendar Day |
|---|----------------|--|
|---|----------------|--|

| | | |
|--------------|----------------|----------------|
| \$.03 | x _____ | = _____ |
|--------------|----------------|----------------|

"TABLE 5. OFFICE SPACE

| "Liquidated Damages Per Calendar Day Per Square Foot | Sq. Ft. | = | Liquidated Damages Per Calendar Day |
|---|----------------|----------|--|
|---|----------------|----------|--|

| | | |
|--------------|----------------|----------------|
| \$.05 | x _____ | = _____ |
|--------------|----------------|----------------|

NOTE G: There are situations in which the equipment installation data or templates would allow the Contractor to prepare rough-in and proceed with construction prior to taking delivery of the Government-furnished equipment. This paragraph may be expanded to include scheduling of the delivery of installation data or templates as well as the equipment itself, if the data can be made available more quickly than the Government-furnished equipment and if advanced delivery would be helpful to the Government.

NOTE H: Choose the version of this paragraph which best satisfies the project conditions. The first alternative is best suited for projects requiring careful scheduling of Government-furnished equipment. The number of calendar days required for notification or that have elapsed before availability should be established after considering (1) a reasonable time between the Notice to Proceed and the first need for Government-furnished equipment and (2) the lead time required for Government procurement. The storage rate should be set at the commercial rate in the area of storage.

NOTE I: Government utilities listed in this paragraph may be furnished, if available without interfering with Government needs. These services

shall not be made free of charge except: (1) on Air Force projects; (2) on other projects when administrative costs exceed the value of the services; or (3) when otherwise advantageous to the Government. The general layout plan or other appropriate drawing shall indicate the point at which the Government will deliver each utility specified and should show pertinent data such as voltage, gal/min, and pipe sizes. Information regarding the types of utilities available, the rates, the points of connection' and the quantities available should be obtained from the AIC/EIC. Use the second alternative paragraph if the Government cannot provide utilities.

NOTE J: Use this paragraph on all projects involving potential conflicts with operating conditions other than utilities or where the work must be pursued in a particular sequence. Clearly detail the permissible extent of sequencing or duration of interruptions to station operation.

Note that this paragraph defines and limits the impact of Contractor's operation on station operations. If station operations affect the Contractor, that information must be included in paragraph entitled "Station Operation" and should not be dealt with in this paragraph. If the work requires different completion times for various phases of the work, this information must be included in paragraph entitled "Phased Construction" and should not be dealt with in this paragraph.

NOTE K: Edit for all projects as appropriate. Delete this paragraph and its subparagraphs unless the work is in or around existing occupied buildings or unless station operations will materially affect the Contractor's operations. Examples of the latter include.

1. Restrictions regarding the time of day (or other period) or the duration of work in an area
2. Interruptions of work in an area for operations, one time or periodic
3. Interruption of work for a specific time for operations
4. Location or restrictions on location of construction equipment
5. Maintaining access.

Contact the AIC/EIC to determine the complete

details of scheduling restraints which may impact on the successful bidder's time or cost of performance of the work, and incorporate such details in this paragraph. Note that this paragraph defines the impact of station operations upon the Contractor. If the Contractor affects station operations, include that information in paragraph entitled "Restrictions Upon Interrupting Station Operations" and not in this paragraph. If the work requires different completion times for its various phases, this information must be included in paragraph entitled "Phased Construction" and should not be dealt with in this paragraph.

NOTE L: Delete this paragraph unless information which changes or meaningfully amplifies the cited provisions is required. Unusual security provisions dictated by the needs of a particular project may be included, as directed.

Paragraph entitled "Identification Badges": Edit to include the first option, unless instructed otherwise by the AIC/EIC.

Paragraph entitled "_____": Insert any special security requirements which are peculiar to the station at which the work is to be performed.

NOTE M: Materials and equipment to be salvaged should be specified in sufficient detail to be definitive. Coordinate this paragraph with the paragraph entitled "Disposition of Material" in Section 02050, "Demolition and Removal." It should be recognized that salvage involves extra costs to the Contractor, and salvaged material and equipment must be stored and accounted for annually by the Activity.

Therefore, every effort should be made to limit salvage to items actually requested by the Activity and to clearly define these items in the specification. Materials and equipment removed and reinstalled within the same facility are not salvaged material within the scope of this paragraph. When no materials are to be salvaged for the Government, the paragraph must be deleted.

NOTE N: Preceding Section 01011 in each project specification, include the following pages:

1. The specification cover sheet. Using page 28 as a guide, prepare a specification cover sheet for use as a camera-ready master of the first page of the project specification. Substitute appropriate information where the sketch has blanks with

identifying numbers. Do not include the identifying numbers in the final manuscript; blanks without numbers indicate underlines for signatures, to appear in the final manuscript. Fill in the following at the identifying numbers listed:

- a. Appropriate engineering field division
- b. Military location of the division
- c. Specification number
- d. UIC and Construction contract number
- e. Type of appropriation, such as "MCON"
- f. Exact name of project
- g. Military location of the project
- h. Geographic location of the project
- i. Specification number.
- j. Signature of Principal of firm.

2. The Table of Contents for the project specification shall be included between the cover sheet and Section 01010. Numbers for sections not covered under the NAVFAC guide specification system shall be numbered in accordance with the CSI MP-2-1 "Masterformat," available from the Construction Specifications Institute, 601 Madison Street, Alexandria VA 22314.

3. Section 01010, "General Paragraphs."

NOTE O: "Bidding Information" is not included in Division 1 but will be placed in the bid package ahead of the specification cover sheet. See Section 00101, "Bidding Information." Do not include Section 00101, "Bidding Information" in the Table of Contents.

NOTE P: The following information must be obtained from the station. Contact the AIC/EIC before submitting the contract document (95 percent) or before the final submission (100 percent) of the project.

1. Paragraph entitled "Phased Construction": Requirements for differing completion times.
2. Paragraph entitled "Government-Furnished Material and Equipment": Listing of

Government-furnished material or equipment.

3. Paragraph entitled "Availability of Utilities Services": List of utilities to be made available to the Contractor.

4. Paragraph entitled "Contractor's Storage Area": Location and size of storage area(s).

5. Paragraph entitled "Electromagnetic Interference Suppression": Requirement for EMI suppression.

6. Paragraph entitled "Radio Transmitter Restrictions": Requirement for radio transmission restrictions.

7. Paragraph entitled "Restrictions Upon Interrupting Utility Services": Conditions applying to specific interruptions to station utilities.

8. Paragraph entitled "Restrictions Upon Interrupting Station Operations": Conditions applying to interruptions or restrictions to station operations.

9. Paragraph entitled "Occupied Building[s]": Editing instructions.

10. Paragraph entitled "Station Operation": Direction, if station operations will restrict the Contractor.

11. Paragraph entitled "Extraordinary Security Requirements": Direction, if an extraordinary security requirement warrants restrictions.

12. Paragraph entitled "Extraordinary Restrictions Regarding Access of Vehicles and Parking": Direction to include a restriction.

13. Paragraph entitled "Extraordinary Cleanup Requirements": Direction to include a restriction.

14. Paragraph entitled "Materials and Equipment To Be Salvaged": Material to be salvaged, if any.

NOTE Q: The following information will be made available by the AIC/EIC before submitting the contract document (95 percent) or before the final submission (100 percent) of the project:

1. Paragraph entitled "Contract Drawings, Maps and Specifications (JAN 1965)": NAVFAC drawing numbers; number of sets to be furnished and size anticipated.

2. Paragraph entitled "Borings Logs": Boring Logs.
(To be available at the outset of design.)

3. Paragraph entitled "Construction Categories":
Category codes for MILCON program.

4. Paragraph entitled "Technical Publications":
Requirement for Section 01013.

5. Paragraph entitled "Navy Construction
Representative's Office": Requirement for the Navy
construction representative's office.

6. Paragraph entitled "Project Sign": Requirement
for and location of the project sign; format and
wording of the project sign.

NOTE R: During the editing of the following
paragraphs, information must be coordinated with
other project specification sections.

1. Paragraph entitled "Technical Publications":
Listed sections must be included.

2. Paragraph entitled "Government-Furnished
Material and Equipment": Listed
Government-furnished material and equipment must be
identified; its installation must be described.

3. Paragraph entitled "Materials and Equipment To
be Salvaged": Listed salvage material and equipment
must be identified.

4. Paragraph entitled "Station Permits":
Specification of technical operations requiring
permits is necessary.

NOTE S: Suggestions for improvement of this
specification will be welcomed using the "Agency
Response Form" located in SPECSINTACT under "System
Directory" or DD Form 1426. Suggestions should be
forwarded to:

Commanding Officer
Naval Construction Battalion Center
Civil Engineer Support Office
Code DS03
621 Pleasant Valley Road
Port Hueneme, CA 93043-4300

-- End --

DEPARTMENT OF THE NAVY NFGS-01090
NAVAL FACILITIES 30 September 1992
ENGINEERING COMMAND -----
GUIDE SPECIFICATION Superseding NFGS-01090F (06/92)

SECTION 01090

REFERENCES
09/92

NOTE: This guide specification provides a \@listing
of organizations whose publications are referenced
in other sections of the specifications@\

NOTE: This revision "G" to NFGS-01090 amends the
issue dated 30 June 1992 by deletions and additions
to the original listing.

PART 1 GENERAL

NOTE: The article "SUMMARY" is not used by the Naval
Facilities Engineering Command, except in specialized
cases. Delete this article when editing for project
specifications.

1.1 SUMMARY

Not used.

1.2 REFERENCES

NOTE: Sponsoring organization information was
current as of the date of this section.

This paragraph is automatically edited to fit the
project when the project specifications are produced
through SPECSINTACT; however, if publications of
organizations in addition to those listed below are
used in the project, such additional organizations
must be added to this paragraph.

Reference publications are cited in other sections of the specifications
along with identification of their sponsoring organizations. The addresses
of the sponsoring organizations are listed below, and if the source of the
publications is different from the address of the sponsoring organization,

that information is also provided.

ACOUSTICAL SOCIETY OF AMERICA (ASA)
335 East 45th. Street
New York, NY 10017
Ph: 212-661-9404 Fax: 212-949-0473

AIR-CONDITIONING AND REFRIGERATION INSTITUTE (ARI)
1501 Wilson Blvd., 6th Floor
Arlington, VA 22209-2403
Ph: 703-524-8800 Fax: 703-528-3816

AIR DIFFUSION COUNCIL (ADC)
111 E. Wacker Drive, Suite 200
Chicago, IL 60601
Ph: 312-616-0800 Fax: 312-616-0226

AIR MOVEMENT AND CONTROL ASSOCIATION, INC. (AMCA)
30 West University Drive
Arlington Heights, IL 60004
Ph: 708-394-0150 Fax: 708-253-0088

AMERICAN ARCHITECTURAL MANUFACTURERS ASSOCIATION (AAMA)
1540 Dundee Road
Palatine, IL 60067-8321
Ph: 708-202-1350 Fax: 708-202-1480

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION
OFFICIALS (AASHTO)
444 North Capital, N.W., Suite 225
Washington, DC 20001
Ph: 202-624-5809 Fax: 202-624-5806

AMERICAN ASSOCIATION OF TEXTILE CHEMISTS AND COLORISTS (AATCC)
1 Davis Drive
P. O. Box 12215
Research Triangle Park, NC 27709
Ph: 919-549-8141 Fax: 919-549-8933

AMERICAN BOILER MANUFACTURERS ASSOCIATION (ABMA)
950 North Glebe Road, Suite 160
Arlington, VA 22203
Ph: 703-522-7350 Fax: 703-522-2665

AMERICAN CONCRETE INSTITUTE (ACI)
22400 West 7 Mile Road
P. O. Box 19150

Detroit, MI 48219-0150
Ph: 313-532-2600 Fax: 313-538-0655

AMERICAN CONCRETE PIPE ASSOCIATION (ACPA)
8300 Boone Boulevard, No. 400
Vienna, VA 22182
Ph: 703-821-1990 Fax: 703-821-3054

AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS (ACGIH)
650 Glenway Avenue, Bldg. D-7
Cincinnati, OH 45211-4438
Ph: 513-661-7881 Fax: 513-661-7195

AMERICAN GAS ASSOCIATION (AGA)
ATTN: Records
8501 East Pleasant Valley Road
Cleveland, OH 44131
Ph: 216-524-4990 Fax: 216-642-3463

AMERICAN GEAR MANUFACTURERS ASSOCIATION, INC. (AGMA)
1500 King Street, Suite 201
Alexandria, VA 22314
Ph: 703-684-0211 Fax: 703-684-0242

AMERICAN HARDBOARD ASSOCIATION (AHA)
520 N. Hicks Road
Palatine, IL 60067
Ph: 708-934-8800 Fax: 708-934-8803

AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)
One East Wacker Drive, Suite 3100
Chicago, IL 60601-2001
Ph: 312-670-2400 Fax: 312-670-5403

AMERICAN INSTITUTE OF TIMBER CONSTRUCTION (AITC)
11818 S.E. Mill Plain Boulevard, Suite 415
Vancouver, WA 98684
Ph: 206-254-9132 Fax: 206-254-9456

AMERICAN IRON AND STEEL INSTITUTE (AISI)
1101 17th Street, N.W., 13th Floor
Washington, DC 20036
Ph: 202-452-7100 Fax: 202-463-6573

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)
1430 Broadway

New York, New York 10018
Ph: 212-642-4900 Fax: 212-302-1286

AMERICAN PETROLEUM INSTITUTE (API)
1220 "L" Street, N.W.
Washington, DC 20005
Ph: 202-682-8000 Fax: 202-682-8537
202-682-8375 (Publications)

AMERICAN PLYWOOD ASSOCIATION (APA)
P. O. Box 11700
7011 South 19th Street
Tacoma, WA 98411-0700
Ph: 206-565-6600 Fax: 206-565-7265

AMERICAN PUBLIC HEALTH ASSOCIATION (APHA)
1015 Fifteenth Street, N.W.
Washington, DC 20005
Ph: 202-789-5600 Fax: 202-789-5661

AMERICAN RAILWAY ENGINEERING ASSOCIATION (AREA)
50 "F" Street, N.W., Suite 7702
Washington, DC 20001
Ph: 202-639-2190 Fax: 202-639-2285

AMERICAN SOCIETY FOR NONDESTRUCTIVE TESTING, INC. (ASNT)
4153 Arlingate Plaza
Columbus, OH 43228-0518
Ph: 614-274-6003 Fax: 614-274-6899
800-222-2768 (Publications)

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)
1916 Race Street
Philadelphia, PA 19103
Ph: 215-299-5400 Fax: 215-977-9679
215-299-5585 (Publications)

AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE)
United Engineering Center
345 East 47th Street
New York, NY 10017
Ph: 212-705-7510 Fax: 212-980-4681

AMERICAN SOCIETY OF HEATING, REFRIGERATING, AND AIR-CONDITIONING
ENGINEERS, INC. (ASHRAE)
1791 Tullie Circle, N.E.
Atlanta, GA 30329

Ph: 404-636-8400 Fax: 404-321-5478

AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME)
22 Law Drive
Box 2300
Fairfield, NJ 07007-2300
Ph: 800-843-2763 Fax: 201-882-1717

AMERICAN SOCIETY OF SANITARY ENGINEERING (ASSE)
P. O. Box 40362
Bay Village, OH 44140
Ph: 216-835-3040 Fax: 216-835-3488

AMERICAN SOD PRODUCERS ASSOCIATION (ASPA)
1855 Hicks Road
Rolling Meadows, IL 60008
Ph: 312-705-9898 Fax: 312-705-8347

AMERICAN WATER WORKS ASSOCIATION (AWWA)
6666 West Quincy Avenue
Denver, CO 80235
Ph: 303-794-7711 Fax: 303-794-7310

AMERICAN WELDING SOCIETY, INC. (AWS)
550 N.W. LeJeune Road
P. O. Box 351040
Miami, FL 33135
Ph: 305-443-9353 Fax: 305-443-7559

AMERICAN WOOD-PRESERVERS' ASSOCIATION (AWPA)
P. O. Box 286
Woodstock, MD 21163-0286
Ph: 301-465-3169 Fax: 301-465-3195

AMERICAN WOOD PRESERVERS BUREAU (AWPB)
P. O. Box 5283
Springfield, VA 22150
Ph: 703-339-6660 Fax: 703-339-6711

ANTI-FRICTION BEARING MANUFACTURERS ASSOCIATION (AFBMA)
1101 Connecticut Avenue, N.W., Suite 700
Washington, DC 20036
Ph: 202-429-3185 Fax: 202-223-4579

ARCHITECTURAL WOODWORK INSTITUTE (AWI)
P. O. Box 1550

Centreville, VA 22020

Ph: 703-222-1100

Fax: 703-222-2499

ASPHALT INSTITUTE (AI)

Research Park Drive

P. O. Box 14052

Lexington, KY 40512-4052

Ph: 606-288-4960

Fax: 606-288-4999

ASPHALT ROOFING MANUFACTURERS ASSOCIATION (ARMA)

6288 Montrose Road

Rockville, MD 20852

Ph: 301-231-9050

Fax: 913-341-3742

ASSOCIATED AIR BALANCE COUNCIL (AABC)

1518 "K" Street, N.W.

Washington, DC 20005

Ph: 202-737-0202

Fax: 202-638-4833

ASSOCIATED GENERAL CONTRACTORS OF AMERICA (AGCA)

1957 "E" Street, N.W.

Washington, DC 20006-5199

Ph: 202-393-2040

Fax: 202-347-4004

ASSOCIATION OF EDISON ILLUMINATING COMPANIES (AEIC)

600 No. 18th Street

P. O. Box 2641

Birmingham, AL 35291-0992

Ph: 205-250-2530

Fax: 205-250-2540

ASSOCIATION OF HOME APPLIANCE MANUFACTURERS (AHAM)

20 No. Wacker Drive

Chicago, IL 60606

Ph: 312-984-5800

Fax: 312-984-5823

BUILDERS HARDWARE MANUFACTURERS ASSOCIATION, INC. (BHMA)

355 Lexington Avenue

New York, NY 10007

Ph: 212-661-4261

Fax: 212-370-9047

BUILDING OFFICIALS & CODE ADMINISTRATORS INTERNATIONAL, INC. (BOCA)

4051 West Flossmoor Road

Country Club Hills, IL 60478-5795

Ph: 708-799-2300

Fax: 800-343-1103

CAST IRON SOIL PIPE INSTITUTE (CISPI)

5959 Shallowford Road, Suite 419
Chattanooga, TN 37421
Ph: 615-892-0137 Fax: 615-892-0817

CEILINGS & INTERIOR SYSTEMS CONTRACTORS ASSOCIATION (CISCA)
104 Wilmot Road, Suite 201
Deerfield, IL 60015-5195
Ph: 708-940-8800 Fax: 708-940-7218

CENTERS FOR DISEASE CONTROL (CDC)
Office of Biosafety
1600 Clifton Road, N.E.
Atlanta, GA 11601
Ph: 404-639-3311 Fax: 404-639-2294

CODE OF FEDERAL REGULATIONS (CFR)
Government Printing Office
Washington, DC 20402
Ph: 202-783-3238 Fax: 202-275-7703

COMMERCIAL ITEM DESCRIPTIONS (CID)
Defense Printing Service (DPS)
ATTN: Cataloging
Building 4D NPN-DODSSP
700 Robbins Avenue
Philadelphia, PA 19111-5094
Ph: Commercial: 215-697-2179/-2664
Autovon: 442-2658/-2664 Fax: 215-697-2978

or

General Services Administration
Specification Section
7th & "D" Street, S.W., Room 6654
Washington, DC 20407
Ph: 202-708-9205 Fax: 202-708-9862

COMPRESSED AIR AND GAS INSTITUTE (CAGI)
Thomas Associates, Inc.
1230 Keith Bldg.
Cleveland, OH 44115
Ph: 216-241-7333 Fax: 216-241-0105

COMPRESSED GAS ASSOCIATION, INC. (CGA)
Crystal Gateway 1, Suite 501
1235 Jefferson Davis Highway
Arlington, VA 22202
Ph: 703-979-0900 Fax: 703-979-0134

COOLING TOWER INSTITUTE (CTI)
530 Wells Fargo, Suite 113
Houston, TX 77009
Ph: 713-583-4087 Fax: 713-537-1721

or

P. O. Box 73383
Houston, TX 77273

COPPER DEVELOPMENT ASSOCIATION (CDA)
P. O. Box 1840
Greenwich, CT 06836-1840
Ph: 203-625-8210 Fax: 203-625-0174

CORPS OF ENGINEERS (COE)
U. S. Army Engineer Waterways Experiment Station
ATTN: Technical Report Distribution Section,
Services Branch, TIC
3909 Halls Ferry Road
Vicksburg, MS 39180-6199
Ph: 601-634-2485 Fax: 601-634-2506

CRANE MANUFACTURERS ASSOCIATION OF AMERICA (CMAA)
Material Handling Institute
8720 Red Oak Blvd., Suite 201
Charlotte, NC 28217
Ph: 704-522-8644 Fax: 704-522-7826

DEFENSE COMMUNICATIONS AGENCY (DCA)
U. S. Army Adjutant General Publications Center
Publications Distribution Center
2800 Eastern Blvd.
Baltimore, MD 21220
Ph: 301-671-2533 Fax: 301-584-2832

DEFENSE INTELLIGENCE AGENCY (DIA)
Director, Defense Intelligence Agency
ATTN: DIA/RTS-2D
4600 Silver Hill Road
Washington, DC 20340-3081
Ph: 202-373-4151 Fax: 202-373-3231

DEFENSE LOGISTICS AGENCY (DLA)
Cameron Station
Alexandria, VA 22304-6100
Ph: 703-274-6011 (Publications)
Autovon: 284-6775 Fax: 703-274-4069

DEPARTMENT OF AGRICULTURE (DOA)
Soil Conservation Service, USDA
P. O. Box 2890
Washington, DC 20590
Ph: 202-447-5111 Fax: 202-475-3174

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT (HUD)
Chief, Standards and Products Branch
Manufactured Housing and Construction Standards Division
Room 6270
451 7th Street, SW
Washington, DC 20410
Ph: 202-755-5718
202-708-1929 Fax: 202-708-0299

and

P. O. Box 6091
Rockville, MD 20850
Ph: 301-251-5154

DEPARTMENT OF TRANSPORTATION (DOT)
Publications Section
Attn: M443.2
400 Seventh Street, S.W.
Washington, DC 20590-0001
Ph: 202-366-0039 Fax: 202-366-3911

DISTRICT OF COLUMBIA AIR POLLUTION BOARD (DCAPB)
Compliance and Enforcement Division
Bureau of Air and Water Quality
ATTN: Wilbur G. Nelson
2100 Martin Luther King, Jr., Avenue, S.E.
Suite 203
Washington, DC 20020
Ph: 202-404-1180 Fax: 202-404-1188

DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION (DCDOT)
2000 14th Street, N.W.
6th Floor
Washington, DC 20009
Ph: 202-727-6561 Fax: 202-682-0927

DISTRICT OF COLUMBIA ENVIRONMENT CONTROL DIVISION (DCECD)
2100 Martin Luther King Jr., Avenue, S.E.
Suite 203
Washington, DC 20020
Ph: 202-404-1167 Fax: 202-404-1188

DOOR AND HARDWARE INSTITUTE (DHI)
7711 Old Springhouse Road
McLean, VA 22102
Ph: 703-222-2010 Fax: 703-356-3533

ELECTRONIC INDUSTRIES ASSOCIATION (EIA)
Global Engineering Documents
2805 McGraw Avenue
P. O. Box 19539
Irvine, CA 92713-9539
Ph: 800-854-7179
(714) 261-1455 Fax: (714) 261-7892

ENVIRONMENTAL PROTECTION AGENCY (EPA)
401 M Street, S.W.
Washington, DC 20460
Ph: 202-260-2118 Fax: 202-260-7883/-7884
202-260-5797 (Distribution)

ETL TESTING LABORATORIES (ETL)
Industrial Park
Route 11
Courtland, NY 13045
Ph: 607-753-6711 Fax: 607-756-9891

FACTORY MUTUAL ENGINEERING AND RESEARCH CORPORATION (FM)
1151 Boston-Providence Turnpike
P. O. Box 9102
Norwood, MA 02062
Ph: 617-762-4300 Fax: 617-762-9375

FEDERAL AVIATION ADMINISTRATION (FAA)
Superintendent of Documents
Government Printing Office
Washington, DC 20402-9325
Ph: 202-783-3238 Fax: 202-275-7703

FEDERAL COMMUNICATIONS COMMISSION (FCC)
Superintendent of Documents
Government Printing Office
Washington, DC 20402-9325
Ph: 202-783-3238 Fax: 202-275-7703

FEDERAL SPECIFICATIONS (FS)
Standardization Documents Order Desk
Building 4D

700 Robbins Avenue
Philadelphia, PA 19111-5094
Ph: 215-697-2179 Fax: 215-697-2978

or

General Services Administration
Specification and Consumer Information
Distribution Section (WFSLS)
7th and "D" Street, S.W., Room 6654
Washington, DC 20407
Ph: 202-708-9205 Fax: 202-708-9862

FEDERAL STANDARDS (FED-STD)
Standardization Documents Order Desk
Building 4D
700 Robbins Avenue
Philadelphia, PA 19111-5094
Ph: 215-697-2179
Autovon: 442-2179, 442-2667 Fax: 215-697-2978

or

General Services Administration
Specification and Consumer Information
Distribution Section (WFSLS)
7th and "D" Street, S.W., Room 6654
Washington, DC 20407
Ph: 202-708-9205 Fax: 202-708-9862

FEDERAL TEST METHOD STANDARDS (FTM-STD)
Standardization Documents Order Desk
Building 4D
700 Robbins Avenue
Philadelphia, PA 19111-5094
Ph: 215-697-2179 Fax: 215-697-2978

FLAT GLASS MARKETING ASSOCIATION (FGMA)
White Lakes Professional Building
3310 Harrison
Topeka, KS 66611-2279
Ph: 913-266-7013 Fax: 913-266-0272

FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC
RESEARCH (FCCCHR)
University of Southern California
KAP-200 University Park MC-2531
Los Angeles, CA 90089-0231
Ph: 213-740-2032 Fax: 213-740-8399

GAS APPLIANCE MANUFACTURERS ASSOCIATION (GAMA)
1901 North Moore Street, Suite 1100
Arlington, VA 22209
Ph: 703-525-9565 Fax: 703-525-8159

GYPSUM ASSOCIATION (GA)
810 First Street, N.E., No. 510
Washington, DC 20002
Ph: 202-289-5440 Fax: 202-289-3707

HARDWOOD PLYWOOD MANUFACTURERS ASSOCIATION (HPMA)
1825 Michael Faraday Drive
P. O. Box 2789
Reston, VA 22090-2789
Ph: 703-435-2900 Fax: 703-435-2537

HAWAII OCCUPATIONAL SAFETY AND HEALTH STANDARDS (HOSHS)
State of Hawaii
Department of Labor
Division of Occupational Safety and Health
Administration and Technical Support Branch
830 Punchbowl Street
Honolulu, HI 96813
Ph: 808-586-9086 Fax: 808-586-9104

HOIST MANUFACTURES INSTITUTE (HMI)
8720 Red Oak Blvd., Suite 201
Charlotte, NC 28217
Ph: 704-522-8644 Fax: 704-522-8644

HYDRAULIC INSTITUTE (HI)
30200 Detroit Road
Cleveland, OH 44145-1967
Ph: 216-899-0010 Fax: 216-892-1404

ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA (IES)
345 East 47th Street
New York, NY 10017
Ph: 212-705-7925/-7926 Fax: 212-705-7641

INDUSTRIAL GAS CLEANING INSTITUTE, INC. (IGCI)
1707 "L" Street, N.W., Suite 570
Washington, DC 20036
Ph: 202-457-0911 Fax: 202-331-1388

INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC. (IEEE)
445 Hoes Lane

P. O. Box 1331
Piscataway, NJ 08855-1331
Ph: 800-981-4333 Fax: 201-981-9667

INSTRUMENT SOCIETY OF AMERICA (ISA)
P. O. Box 12277
Research Triangle Park, NC 27702
Ph: 919-549-8411 Fax: 919-549-8288

INSULATED CABLE ENGINEERS ASSOCIATION (ICEA)
P. O. Box 440
South Yarmouth, MA 02664
Ph: 508-394-4424 Fax: 508-394-1194

INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL
OFFICIALS (IAPMO)
20001 Walnut Drive, South
Walnut, CA 91789-2825
Ph: 714-595-8449 Fax: 714-594-3690

INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS (ICBO)
5360 South Workman Mill Road
Whittier, CA 90601
Ph: 213-699-0541 Fax: 213-699-0543

INTERNATIONAL ELECTRICAL TESTING ASSOCIATION (NETA)
221 Red Rocks Vista Drive
P. O. Box 687
Morrison, CO 80465
Ph: 303-467-0526 Fax: 303-467-0579

INTERNATIONAL ELECTROTECHNICAL COMMISSION (IEC)
3 rue de Varembe
1211 Genene 20, Switzerland
022/34 0150

INTERNATIONAL MUNICIPAL SIGNAL ASSOCIATION (IMSA)
P. O. Box 539
Newark, NY 14513
Ph: 315-331-2182 Fax: 315-331-8205

INTERNATIONAL SLURRY SURFACING ASSOCIATION (ISSA)
1101 Connecticut Avenue, N.W., Suite 700
Department 4033
Washington, DC 20036
Ph: 202-857-1160 Fax: 202-223-4579

IRON AND STEEL SOCIETY (ISS)
410 Commonwealth Drive
Warrendale, PA 15086-7512
Ph: 412-776-9460 Fax: 412-776-0430

L. H. BAILEY HORTORIUM (LHBH)
MacMillian Publishing Company
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ATTN: Order Department
100 Front Street
Riverside, NJ 08075
Ph: 609-461-6500 Fax: 609-461-7070

MANUFACTURERS STANDARDIZATION SOCIETY OF THE VALVE AND FITTINGS
INDUSTRY, INC. (MSS)
127 Park Street, N.E.
Vienna, VA 22180
Ph: 703-281-6613 Fax: None

MAPLE FLOORING MANUFACTURERS ASSOCIATION (MFMA)
60 Revere Drive, Suite 500
Northbrook, IL 60062
Ph: 708-480-9080 Fax: 708-480-9282

MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDOE)
Air Management Administration
25 Broening Highway
Baltimore, MD 21224
Ph: 301-631-3215/3000 Fax: 301-631-3202

MARYLAND STATE HIGHWAY ADMINISTRATION (MSHA)
707 North Calvert Street
Baltimore, MD 21202
Ph: 301-333-1541 Fax: 301-333-4999

METAL BUILDING MANUFACTURERS ASSOCIATION (MBMA)
1230 Keith Building
Cleveland, OH 44115
Ph: 216-241-7333 Fax: 216-241-0105

METAL LATH/STEEL FRAMING ASSOCIATION (ML/SFA)
600 South Federal Street, Suite 400
Chicago, IL 60605
Ph: 312-922-6222 Fax: 312-922-2734

MILITARY HANDBOOKS (MIL-HDBK)

Defense Printing Service (DPS)
ATTN: Cataloging
Building 4D NPN-DODSSP
700 Robbins Avenue
Philadelphia, PA 19111-5094
Ph: Commercial: 215-697-2179/-2664
Autovon: 442-2658/-2664 Fax: 215-697-2978

MILITARY SPECIFICATION SHEET (MS)
Defense Printing Service (DPS)
ATTN: Cataloging
Building 4D NPN-DODSSP
700 Robbins Avenue
Philadelphia, PA 19111-5094
Ph: Commercial: 215-697-2179/-2664
Autovon: 442-2658/-2664 Fax: 215-697-2978

MILITARY SPECIFICATIONS (MIL)
Defense Printing Service (DPS)
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700 Robbins Avenue
Philadelphia, PA 19111-5094
Ph: Commercial: 215-697-2179/-2664
Autovon: 442-2658/-2664 Fax: 215-697-2978

MILITARY STANDARDS (MIL-STD)
Defense Printing Service (DPS)
ATTN: Cataloging
Building 4D NPN-DODSSP
700 Robbins Avenue
Philadelphia, PA 19111-5094
Ph: Commercial: 215-697-2179/-2664
Autovon: 442-2658/-2664 Fax: 215-697-2978

NATIONAL ASSOCIATION OF ARCHITECTURAL METAL MANUFACTURERS (NAAMM)
600 South Federal Street, Suite 400
Chicago, IL 60605
Ph: 312-922-6222 Fax: 312-922-2734

NATIONAL ASSOCIATION OF CORROSION ENGINEERS (NACE)
1440 South Creek Drive
P. O. Box 218340
Houston, TX 77084
Ph: 713-492-0535 Fax: 713-492-8254

NATIONAL ASSOCIATION OF GARAGE DOOR MANUFACTURERS (NAGDM)
1300 Sumner Avenue
Cleveland, OH 44115

Ph: 216-241-7333 Fax: 216-241-0105

NATIONAL ASSOCIATION OF PLUMBING-HEATING-COOLING
CONTRACTORS (NAPHCC)

P. O. Box 6808
Falls Church, VA 22046
Ph: 703-237-8100 Fax: 703-237-7442

NATIONAL BOARD OF BOILER AND PRESSURE VESSEL INSPECTORS (NBBPVI)

1055 Crupper Avenue
Columbus, OH 43229
Ph: 614-888-8320 Fax: 614-847-1828

NATIONAL CABLE TELEVISION ASSOCIATION (NCTA)

1724 Massachusetts Avenue, N.W.
Washington, DC 20036-1969
Ph: 202-775-3550 Fax: 202-775-3698

NATIONAL COUNCIL ON RADIATION PROTECTION AND MEASUREMENTS (NCRP)

7910 Woodmont Avenue, Suite 800
Bethesda, MD 20814
Ph: 301-657-2652 Fax: 301-907-8768

NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA)

2101 "L" Street, N.W., Suite 300
Washington, DC 20037
Ph: 202-457-8474 Fax: 202-457-8468

NATIONAL ENVIRONMENTAL BALANCING BUREAU (NEBB)

1385 Piccord Drive
Rockville, MD 20850
Ph: 301-977-3698 Fax: 301-977-9589

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

One Batterymarch Park
P. O. Box 9146
Quincy, MA 02269
Ph: 800-344-3555 Fax: 617-984-7057

NATIONAL FOREST PRODUCTS ASSOCIATION (NFOPA)

1250 Connecticut Avenue, N.W., Suite 200
Washington, DC 20036
Ph: 202-463-2764/-2766 Fax: 202-463-2791

NATIONAL HARDWOOD LUMBER ASSOCIATION (NHLA)

P. O. Box 34518

Memphis, TN 38134
Ph: 901-377-1818 Fax: 901-382-6419

NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH (NIOSH)
Publications Department
4676 Columbia Parkway
Cincinnati, OH 45226
Ph: 513-533-8287 Fax: 513-533-8287

or

National Technical Information Service (NTIS)
5285 Port Royal Road
Springfield, VA 22161
Ph: 800-336-4700 Fax: 703-321-8547
703-487-4650

NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY (NIST)
Route 270 and Quince Orchard Road
Gaithersburg, MD 20899
Ph: 301-975-2000 Fax: 301-975-2128

NATIONAL LIME ASSOCIATION (NLA)
3601 North Fairfax Drive
Arlington, VA 22201
Ph: 703-243-5463 Fax: 703-243-5489

NATIONAL ROOFING CONTRACTORS ASSOCIATION (NRCA)
O'Hare International Center
10255 West Higgins Road, Suite 600
Rosemont, IL 60018-5607
Ph: 708-299-9070 Fax: 708-299-1183

NATIONAL SANITATION FOUNDATION (NSF)
3475 Plymouth Road
P. O. Box 1468
Ann Arbor, MI 48106
Ph: 313-769-8010 Fax: 313-769-0109

NATIONAL TERRAZZO & MOSAIC ASSOCIATION (NTMA)
3166 Des Plaines Avenue, Suite 132
Des Plaines, IL 60018
Ph: 800-323-9736 Fax: 708-635-9127

NATIONAL WEATHER SERVICE (NWS)
4400 Stamp Road, Room 404
Temple Hills, MD 20748
Ph: 301-899-3784 Fax: 301-762-4109

NATIONAL WOOD WINDOW & DOOR ASSOCIATION (NWWDA)
1400 East Touhy Avenue, Suite G-54
Des Plaines, IL 60018
Ph: 708-299-5200 Fax: 708-299-1286

NAVAL CIVIL ENGINEERING LABORATORY (NCEL)
Technical Library, Code L06C
Port Hueneme, CA 93043
Ph: 805-982-1078 Fax: 805-982-1409
805-982-4980 805-982-1418

NAVAL ENERGY & ENVIRONMENTAL SUPPORT ACTIVITY (NEESA)
Officer in Charge
Port Hueneme, CA 93043-5014
Ph: 805-982-5751
Autovon: 551-5388 Fax: 805-982-5388

NAVAL FACILITIES ENGINEERING COMMAND (NAVFAC)
200 Stovall Street
Code 1652
Alexandria, VA 22332
Ph: 202-325-0362 Fax: 202-325-6904

NAVY DIRECTIVES (ND)
200 Stovall Street
Code DSO2B
Alexandria, VA 22332
Ph: 703-325-0450 Fax: 703-325-1916

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION (NCDOT)
#1 South Wilmington
P. O. Box 25201
Raleigh, NC 27611
Ph: 919-733-2520 Fax: 919-733-9150

NORTHEASTERN LUMBER MANUFACTURERS ASSOCIATION (NELMA)
P. O. Box 87A
Cumberland Center, ME 04021
Ph: 207-829-6901 Fax: 207-829-6901

NORTHERN VIRGINIA DIVISION, STATE AIR POLLUTION
CONTROL BOARD (NVDSAPCB)
6225 Brandon Avenue, #310
Springfield, VA 22150
Ph: 703-644-0311 Fax: 703-644-0296

PLASTICS PIPE INSTITUTE (PPI)
Wayne Interchange Plaza II
155 Route 46 West
Wayne, NJ 07470
Ph: 201-812-9076 Fax: 201-890-7029

PLUMBING AND DRAINAGE INSTITUTE (PDI)
1106 West 77th, South Drive
Indianapolis, IN 46260-3318
Ph: 317-251-6970 Fax: None

PLUMBING AND PIPING INDUSTRY COUNCIL (PPIC)
501 Shatto Place, Suite 402
Los Angeles, CA 90020
Ph: 213-487-3790 Fax: 213-487-3880

PORCELAIN ENAMEL INSTITUTE (PEI)
1101 Connecticut Avenue, N.W., Suite 700
Washington, DC 20036
Ph: 708-857-1134 Fax: 708-223-4579

PRECAST/PRESTRESSED CONCRETE INSTITUTE (PCI)
175 West Jackson Boulevard
Chicago, IL 60604
Ph: 312-786-0300 Fax: 312-786-0353

PUBLIC UTILITIES COMMISSION (PUC)
State of California
ATTN: Documents Section
505 Van Ness Avenue
San Francisco, CA 94102
Ph: 415-557-1812 Fax: None

REDWOOD INSPECTION SERVICE (RIS)
California Redwood Association
405 Enfrente Drive, Suite 200
Novato, CA 94949
Ph: 415-382-0662 Fax: 415-382-8531

RURAL ELECTRIFICATION ADMINISTRATION (REA)
USDA-REA-ASD
Administrative Services Division
Publications and Directives Management Branch
South Agriculture Building
ATTN: Publications, Room 0180
14th and Independence Avenue, SW
Washington, DC 20250
Ph: 202-382-8674 Fax: 202-382-1915

SCREEN MANUFACTURERS ASSOCIATION (SMA)
655 Irving Park at Lake Shore Drive, Suite 201
Chicago, IL 60613-3198
Ph: 312-525-2644 Fax: 312-248-9659

SEALED INSULATING GLASS MANUFACTURERS ASSOCIATION (SIGMA)
401 North Michigan Avenue
Chicago, IL 60611
Ph: 312-644-6610 Fax: 312-321-6869

SHEET METAL & AIR CONDITIONING CONTRACTORS' NATIONAL
ASSOCIATION, INC. (SMACNA)
P. O. Box 70
Merrifield, VA 22216
Ph: 703-790-9890 Fax: 703-803-3732

SINGLE-PLY ROOFING INSTITUTE (SPRI)
20 Walnut Street, Suite 208
Wellesley Hills, MA 02181
Ph: 617-237-7879 Fax: 617-237-1064

SOCIETY OF AUTOMOTIVE ENGINEERS, INC. (SAE)
400 Commonwealth Drive
Warrendale, PA 15096-0001
Ph: 412-776-4841/-5760 Fax: 412-776-5760

SOCIETY OF THE PLASTICS INDUSTRY, INC. (SPI)
1275 "K" Street, N.W., Suite 400
Washington, DC 20005
Ph: 202-371-5200 Fax: 202-371-1022

SOLAR RATING AND CERTIFICATION CORPORATION (SRCC)
Interstate Solar Coordination Council
900 America Center Building
St. Paul, MN 55101
Ph: 612-296-4737 Fax: 612-296-1290

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENT
CONTROL (SCDHEC)
334 Calhoun Street
Charleston, SC 29401
Ph: 803-724-5800 Fax: None

SOUTHERN BUILDING CODE CONGRESS INTERNATIONAL (SBCCI)
900 Montclair Road
Birmingham, AL 35213

Ph: 205-591-1853 Fax: 205-592-7001

SOUTHERN CYPRESS MANUFACTURERS ASSOCIATION (SCMA)
2831 Airways Boulevard
Memphis, TN 38132
Ph: 901-346-2222 Fax: 901-346-2233

SOUTHERN PINE INSPECTION BUREAU (SPIB)
4709 Scenic Highway
Pensacola, FL 32504
Ph: 904-434-2611 Fax: 904-433-5594

STEEL DECK INSTITUTE (SDEI)
P. O. Box 9506
Canton, OH 44711
Ph: 216-493-7886 Fax: 216-493-7886

STEEL DOOR INSTITUTE (SDI)
30200 Detroit Avenue
Cleveland, OH 44145-1967
Ph: 216-899-0010 Fax: 216-892-1404

STEEL JOIST INSTITUTE (SJI)
1205 Forty-Eight Avenue, Suite A
North Myrtle Beach, SC 29577
Ph: 803-449-0487 Fax: None

STEEL STRUCTURES PAINTING COUNCIL (SSPC)
4400 Fifth Avenue
Pittsburg, PA 15213-2683
Ph: 412-268-3327 Fax: 412-431-5428

STEEL TANK INSTITUTE (STI)
728 Anthony Trail
Northbrook, IL 60062
Ph: 708-498-1980 Fax: 708-498-3178

STEEL WINDOW INSTITUTE (SWI)
1230 Keith Building
Cleveland, OH 44115
Ph: 216-241-7333 Fax: 216-241-0105

TECHNICAL ASSOCIATION OF THE PULP AND PAPER INDUSTRY (TAPPI)
If using UPS:
15 Technology Parkway South
Norcross, GA 30092

Ph: 800-332-8686; 404-446-1400 Fax: 404-446-6947

or

If ordering by mail:
Service Department
P. O. Box 105113
Atlanta, GA 30348-5113

THE ALUMINUM ASSOCIATION, INCORPORATED (AA)
P. O. Box 753
Waldorf, MD 20601
Ph: 301-645-0756 Fax: 301-843-0159

TRUSS PLATE INSTITUTE (TPI)
583 D'Onofrio Drive, Suite 200
Madison, WI 53719
Ph: 608-833-5900 Fax: 608-833-4360

TUBULAR EXCHANGER MANUFACTURERS ASSOCIATION (TEMA)
25 North Broadway
Tarrytown, NY 10591
Ph: 914-332-0040 Fax: 914-332-1541

UNDERWRITERS LABORATORIES INC. (UL)
333 Pfingsten Road
Northbrook, IL 60062
Ph: 708-272-8800 Fax: 708-272-8129

UNI-BELL PVC PIPE ASSOCIATION (UBPPA)
2655 Villa Creek Drive, Suite 155
Dallas, TX 75234
Ph: 214-243-3902 Fax: 214-243-3907

UNIVERSITY OF CALIFORNIA DIVISION OF AGRICULTURE AND
NATURAL RESOURCES (UCDANR)
Agricultural Publication
6701 San Pablo Avenue
Oakland, CA 94608-1239
Ph: 415-642-2431 Fax: 415-643-5470

U.S. DEPARTMENT OF COMMERCE PRODUCT STANDARDS (PS)
Superintendent of Documents
U.S. Government Printing Office
Washington, DC 20402
Ph: 202-377-5494 Fax: 202-275-2529

VIRGINIA DEPARTMENT OF HIGHWAYS AND TRANSPORTATION (VDHT)
1401 East Broad Street
Richmond, VA 23219
Ph: 804-786-2801 Fax: 804-786-6250

VIRGINIA DEPARTMENT OF POLLUTION CONTROL (VDPC)
Department of Labor and Industry
205 North Fourth Street
P. O. Box 12064
Richmond, VA 23241
Ph: 804-786-2376 Fax: 804-371-6524

VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT)
1401 East Broad Street
Richmond, VA 23219
Ph: 804-786-2801 Fax: 804-786-6250

VIRGINIA DIVISION OF SOIL AND WATER CONSERVATION COMMISSION (VSWCC)
203 Governor Street, Suite 206
Richmond, VA 23219
Ph: 804-371-7489

WATER QUALITY ASSOCIATION (WQA)
4151 Naperville Road
Lisle, IL 60532
Ph: 708-505-0160 Fax: 708-505-9637

WEST COAST LUMBER INSPECTION BUREAU (WCLIB)
P. O. Box 23415
Portland, OR 97223
Ph: 503-639-0651 Fax: 503-684-8928

WESTERN WOOD PRODUCTS ASSOCIATION (WWPA)
Yeon Building
522 S.W. 5th Avenue
Portland, OR 97204-2122
Ph: 503-224-3930 Fax: 503-224-3934

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

-- End of Section --

CRITERIA NOTES

NOTE A: Suggestions for improvement of this specification will be welcomed using the "Agency Response Form" located in SPECSINTACT under "System Directory" or DD Form 1426. Suggestions should be forwarded to:

**Commanding Officer
Naval Construction Battalion Center
Civil Engineer Support Office
Code DS03
621 Pleasant Valley Road
Port Hueneme, CA 93043-4300**

-- End --

 DEPARTMENT OF THE NAVY NFGS-01300G
 NAVAL FACILITIES 30 September 1992
 ENGINEERING COMMAND -----
 GUIDE SPECIFICATION Superseding NFGS-01300F (06/92)

SECTION 01300

SUBMITTALS
09/92

 NOTE: This section covers \@submittals presented by the Contractor for review and approval, to demonstrate conformance with the design concept and the Contract documents@\ . This section includes definitions of the types of submittals required by the project specification and specifies the administrative and procedural requirements for submittals. Edit bracketed text in this NFGS to conform to the Quality Control requirements for the project.

 NOTE: This revision "G" to NFGS-01300 amends the issue dated 30 June 1992 by eliminating the "Closeouts" in the Administrative Submittal.

PART 1 GENERAL

1.1 SUMMARY

 NOTE: The article "SUMMARY" is not used by the Naval Facilities Engineering Command, except in specialized cases. Delete this article when editing for project specifications.

1.2 REFERENCES

Not used.

1.3 DEFINITIONS

1.3.1 Submittal

Shop drawings, product data, samples, and administrative and closeout submittals presented for review and approval. Contract Clauses "Material and Workmanship," paragraph (b) and "Specifications and Drawings for Construction," paragraphs (d), (e), and (f) apply to all "submittals."

1.3.2 Types of Submittals

The following four groupings of submittals into which all submittal descriptions are classified, as designated in the paragraph entitled "Schedule of Submittal Descriptions."

- a. Shop Drawings: As used in this Section, drawings, schedules, diagrams, and other data prepared specifically for this Contract, by the contractor or through the Contractor by way of a subcontractor, manufacturer, supplier, distributor, or other lower tier contractor, to illustrate a portion of the work.
- b. Product Data: Preprinted material such as illustrations, standard schedules, performance charts, instructions, brochures, diagrams, manufacturer's descriptive literature, catalog data, and other data to illustrate a portion of the work, but not prepared exclusively for this Contract.
- c. Samples: Physical examples of products, materials, equipment, assemblies, or workmanship that are physically identical to a portion of the work, illustrating a portion of the work or establishing standards for evaluating the appearance of the finished work or both.
- d. Administrative \&\ Submittals: Data presented for reviews and approval to ensure that the administrative requirements of the project are adequately met but not to ensure directly that the work is in accordance with the design concept and in compliance with the Contract documents.

1.3.3 Approving Authority

The person authorized to approve a submittal.

1.3.4 Work

As used in this Section, on- and off-site construction required by the Contract documents, including labor necessary to produce the construction and materials, products, equipment, and systems incorporated or to be incorporated in such construction.

1.4 SUBMITTALS

 NOTE: The "G," in asterisk tokens following the submittal item indicates Government approval and should be retained. Add "G" in asterisk tokens following any added submittals that are determined to require Government approvals. Submittal items not designated with a "G" will be approved by the QC organization.

Submit the following in accordance with the requirements of this section.

1.4.1 *SD-18, Records\

a. *Submittal register\ *G\

1.4.1.1 *Submittal Register\

NOTE: Use this paragraph for all projects except for SOUTHNAVFACENGCOM and LANTNAVFACENGCOM projects use the paragraph below entitled "Submittal Register Preparation."

NOTE: Usually allow 15 days after notice to proceed for small projects and 30 days to 45 days after notice to proceed for larger projects for the preparation of the submittal register. At the end of the paragraph, choose the one bracketed option which conforms to the practice of the Engineering Field Division or Station for whom the project is being prepared.

State for each submittal ^{award of the contract} the Contractor's planned submittal date. Submit within ~~30~~ days after ~~notice to proceed~~. Submit on copies of the "Submittal Register." Obtain the original from the following source:

- ~~[a. From the register with the submittal items filled in, attached.]~~
- ~~[b. From a register with submittal items filled in which will be available from the Contracting Officer at the time of the notice to proceed. The specification section number, SD number, description of item for which the submittal is required, and approving authority will be listed by the Government.]~~

~~1.4.1.2 Submittal Register Preparation~~

NOTE: Use this paragraph for SOUTHNAVFACENGCOM and LANTNAVFACENGCOM projects only.

~~Prepare and maintain a submittal register. Forms are attached after the end of section for use in developing the submittal register. The submittal register with columns (a), (b), (c), (d) completed by the Contractor is designated the initial submittal register required as a part of the quality control plan. Information for completing columns (a), (b), (c), (d) of the submittal register shall be obtained through the submittal requirements of the technical specification sections. The information needed to suit columns (a), (b), (d) is self-explanatory. For column (c), the specification paragraph number which contains the performance requirements for submittal item is intended. Other columns on the submittal register forms shall be completed as required by the approved quality control plan. Additional details concerning the use of the submittal register will be~~

~~explained at the preconstruction conference.~~

1.5 PROCEDURES FOR SUBMITTALS

1.5.1 Reviewing, Certifying, Approving Authority

The QC organization shall be responsible for reviewing and certifying that submittals are in compliance with contract requirements. The approving authority on submittals is the QC Manager unless otherwise specified for the specific submittal. At each "Submittal" paragraph in the individual specification Sections, a notation "G," following a submittal item, indicates the Contracting Officer is the approving authority for that submittal item.

1.5.2 Constraints

- a. Submittals listed or specified in this Contract shall conform to the provisions of this Section, unless explicitly stated otherwise.
- b. Submittals shall be complete for each definable feature of work; components of the definable feature interrelated as a system shall be submitted at the same time.
- c. When acceptability of a submittal is dependent on conditions, items, or materials included in separate subsequent submittals, the submittal will be returned without review.
- d. Approval of a separate material, product, or component does not imply approval of assembly in which the item functions.

1.5.3 Scheduling

- a. Coordinate scheduling, sequencing, preparing and processing of submittals with performance of the work so that work will not be delayed by submittal processing. Allow for potential requirements to resubmit.
- b. Except as specified otherwise, allow a review period, beginning with receipt by the approving authority, that includes at least ~~15~~ ~~working~~ working days for submittals for QC Manager approval and ~~20~~ ~~working~~ working days for submittals for Contracting Officer approval. The period of review for submittals with Contracting Officer approval begins when the Government receives the submittal from the QC organization. The period of review for each resubmittal is the same as for the initial submittal.

 NOTE: At the text below, use 30 working days for projects estimated to require 180 or more calendar days to construct. For projects requiring less than 180 calendar days to complete, estimate 10 calendar days for each 30 calendar days allowed for construction.

- c. For submittals requiring review by the Fire Protection Engineer, allow a review period, beginning when the Government receives the submittal from the QC organization, of ~~30~~ working days for return of the submittal to the Contractor. The period of review for each resubmittal is the same as for the initial submittal.

1.5.4 Variations

Variations from contract requirements require Government approval pursuant to Contract Clause entitled "Specifications and Drawings for Construction" and will be considered where advantageous to the Government. When proposing a variation, submit a written request to the Contracting Officer, with documentation of the nature and features of the variation and why the variation is desirable and beneficial to the Government. If lower cost is a benefit, also include an estimate of the cost saving. Identify the proposed variation separately and include the documentation for the proposed variation along with the required submittal for the item. When submitting a variation for approval, the Contractor warrants the following:

1.5.4.1 Variation Is Compatible

The Contract has been reviewed to establish that the variation, if incorporated, will be compatible with other elements of the work.

1.5.4.2 Contractor Is Responsible

The Contractor shall take actions and bear the additional costs, including review costs by the Government, necessary due to the proposed variation.

1.5.4.3 Review Schedule Is Modified

 NOTE: Allow a longer additional review period if
 the construction phase will have geographically
 scattered reviewers.

In addition to the normal submittal review period, a period of ~~10~~ working days will be allowed for consideration by the Government of submittals with variations.

~~1.5.5 Resubmittal Costs~~

~~*****
 NOTE: Use this paragraph for SOUTHNAVFACENGCOM
 projects only.
 *****~~

~~Initial submittals requiring Government approval will be reviewed at no cost to the Contractor. The cost of reviewing resubmittals, for reason of failure of the initial submittal to meet contract requirements, shall be the responsibility of the Contractor. The Contracting Officer will issue a deductive contract modification to reduce the contract price by \$100.00 for each resubmittal of items requiring Government review and approval. The~~

~~contract completion date will not be extended due to non-compliance with submittal requirements.]~~

1.5.6 Contractor's Responsibilities

- a. Determine and verify field measurements, materials, field construction criteria; review each submittal; and check and coordinate each submittal with requirements of the work and Contract documents.
- b. Transmit submittals to the QC organization in orderly sequence, in accordance with the Submittal Register, and to prevent delays in the work, delays to the Government, or delays to separate contractors.
- c. Advise the Contracting Officer of variation, as required by the paragraph entitled "Variations."
- d. Correct and resubmit submittal as directed by the approving authority. Direct specific attention, in writing or on resubmitted submittal, to revisions not requested by the approving authority on previous submissions.
- e. Furnish additional copies of submittals when requested by the Contracting Officer, to a limit of 20 submittals.
- f. Complete work which must be accomplished as a basis of a submittal in time to allow the submittal to occur as scheduled.

 NOTE: At the text below, include the bracketed phrase in SOUTHNAVFACENCOM projects only.

- g. Ensure no work has begun until submittals for that work have been returned as "approved," or "approved as noted" ~~for "approved except as noted, resubmission not required"~~, except to the extent that a portion of the work must be accomplished as a basis of the submittal.

1.5.7 QC Organization Responsibilities

- a. Note the date on which the submittal was received from the contractor on each submittal for which the QC Manager is the approving authority.
- b. Determine and verify field measurements, materials, field construction criteria; review each submittal; and check and coordinate each submittal with requirements of the work and Contract documents.
- c. Review submittals for conformance with project design concepts and compliance with the Contract documents.
- d. Act on submittals, determining the appropriate action based on the

QC organization's review of the submittal.

- (1) When the QC Manager is the approving authority, take the appropriate action on the submittal from the possible actions defined in the paragraph entitled, "Actions Possible."
- (2) When the Contracting Officer is the approving authority or when a variation has been proposed, forward the submittal to the Government with the certifying statement or return the submittal marked "not reviewed" or "revise and resubmit" as appropriate. The QC organization's review of the submittal determines the appropriate action.

e. Ensure that material is clearly legible.

f. Stamp each sheet of each submittal with the QC certifying statement or approving statement, except that data submitted in bound volume or on one sheet printed on two sides may be stamped on the front of the first sheet only.

- (1) When the approving authority is the Contracting Officer, the QC organization will certify submittals forwarded to the Contracting Officer with the following certifying statement:

N62472-92-C-0056

"I hereby certify that the (equipment) (material) (article) shown and marked in this submittal is that proposed to be incorporated with Contract Number , is in compliance with the Contract drawings and specification, can be installed in the allocated spaces, and is submitted for Government approval. Government approval of proposed variation, if any, is recommended.

Certified by Submittal Reviewer _____, Date _____
(Signature when applicable)

Certified by QC Manager _____, Date _____"
(Signature)

- (2) When the approving authority is the QC Manager, the QC manager will use the following approval statement when returning submittals to the Contractor as "Approved" or "Approved as Noted."

N62472-92-C-0056

"I hereby certify that the (material) (equipment) (article) shown and marked in this submittal and proposed to be incorporated with Contract Number , is in compliance with the contract drawings and specification, can be installed in the allocated spaces, and is approved for use, approved for use subject to Government approval of proposed variation.

Certified by Submittal Reviewer _____, Date _____
(Signature when applicable)

Approved by QC Manager _____, Date _____"
(Signature)

- g. Sign the certifying statement or approval statement. The person signing the certifying statements shall be the QC organization member designated in the approved QC plan. The signatures shall be in original ink. Stamped signatures are not acceptable.
- h. Update the submittal register as submittal actions occur and maintain the submittal register at the project site until final acceptance of all work by the Contracting Officer.
- i. Retain a copy of approved submittals at the project site, including the contractor's copy of approved samples.

 NOTE: The quantity suggested below is consistent with the total quantities called for in paragraph entitled "Quantity of Submittals"; maintain the coordination.

- j. When the approving authority is the QC Manager, forward ~~two~~ three copies of each approved submittal, except "Samples," where one set is required, to the Contracting Officer.

1.5.8 Government's Responsibilities

When the approving authority is the Contracting Officer, the Government will:

- a. Note the date on which the submittal was received from the QC Manager, on each submittal for which the Contracting Officer is the approving authority.
- b. Review submittals for approval within the scheduling period specified and only for conformance with project design concepts and compliance with the Contract documents.
- c. Identify returned submittals with one of the actions defined in the paragraph entitled "Actions Possible" and with markings appropriate for the action indicated.

 NOTE: The quantity suggested below is consistent with the total quantity called for in paragraph entitled "Quantity of Submittals;" retain the coordination.

- d. Retain ~~three~~ three copies of each submittal, except "Samples," where one copy will be retained.

1.5.9 Actions Possible

Submittals will be returned with one of the following notations:

- a. Submittals marked "not reviewed" will indicate the submittal has

been previously reviewed and approved, is not required as a submittal, does not have evidence of being reviewed and approved by the Contractor, or is not complete. A submittal marked "not reviewed" will be returned with an explanation of the reason it is not reviewed. Returned submittals deemed to lack review by the Contractor or to be incomplete shall be resubmitted with appropriate action, coordination, or change.

- b. Submittals marked "approved" "approved as submitted" authorize the Contractor to proceed with the work covered.

NOTE: At the text below, include the bracketed phrase in SOUTHNAVFACENGCOM projects only.

- c. Submittals marked "approved as noted" ~~for "approved except as noted, resubmission not required"~~ authorize the Contractor to proceed with the work as noted provided the Contractor takes no exception to the notations.
- d. Submittals marked "revise and resubmit" or "disapproved" indicate the submittal is incomplete or does not comply with the design concept or the requirements of the Contract documents and shall be resubmitted with appropriate changes.

1.6 FORMAT OF SUBMITTALS

1.6.1 Transmittal Form

Transmit each submittal, except sample installations and sample panels, to the office of the approving authority. Transmit submittals with a transmittal form prescribed by the Contracting Officer and standard for the project. The transmittal form shall identify the Contractor, indicate the date of the submittal, and include information prescribed by the transmittal form and required in the paragraph entitled "Identifying Submittals." Process transmittal forms to record actions regarding sample panels and sample installations.

1.6.2 Identifying Submittals

Identify submittals, except sample panel and sample installation, with the following information permanently adhered to or noted on each separate component of each submittal and noted on the transmittal form. Mark each copy of each submittal identically, with the following:

- a. Project title and location.
- b. Construction Contract number.
- c. The section number of the specification section by which the submittal is required.
- d. The submittal description (SD) number of each component of the

submittal.

- e. When a resubmission, an alphabetic suffix on the submittal description, for example, SD-10A, to indicate the resubmission.
- f. The name, address, and telephone number of the subcontractor, supplier, manufacturer and any other second tier contractor associated with the submittal.
- g. Product identification and location in project.

1.6.3 Format for Product Data

- a. Present product data submittals for each Section as a complete, bound volume. Include a table of contents listing page and catalog item numbers for product data.
- b. Indicate, by prominent notation, each product which is being submitted; indicate the specification Section number and paragraph number to which it pertains.
- c. Supplement product data with material prepared for the project to satisfy submittal requirements for which product data does not exist. Identify this material as developed specifically for the project.

1.6.4 Format for Shop Drawings

- a. Shop drawings shall not be less than 8 1/2 by 11 inches nor more than 30 x 42 inches.
- b. Present 8 1/2 x 11-sized shop drawings as a part of the bound volume for the submittals required by the Section. Present larger drawings in sets.
- c. Include on each drawing the drawing title, number, date, and revision numbers and dates, in addition to the information required in the paragraph entitled "Identifying Submittals."
- d. Dimension drawings, except diagrams and schematic drawings; prepare drawings demonstrating interface with other trades to scale. Identify materials and products for work shown.

1.6.5 Format of Samples

- a. Furnish samples in the sizes below, unless otherwise specified or unless the manufacturer has prepackaged samples of approximately the same size as specified:
 - (1) Sample of Equipment or Device: Full size.
 - (2) Sample of Materials Less Than 2 by 3 inches: Built up to 8 1/2 by 11 inches.
 - (3) Sample of Materials Exceeding 8 1/2 by 11 inches: Cut down to

8 1/2 by 11 inches and adequate to indicate color, texture, and material variations.

(4) Sample of Linear Devices or Materials: 10-inch length or length to be supplied, if less than 10 inches. Examples of linear devices or materials are conduit and handrails.

(5) Sample of Non-Solid Materials: Pint. Examples of non-solid materials are sand and paint.

(6) Color Selection Samples: 2 inches by 4 inches.

(7) Sample Panel: 4 feet by 4 feet.

(8) Sample Installation: 100 square feet.

b. Samples Showing Range of Variation: Where variations are unavoidable due to the nature of the materials, submit sets of samples of not less than three units showing the extremes and middle of the range.

c. Reusable Samples: Incorporate returned samples into the work only if so specified or indicated. Incorporated samples shall be in undamaged condition at the time of use.

d. Recording of Sample Installation: Note and preserve the notation of the area constituting the sample installation but remove the notation at the final clean up of the project.

NOTE: To avoid unnecessary duplication by the Contractor, use the following paragraph only when there is no color board prepared during design.

~~e. When a color, texture or pattern is specified in naming a particular manufacturer and style, include one sample of that manufacturer and style, for comparison.~~

1.6.6 Format of Administrative \&\ Submittals

a. When the submittal includes a document which is to be used in the project or become a part of the project record, other than as a submittal, do not apply the Contractor's approval stamp to the document, but to a separate sheet accompanying the document.

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\&b. Operation and Maintenance Manual Data: Submit in accordance with Section \=01730=\, "Operation and Maintenance Data." Include components required in that Section and the various technical sections.&\

1.7 QUANTITY OF SUBMITTALS

NOTE: The quantities suggested below are consistent with the quantities to be retained by the Government, in paragraphs entitled "QC Organization Responsibilities" and "Government Responsibilities;" maintain the coordination.

1.7.1 Number of Copies of Product Data

NOTE: Verify with the Contracting Officer the number of submittals required; normally "six" for Quality Control Manager approval and "seven" for Contracting Officer approval.

- a. Submit ~~six~~ four copies of submittals of product data requiring review and approval only by the QC organization and ~~seven~~ four copies of product data requiring review and approval by the Contracting Officer.

1.7.2 Number of Copies of Shop Drawings

NOTE: Verify with the Contracting Officer the number of prints required and the use of reproducibles. With the use of reproducibles, three prints are suggested since that is the number expected to be needed for Government review and filing. Without the use of reproducibles, copies of shop drawings should equal copies of product data and the bracketed sub-paragraphs should be deleted.

- a. For shop drawings presented on sheets larger than 8 1/2-inches by 14 inches, submit ~~one~~ one reproducible and ~~three~~ three prints of each shop drawing prepared for this project.

(1) Transmit reproducibles rolled in mailing tubes.

(2) After review, the approving authority will retain the prints and return only the reproducible with notation resulting from the review.

- b. For shop drawings presented on sheets 8 1/2-inches by 14 inches or less, conform to the quantity requirements for product data.

1.7.3 Number of Samples

NOTE: Verify the number of samples.

- a. Submit ~~two~~ samples, or ~~two~~ sets of samples showing range of variation, of each required item. One approved sample or set of samples will be retained by the approving authority and one will be returned to the Contractor.
- b. Submit one sample panel. Include components listed in technical section or as directed.
- c. Submit one sample installation, where directed.
- d. Submit one sample of non-solid materials.

1.7.4 Number of copies of Administrative and Closeout Submittals

- a. Unless otherwise specified, submit administrative and closeout submittals which are 8 1/2 inches by 14 inches or smaller in size in the quantity required for product data.
- b. Unless otherwise specified, submit administrative and closeout submittals larger than 8 1/2 inches by 14 inches in size in the quantities required for shop drawings.
- c. \&submit administrative submittals required under "SD-19, Operation and Maintenance Manuals" to conform to Section \=01730=\, "Operation and Maintenance Data."&\

~~1.8 [FORWARDING SUBMITTALS]~~

 NOTE: Use this article and the following paragraphs only in Atlantic Division projects. \&In the following paragraphs select only the applicable information in brackets. On A/E projects, the A/E should insert the firm name in the spaces shown, unless it is known that the A/E will not be checking samples and other submittals, including shop drawings and product data.&\

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1.8.1 Samples Required of the Contractor

Submit samples to the [Commander, Atlantic Division, Naval Facilities Engineering Command, Code 05, Naval Station, Norfolk, Virginia 23511-6287,] [Architect-Engineer: [____],] for approval.

1.8.2 Shop Drawings and Product Data

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 23511-6287,] [Architect-Engineer: [____],] ~~the shop drawings and product data required in the technical sections of~~

~~this specification. [The Architect-Engineer for this project will review and provide surveillance for the Contracting Officer to determine if Contractor-approved submittals comply with the contract requirements, and will review and approve for the Contracting Officer those submittals not permitted to be Contractor approved to determine if submittals comply with the contract requirements. One copy of the transmittal form for submittals shall be forwarded to the Resident Officer in Charge of Construction. Submit to the Commander, Atlantic Division, Naval Facilities Engineering Command, Code 05, Naval Station, Norfolk, Virginia 23511-6287 submittals for the following:~~

- a. Environmental protection plans
- [b. Testing/Adjusting/Balancing: Heating/Ventilating/Cooling System]
- [c. Fire protection system]
- [d. Fire alarm system]
- [e. Intercommunication system]]

~~[Submittals for asbestos removal and disposal shall be submitted to the Resident Officer in Charge of Construction for review and approval thereby.]~~

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1.9 SCHEDULE OF SUBMITTAL DESCRIPTIONS (SD)

 NOTE: The SD numbers and names, assigned by the SPECSINTACT Configuration, Continuity and Coordination Board, relate to the terminology of the technical sections and should not be changed. Also, see Note A at rear of text.

SD-01, Data

Submittals which provide calculations, descriptions, or other documentation regarding the work.

SD-02, Manufacturer's Catalog Data

Data composed of catalog cuts, brochures, circulars, specifications and product data, and printed information in sufficient detail and scope to verify compliance with requirements of the contract documents. A type of product data.

SD-03, Manufacturer's Standard Color Charts

Preprinted illustrations displaying choices of color and finish for a material or product. A type of product data.

SD-04, Drawings

Submittals which graphically show relationship of various components of the work, schematic diagrams of systems, detail of fabrications, layout of particular elements, connections, and other relational aspects of the work. A type of shop drawing.

SD-05, Design Data

Design calculations, mix designs, analyses, or other data, written in nature and pertaining to a part of the work. A type of shop drawing.

SD-06, Instructions

Preprinted material describing installation of a product, system, or material, including special notices and Material Safety Data Sheets, if any, concerning impedances, hazards, and safety precautions. A type of product data.

SD-07, Schedules

A tabular list of data or tabular list including location, features, or other pertinent information regarding products, materials, equipment, or components to be used in the work. A type of shop drawing.

SD-08, Statements

A document, required of the Contractor, or through the Contractor by way of a supplier, installer, manufacturer, or other lower tier contractor, the purpose of which is to further the quality or orderly progression of a portion of the work by documenting procedures, acceptability of methods or personnel, qualifications, or other verification of quality. A type of shop drawing.

SD-09, Reports

Reports of inspection and laboratory test, including analysis and interpretation of test results. Each report shall be properly identified. Test methods used and compliance with recognized test standards shall be described.

SD-10, Test Reports

A report signed by an authorized official of a testing laboratory that a material, product, or system identical to the material, product or system to be provided has been tested in accordance with requirements specified by naming the test method and material. The test report must state the test was performed in accordance with the test requirements; state the test results; and indicate whether the material, product, or system has passed or failed the test. Testing must have been within three years of the date of award of this Contract. A type of product data.

SD-11, Factory Test Reports

A written report which includes the findings of a test required to be performed by the Contractor on an actual portion of the work or prototype prepared for this project before it is shipped to the job site. The report must be signed by an authorized official of a testing laboratory and must state the test was performed in accordance with the test requirements; state the test results; and indicate whether the material, product, or system has passed or failed the test. A type of shop drawing.

SD-12, Field Test Reports

A written report which includes the findings of a test made at the job site, in the vicinity of the job site, or on a sample taken from the job site, on a portion of the work, during or after installation. The report must be signed by an authorized official of a testing laboratory or agency and must state the test was performed in accordance with the test requirements; state the test results; and indicate whether the material, product, or system has passed or failed the test. A type of shop drawing.

SD-13, Certificates

Statements signed by responsible officials of a manufacturer of a product, system, or material attesting that the product, system, or material meet specified requirements. The statements must be dated after the award of this contract, name the project, and list the specific requirements which it is intended to address. A type of shop drawing.

SD-14, Samples

Samples, including both fabricated and unfabricated physical examples of materials, products, and units of work as complete units or as portions of units of work. A type of sample.

SD-15, Color Selection Samples

Samples of the available choice of colors, textures, and finishes of a product or material, presented over substrates identical in texture to that proposed for the work. A type of sample.

SD-16, Sample Panels

An assembly constructed at the project site in a location acceptable to the Contracting Officer and using materials and methods to be employed in the work; completely finished; maintained during construction; and removed at the conclusion of the work or when authorized by the Contracting Officer. A type of sample.

SD-17, Sample Installations

A portion of an assembly or material constructed where directed and, if approved, retained as a part of the work. A type of sample.

SD-18, Records

Documentation to ensure compliance with an administrative requirement or to establish an administrative mechanism. A type of administrative \&\ submittal.

SD-19, Operation and Maintenance Manuals

Data intended to be incorporated in an Operations and Maintenance Manual. A type of administrative \&\ submittal.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

-- End of Section --

SUBMITTAL REGISTER
INSTRUCTIONS

NOTE: These instructions are addressed to the
Construction Contractor and are expected to remain a
part of the project specification, except delete
these instructions in SOUTHNAVFACENGCOM projects.

1. Use submittal register form for the project's Submittal Register and to track progress of submittals as they are processed. Users may arrange Parts "A" and "B" side-by-side in a 3-ring notebook.

2. The Government will supply submittal register forms, with columns (a) through (e) completed to the extent that will be required by the Government. Consider these forms as being for convenience only. Correct variations from requirements shown in specification sections; ensure Submittal Register conforms to specification sections.

- a. Column (a): Lists each specification section in which a submittal is required.
- b. Column (b): Lists each submittal description (SD No. and type, e.g. SD-04, Drawings) required in each specification section. Follow each submittal description with the list of material or products to be addressed in each submittal description.
- c. Column (c): Lists one principal paragraph in specification section where a material or product is specified. This listing is only to facilitate submittal reviews. Do not consider entries in column (c) as limiting project requirements; do not consider that a blank must be filled in by Contractor or the Government.
- d. Column (d): Indicates approving authority for each submittal. A "G" indicates approval by Contracting Officer; a blank indicates approval by QC Manager.
- e. Column (e): Indicates, for submittals to be approved by Contracting Officer, specific reviewers other than QC organization. This column may or may not be filled out on the copy supplied by the Government.

3. Column (f) through column (i) will be used by Contractor, QC organization and the Government on their own copies to record data established by the Contractor.

- a. Column (f): As submittals are processed, list a consecutive number assigned by Contractor for each group of submittals. Place this same number in the appropriate block of "Submittal Transmittal Form". For a resubmission, repeat transmittal control number of the original submittal with a suffix; e.g. No. "100B" is second resubmission of material originally transmitted under No. "100."

- b. Column (g): List dates scheduled for approving authority to receive submittals. These dates are the scheduled beginnings of submittal review period. The Contractor proposes these dates and the Contracting Officer approves them to establish the approved Submittal Register.
- c. Columns (h) and (i): Use to record Contractor's review when forwarding submittals to the QC organization.

4. Column (j) through column (o) will be used by Contractor, QC organization, and the Government on their own copies, in the following manner:

Contractor

- a. Column (j): Enter date submittal is delivered to QC organization if QC Manager is approving authority or to the Government via QC organization if Contracting Officer is approving authority.
- b. Columns (k) and (l): No entries are required on Contractor's copy.
- c. Columns (m) and (n): Enter action and date of action by approving authority as shown on returned submittal.
- d. Column (o): Enter date Contractor receives an acted-on submittal.

QC organization

- a. Column (j): Enter date QC organization receives submittal from Contractor.
- b. Columns (k) and (l): If approving authority is Contracting Officer, enter date QC organization forwards certified submittal to Contracting Officer.
- c. Columns (m) and (n): If approving authority is Contracting Officer, enter the Government action and date of action as shown on returned submittal. If approving authority is QC Manager, enter QC action and date of action.
- d. Column (o): Enter date QC organization returns submittal to Contractor, regardless of who is approving authority. If QC Manager is approving authority, it is also the date the information copy is forwarded to the Government.

Government

- a. Column (j): When Contracting Officer is approving authority, enter date submittal is received from QC organization.
- b. Columns (k) and (l): When Contracting Officer is approving authority, enter date submittal is routed or received from specialized reviewer, such as fire protection engineer, architect-engineer, etc.

c. Columns (m) and (n): When approving authority is Contracting Officer, enter the Government action and date of action. When approving authority is QC organization, enter QC Manager action and date of action, as indicated on information copy forwarded by QC organization.

d. Column (o): When Contracting Officer is approving authority, enter date submittal is returned to Contractor via QC organization.

Contract Number: _____ | Project Title: NAVY Master

| SPEC SECTION NO. | SD NO, AND TYPE OF SUBMITTAL MATERIAL OR PRODUCT | SPEC PARA NO. | CLASSIF/ APPR BY CO * | GOVT OR A/E REVIEWER | TRANS CONTROL NO. | PLANNED SUBMITTAL DATE |
|------------------|---|-----------------------|-----------------------------|----------------------|-------------------|------------------------|
| (a) | (b) | (c) | (d) | (e) | (f) | (g) |
| 1) 01010 | SD-18, Records | 1.3.1 | | | | |
| 2) | Report of subcontracts | 1.3.1.1 | G | Roicc | | |
| 3) | Work performed by Contractor | 3.3.2 | G | | | |
| 4) | required insurance | 1.10.2 | G | | | |
| 5) | Schedule of prices | 1.12 | G | | | |
| 6) | As-built drawings | 1.18.1 | G | | | |
| 7) | As-built record of materials <i>Quantity Surveys</i> | 1.18.2 <i>1.19</i> | G G | | | |
| 8) 01011 | SD-18, Records | 1.4.1 | | | | |
| 9) | Construction schedule | 1.4.1.1 | G | | | |
| 10) | Equipment delivery schedule | 1.4.1.2 | G | | | |
| 11) | Monthly update | 1.4.1.4 | G | | | |
| 12) | Safety plan | 3.3.5 | G | | | |
| 13) 01300 | SD-18, Records | 1.4.1 | | | | |
| 14) | Submittal register | 1.4.1.1 | G | | | |
| 15) 01400 | SD-18, Records | 1.3.1 | | | | |
| 16) | Quality Control (QC) plan | | G | | | |
| 17) 01560 | SD-08, Statements | 1.6.1 | | | | |
| 18) | Environmental protection plan | 1.7.1 | G | ↓ | | |
| 19) | Preconstruction survey | 1.7.2 | G | Roicc | | |
| 20) 01560 | SD-12, Field Test Reports | 1.6.2 | | | | |

* Navy Notes:

Approved by:

G: Contracting Officer

Blank: CQC Manager

* NASA Notes:

Approved by:

Blank: Contracting Officer

* Army Notes:

Classification:

GA: Gov't Approval

FIO: For Information Only

Contract Number: _____ | Project Title: NAVY Master

| SPEC SECTION NO. | SD NO, AND TYPE OF SUBMITTAL MATERIAL OR PRODUCT | SPEC PARA NO. | CLASSIF/ APPR BY CO * | GOVT OR A/E REVIEWER | TRANS CONTROL NO. | PLANNED SUBMITTAL DATE |
|------------------|---|---------------|-----------------------------|----------------------|-------------------|------------------------|
| (a) | (b) | (c) | (d) | (e) | (f) | (g) |
| 1) | Abrasive blasting | 3.7.2 | G | ROICC | | |
| 2) 01560 | SD-18, Records | 1.6.3 | | | | |
| 3) | Solid waste disposal permit | 1.6.3.1 | G | ROICC | | |
| 4) | Disposal permit for hazardous waste | 1.6.3.2 | G | ROICC | | |
| 5) | waste | | | | | |
| 6) 02050 | SD-08, Statements | 1.4.1 | | | | |
| 7) | Demolition plan | 1.4.1.1 | G | ROICC | | |

* Navy Notes:
 Approved by:
 G: Contracting Officer
 Blank: CQC Manager

* NASA Notes:
 Approved by:
 Blank: Contracting Officer

* Army Notes:
 Classification:
 GA: Gov't Approval
 FIO: For Information Only

Contract Number: _____ | Project Title: _____

| SPEC SECTION NO. | SD NO, AND TYPE OF SUBMITTAL MATERIAL OR PRODUCT | SPEC PARA NO. | CLASSIF/ APPR BY CO * | GOVT OR A/E REVIEWER | TRANS CONTROL NO. | PLANNED SUBMITTAL DATE |
|------------------|---|---------------|-----------------------------------|----------------------|-------------------|------------------------|
| (a) | (b) | (c) | (d) | (e) | (f) | (g) |
| 1) | | | | | | |
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* Navy Notes:
Approved by:
G: Contracting Officer
Blank: CQC Manager

* NASA Notes:
Approved by:
Blank: Contracting Officer

* Army Notes:
Classification:
GA: Gov't Approval
FIO: For Information Only

Location: _____

Contractor: _____

| CONTRACTOR ACTION | | | APPROVING AUTHORITY ACTION | | | | CONTR | REMARKS |
|-------------------|----------------|--|----------------------------|-----------------------------|-----------|----------------|---------------------------------------|---------|
| ACT. CODE | DATE OF ACTION | DATE FWD TO APPR AUTH / DATE RECD FROM CONTR | DATE FWD TO OTHER REVIEWER | DATE RECD FROM OTH REVIEWER | ACT. CODE | DATE OF ACTION | MAILED TO CONTR / RECD FROM APPR AUTH | |
| (n) | (i) | (j) | (k) | (l) | (m) | (n) | (o) | (p) |
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ACTION CODES: NR: Not Reviewed AN: Approved as Noted
A: Approved RR: Disapproved; Revise and Resubmit
(Others may be prescribed by the Transmittal Form)

CRITERIA NOTES

NOTE A: The following submittal descriptions are available for use in SPECSINTACT but are not normally used in Department of Navy Contracts. The submittal descriptions used in lieu of the unused designators are in parenthesis.

SD-01, Data (Use SD-02 or SD-05)
SD-09, Reports (Use SD-10, SD-11, or SD-12)

NOTE B: Suggestions for improvement of this specification will be welcomed using the "Agency Response Form" located in SPECSINTACT under "System Directory" or DD Form 1426. Suggestions should be forwarded to:

**Commanding Officer
Naval Construction Battalion Center
Civil Engineer Support Office
Code DS03
621 Pleasant Valley Road
Port Hueneme, CA 93043-4300**

-- End --

DEPARTMENT OF THE NAVY
NAVAL FACILITIES
ENGINEERING COMMAND
GUIDE SPECIFICATION
SHORT FORM

NFGS-SF-01400A
30 June 1992

Superseding
NFGS-SF-01400 (12/91)

SECTION 01400

QUALITY CONTROL (QC)
06/92

NOTE: This Short Form Guide Specification is for use in preparing project specifications for small projects, repair or maintenance work. It may also be used for minor elements or small quantities of work in larger projects at the discretion of the Engineer/Architect in charge. If a more detailed specification is required, use the NFGS series of specifications.

NOTE: This guide specification covers the requirement for \Quality Control (QC) for small and routine projects that do not require specific tailoring of QC requirements@\ . When a project requires specific tailoring of QC requirements, NFGS-01400 should be used in lieu of NFGS-SF-01400. Consult EFD Code 05 on which version to use. This specification section, as tailored, must be approved by EFD Code 05 or ECHELON III OICC Code 05 prior to 100% design submission. See NOTE A, located at the end of the text.

NOTE: This revision "A" to NFGS-SF-01400 amends the issue dated 31 December 1991 by updating the "REFERENCES" article, modifying submittal note, and adding instruction to print graphics on first insert graphic page.

PART 1 GENERAL

1.1 SUMMARY

NOTE: The article "SUMMARY" is not used by the Naval Engineering Command, except in specialized cases. Delete this paragraph when editing for project specifications.

1.2 REFERENCES

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.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

- \-ASTM A 880-\ 1989 Criteria for use in Evaluation of Testing Laboratories and Organizations for Examination and Inspection of Steel, Stainless Steel, and Related Alloys
- \-ASTM C 1077-\ 1991 (Rev. A) Laboratories Testing Concrete and Concrete Aggregates for Use In Construction and Criteria for Laboratory Evaluation
- \-ASTM D 3666-\ 1991 (Rev. A) Evaluating and Qualifying Agencies Testing and Inspecting Bituminous Paving Materials
- \-ASTM D 3740-\ 1988 Evaluation of Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction
- \-ASTM E 329-\ 1990 Use in the Evaluation of Testing and Inspection Agencies as Used in Construction
- \-ASTM E 543-\ 1989 (Rev. A) Determining the Qualification of Nondestructive Testing Agencies

1.3 SUBMITTALS

 NOTE: \&The "G" following submittal item indicates Government approval for that item. Add "G" with submittal tokens following any submittal item.&\

Submit the following in accordance with section \=01300=\, "Submittals."

1.3.1 *SD-18, Records*\

- a. *Quality Control (QC) plan*\ *G*\

Submit a QC plan within 15 calendar days after ^{award of the Contract} ~~receipt of Notice of Award.~~

1.4 INFORMATION FOR THE CONTRACTING OFFICER

Deliver the following to the Contracting Officer:

- a. Combined Contractor Production Report/Contractor Quality Control Report (1 sheet): Original and 1 copy, by 10:00 AM the next working day after each day that work is performed;
- b. Testing Plan and Log, 1 copy, at the end of each month;
- c. Monthly Summary Report of Field Tests: Original [and 1 copy] attached to the Contractor Quality Control Report at the end of each month;
- d. QC Meeting Minutes: 1 copy, within 2 calendar days of the meeting;
- e. Rework Items List: 1 copy, by the last working day of the month and;
- f. QC Certifications: As required by the paragraph entitled "QC Certifications."

1.5 QC PROGRAM REQUIREMENTS

Establish and maintain a QC program as described in this section. The QC program consists of a QC Manager, a QC Plan, a Coordination and Mutual Understanding Meeting, QC meetings, three phases of control, submittal review, submittal approval except for submittals designated for Contracting Officer approval, testing, and QC certifications and documentation necessary to provide materials, equipment, workmanship, fabrication, construction and operations which comply with the requirements of this contract. The QC program shall cover construction operations on-site and off-site and shall be keyed to the proposed construction sequence.

1.6 QC MANAGER

1.6.1 Duties

Provide a QC Manager at the work site to manage and implement the QC program. The QC Manager is required to attend the Coordination and Mutual Understanding Meeting, conduct the QC meetings, perform the three phases of control, perform submittal review, perform submittal approval except for submittals designated for Contracting Officer approval, ensure testing is performed and prepare QC certifications and documentation required in this Contract. In addition to managing and implementing the QC program, the QC Manager may perform the duties of project superintendent.

1.6.2 Qualifications

An individual with a minimum of 3 years experience as a foreman, superintendent, inspector, QC Manager, project manager, or construction manager on similar size and type construction contracts which included the major trades that are part of this Contract.

1.7 *QUALITY CONTROL (QC) PLAN*\

1.7.1 Requirements

Provide for approval by the Contracting Officer, a QC plan that covers, both on-site and off-site work and includes, the following:

- a. Name and qualifications, in resume format, for the QC Manager.
- b. A letter signed by an officer of the firm appointing the QC Manager and stating that he/she is responsible for implementing the QC program as described in this Contract. Include in this letter the QC Manager's authority to direct the removal and replacement of non-conforming work.

NOTE: At the text below, use the bracketed phrase when requiring the Contractor to prepare his/her own Submittal Register.

- c. Procedures for reviewing, approving and managing submittals. Provide the name{s} of the person{s} authorized to review and certify submittals prior to approval. ~~{Provide the initial submittal of the Submittal Register as specified in Section -01300-, "Submittals."}~~
- d. Testing laboratory information required by the paragraphs entitled "Accredited Laboratories" or "Testing Laboratory Requirements," as applicable.
- e. A Testing Plan and Log that includes the tests required, referenced by the specification paragraph number requiring the test, the frequency, and the person responsible for each test.
- f. Procedures to identify, record, track and complete rework items.
- g. Documentation procedures, including proposed report formats.
- h. A listing of outside organizations such as testing laboratories, architects, and consulting engineers that will be employed by the Contractor and a description of the services these firms will provide.
- i. A list of the definable features of work. A definable feature of work is a task which is separate and distinct from other tasks and requires separate control requirements. As a minimum, if approved by the Contracting Officer, consider each division of the specifications as a definable feature of work. However, at times, there may be more than one definable feature of work in each division of the specifications.

1.7.2 Preliminary Work Authorized Prior to Approval

The only work that is authorized to proceed prior to the approval of the QC plan is mobilization and surveying.

1.7.3 Approval

Approval of the QC plan is required prior to the start of construction. The Contracting Officer reserves the right to require changes in the QC plan and operations as necessary to ensure the specified quality of work. The Contracting Officer reserves the right to interview the QC Manager at any time in order to verify his/her submitted qualifications.

1.7.4 Notification of Changes

Notify the Contracting Officer, in writing, of any proposed change, a minimum of seven calendar days prior to a proposed change. Proposed changes must be approved by the Contracting Officer.

1.8 COORDINATION AND MUTUAL UNDERSTANDING MEETING

Prior to submission of the QC Plan and prior to the start of construction, meet with the Contracting Officer to discuss the QC program required by this contract. The purpose of this meeting is to develop a mutual understanding of the QC details, including forms to be used for documentation, administration for on-site and off-site work, and the coordination of the Contractor's management, production and the QC Manager with the Contracting Officer. As a minimum, the Contractor's personnel required to attend shall include the project manager, project superintendent and QC Manager. Minutes of the meeting shall be prepared by the QC Manager and signed by both the Contractor and the Contracting Officer.

1.9 QC MEETINGS

After the start of construction, the QC Manager shall conduct QC meetings once every two weeks at the work site with the project superintendent and the foreman responsible for the upcoming work. The QC Manager shall prepare the minutes of the meeting and provide a copy to the Contracting Officer within 2 working days after the meeting. The Contracting Officer may attend any of these meetings. The QC Manager shall notify the Contracting Officer at least 48 hours in advance of each meeting. As a minimum, the following shall be accomplished at each meeting:

- a. Review the minutes of the previous meeting;
- b. Review the schedule and the status of work:
 - Work or testing accomplished since last meeting
 - Rework items identified since last meeting
 - Rework items completed since last meeting;
- c. Review the status of submittals:
 - Submittals reviewed and approved since last meeting
 - Submittals required in the near future;
- d. Review the work to be accomplished in the next 2 weeks and documentation required. Schedule the three phases of control and testing:
 - Establish completion dates for rework items
 - Preparatory phases required
 - Initial phases required
 - Follow-up phases required

- Testing required
 - Status of off-site work or testing
 - Documentation required;
- e. Resolve QC and production problems; and
- f. Address items that may require revising the QC plan:
- Changes in procedures.

1.10 THREE PHASES OF CONTROL

The QC Manager shall perform the three phases of control to ensure that work complies with Contract requirements. The three phases of control shall adequately cover both on-site and off-site work and shall include the following for each definable feature of work: A definable feature of work is a task which is separate and distinct from other tasks and requires separate control requirements.

1.10.1 Preparatory Phase

Notify the Contracting Officer at least 2 working days in advance of each preparatory phase. Conduct the preparatory phase with the superintendent, and the foreman responsible for the definable feature of work. Document the results of the preparatory phase actions in the daily Contractor Quality Control Report. Perform the following prior to beginning work on each definable feature of work:

- a. Review each paragraph of the applicable specification sections;
- b. Review the contract drawings;
- c. Verify that appropriate shop drawings and submittals for materials and equipment have been submitted and approved. Verify receipt of approved factory test results, when required;
- d. Review the testing plan and ensure that provisions have been made to provide the required QC testing;
- e. Examine the work area to ensure that the required preliminary work has been completed;
- f. Examine the required materials, equipment and sample work to ensure that they are on hand and conform to the approved shop drawings and submitted data;
- g. Review the safety plan and appropriate activity hazard analysis to ensure that applicable safety requirements are met, and that required Material Safety Data Sheets (MSDS) are submitted; and
- h. Discuss construction methods.

1.10.2 Initial Phase

Notify the Contracting Officer at least 2 working days in advance of each initial phase. When construction crews are ready to start work on a

definable feature of work, conduct the initial phase with the foreman responsible for that definable feature of work. Observe the initial segment of the definable feature of work to ensure that the work complies with Contract requirements. Document the results of the initial phase in the daily Contractor Quality Control Report. Repeat the initial phase for each new crew to work on-site, or when acceptable levels of specified quality are not being met. Perform the following for each definable feature of work:

- a. Establish the quality of workmanship required;
- b. Resolve conflicts;
- c. Review the Safety Plan and the appropriate activity hazard analysis to ensure that applicable safety requirements are met; and
- d. Ensure that testing is performed.

1.10.3 Follow-Up Phase

Perform the following for on-going work daily, or more frequently as necessary until the completion of each definable feature of work and document in the daily Contractor Quality Control Report:

- a. Ensure the work is in compliance with Contract requirements;
- b. Maintain the quality of workmanship required;
- c. Ensure that testing is performed; and
- d. Ensure that rework items are being corrected.

1.10.4 Notification of Three Phases of Control for Off-Site Work

Notify the Contracting Officer at least two weeks prior to the start of the preparatory and initial phases.

1.11 SUBMITTAL REVIEW AND APPROVAL

Procedures for submission, review and approval of submittals are described in Section \=01300=\, "Submittals."

1.12 TESTING

NOTE: A check must be made to ensure that all
required Field and Factory Tests are listed in each
technical section.

Except as stated otherwise in the specification sections, perform sampling and testing required under this contract.

1.12.1 Testing Laboratory Requirements

Provide an independent testing laboratory qualified to perform sampling and tests required by this contract. When the proposed testing laboratory is not accredited by an acceptable accreditation program as described by the paragraph entitled "Accredited Laboratories", submit to the Contracting Officer for approval, certified statements signed by an official of the testing laboratory attesting that the proposed laboratory meets or conforms to the following requirements:

- a. Sampling and testing shall be under the technical direction of a Registered Professional Engineer (P.E) with at least 5 years of experience in construction material testing.
- b. Laboratories engaged in testing of concrete and concrete aggregates shall meet the requirements of \-ASTM C 1077-\.
- c. Laboratories engaged in testing of bituminous paving materials shall meet the requirements of \-ASTM D 3666-\.
- d. Laboratories engaged in testing of soil and rock, as used in engineering design and construction, shall meet the requirements of \-ASTM D 3740-\.
- e. Laboratories engaged in inspection and testing of steel, stainless steel, and related alloys will be evaluated according to \-ASTM A 880-\ . Laboratories shall meet the requirements of \-ASTM E 329-\.
- f. Laboratories engaged in nondestructive testing (NDT) shall meet the requirements of \-ASTM E 543-\.

1.12.2 Accredited Laboratories

NOTE: Request for listing additional laboratory accreditation programs shall be submitted to COMNAVFACENGCOM Code 022.

Acceptable accreditation programs are the National Institute of Standards and Technology (NIST) National Voluntary Laboratory Accreditation Program (NVLAP), the American Association of State Highway and Transportation Officials (AASHTO) program and the American Association for Laboratory Accreditation (A2LA) program. Furnish to the Contracting Officer, a copy of the Certificate of Accreditation, Scope of Accreditation and latest directory of the accrediting organization for accredited laboratories. The scope of the laboratory's accreditation shall include the test methods required by the contract.

1.12.3 Inspection of Testing Laboratories

Prior to approval of non-accredited laboratories, the proposed testing laboratory facilities and records may be subject to inspection by the Contracting Officer. Records subject to inspection include equipment inventory, equipment calibration dates and procedures, library of test procedures, audit and inspection reports by agencies conducting laboratory evaluations and certifications, testing and management personnel

qualifications, test report forms, and the internal QC procedures.

1.12.4 Capability Check

The Contracting Officer retains the right to check laboratory equipment in the proposed laboratory and the laboratory technician's testing procedures, techniques, and other items pertinent to testing, for compliance with the standards set forth in this contract.

1.12.5 Test Results

Cite applicable Contract requirements, tests or analytical procedures used. Provide actual results and include a statement that the item tested or analyzed conforms or fails to conform to specified requirements. Conspicuously stamp the cover sheet for each report in large red letters "CONFORMS" or "DOES NOT CONFORM" to the specification requirements, whichever is applicable. Test results shall be signed by a testing laboratory representative authorized to sign certified test reports. Furnish the signed reports, certifications, and other documentation to the Contracting Officer via the QC Manager. Furnish a summary report of field tests at the end of each month. Attach a copy of the summary report to the last daily contractor quality control report of each month.

1.13 QC CERTIFICATIONS

1.13.1 Contractor Quality Control Report Certification

Each Contractor Quality Control Report shall contain the following statement: "On behalf of the Contractor, I certify that this report is complete and correct and equipment and material used and work performed during this reporting period is in compliance with the contract drawings and specifications to the best of my knowledge except as noted in this report."

1.13.2 Invoice Certification

Furnish a certificate to the Contracting Officer with each payment request, signed by the QC Manager, attesting that as-built drawings are current and attesting that the work for which payment is requested, including stored material, is in compliance with contract requirements.

1.13.3 Completion Certification

Upon completion of work under this contract, the QC Manager shall furnish a certificate to the Contracting Officer attesting that "the work has been completed, inspected, tested and is in compliance with the contract."

1.14 DOCUMENTATION

Maintain current and complete records of on-site and off-site QC program operations and activities.

1.14.1 Contractor Production Report

Reports are required for each day that work is performed and shall be

attached to the Contractor Quality Control Report prepared for the same day. Account for each calendar day throughout the life of the Contract. The reporting of work shall be identified by terminology consistent with the construction schedule. Contractor Production Reports are to be prepared, signed and dated by the project superintendent and shall contain the following information:

- a. Date of report, report number, name of Contractor, Contract number, title and location of Contract and superintendent present.
- b. Weather conditions in the morning and in the afternoon including maximum and minimum temperatures.
- c. A list of Contractor and subcontractor personnel on the work site, their trades, employer, work location, description of work performed and hours worked.
- d. A list of job safety actions taken and safety inspections conducted. Indicate that safety requirements have been met including the results on the following:
 - Was a job safety meeting held? (If YES attach a copy of the meeting minutes)
 - Were there any lost time accidents? (If YES attach a copy of the completed OSHA report)
 - Was trenching/scaffold/high voltage electrical/high work done? (If YES attach a statement or checklist showing inspection performed)
 - Was hazardous material/waste released into the environment? (If YES attach description of incident and proposed action.)
- e. A list of equipment/material received each day that is incorporated into the job.
- f. A list of construction and plant equipment on the work site including the number of hours used, idle and down for repair.
- g. Include a "remarks" section in this report which will contain pertinent information including directions received, problems encountered during construction, work progress and delays, conflicts or errors in the drawings or specifications, field changes, safety hazards encountered, instructions given and corrective actions taken, delays encountered and a record of visitors to the work site.

1.14.2 Contractor Quality Control Report

Reports are required for each day that work is performed and for every seven consecutive calendar days of no-work and on the last day of a no-work period. Account for each calendar day throughout the life of the Contract. The reporting of work shall be identified by terminology consistent with the construction schedule. Contractor Quality Control Reports are to be prepared, signed and dated by the QC Manager and shall contain the following information:

- a. Identify the control phase and the definable feature of work.

- b. Results of the Preparatory Phase meetings held including the location of the definable feature of work and a list of personnel present at the meeting. Indicate in the report that for this definable feature of work, the drawings and specifications have been reviewed, submittals have been approved, materials comply with approved submittals, materials are stored properly, preliminary work was done correctly, the testing plan has been reviewed, and work methods and schedule have been discussed.
- c. Results of the Initial Phase meetings held including the location of the definable feature of work and a list of personnel present at the meeting. Indicate in the report that for this definable feature of work the preliminary work was done correctly, samples have been prepared and approved, the workmanship is satisfactory, test results are acceptable, work is in compliance with the Contract, and the required testing has been performed and include a list of who performed the tests.
- d. Results of the Follow-up Phase inspections held including the location of the definable feature of work. Indicate in the report for this definable feature of work that the work complies with the Contract as approved in the Initial Phase, and that required testing has been performed and include a list of who performed the tests.
- e. Results of the three phases of control for off-site work, if applicable, including actions taken.
- f. List the rework items identified, but not corrected by close of business.
- g. List the rework items corrected from the rework items list along with the corrective action taken.
- h. Include a "remarks" section in this report which will contain pertinent information including directions received, quality control problem areas, deviations from the QC plan, construction deficiencies encountered, QC meetings held, acknowledgement that as-built drawings have been updated, corrective direction given by the QC Manager and corrective action taken by the Contractor.
- i. Contractor Quality Control Report certification.

1.14.3 Testing Plan and Log

As tests are performed, the QC Manager shall record on the "Testing Plan and Log" the date the test was conducted, the date the test results were forwarded to the Contracting Officer, any remarks and acknowledgement that an accredited or Contracting Officer approved testing laboratory was used. Attach a copy of the updated "Testing Plan and Log" to the last daily Contractor Quality Control Report of each month.

1.14.4 Rework Items List

The QC Manager shall maintain a list of work that does not comply with the contract, identifying what items need to be reworked, the date the item was originally discovered, and the date the item was corrected. There is no requirement to report a rework item that is corrected the same day it is discovered. Attach a copy of the "Contractor Rework Items List" to the last daily Contractor Quality Control Report of each month. The Contractor shall be responsible for including on this list items needing rework including those identified by the Contracting Officer.

1.14.5 As-Built Drawings

The QC Manager is required to review the as-built drawings required by Section 01010, "General Paragraphs," to ensure that as-built drawings are kept current on a daily basis and marked to show deviations which have been made from the Contract drawings. The QC Manager shall initial each deviation or revision. Upon completion of work, the QC Manager shall submit a certificate attesting to the accuracy of the as-built drawings prior to submission to the Contracting Officer.

1.14.6 Report Forms

The following forms, which are attached at the end of this section, are acceptable for providing the information required by the paragraph entitled "Documentation." While use of these specific formats are not required, any other format used shall contain the same information:

- a. Combined Contractor Production Report and Contractor Quality Control Report (1 sheet), with separate continuation sheet.
- b. Testing Plan and Log.
- c. Rework Items List.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

-- End of Section --

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH ADDITIONAL SHEETS IF NECESSARY)

DATE _____

PHASE Y - YES; N - NO, SEE REMARKS;
BLANK - NOT APPLICABLE

IDENTIFY DEFINABLE FEATURE OF WORK, LOCATION AND LIST PERSONNEL PRESENT

PREPARATORY

| | |
|--|--|
| THE PLANS AND SPECS HAVE BEEN REVIEWED. | |
| THE SUBMITTALS HAVE BEEN APPROVED. | |
| MATERIALS COMPLY WITH APPROVED SUBMITTALS. | |
| MATERIALS ARE STORED PROPERLY. | |
| PRELIMINARY WORK WAS DONE CORRECTLY. | |
| TESTING PLAN HAS BEEN REVIEWED. | |
| WORK METHOD AND SCHEDULE DISCUSSED. | |

INITIAL

| | |
|--|--|
| PRELIMINARY WORK WAS DONE CORRECTLY. | |
| SAMPLE HAS BEEN PREPARED/APPROVED. | |
| WORKMANSHIP IS SATISFACTORY. | |
| TEST RESULTS ARE ACCEPTABLE. | |
| WORK IS IN COMPLIANCE WITH THE CONTRACT. | |

TESTING PERFORMED & WHO PERFORMED TEST

FOLLOW-UP

| | |
|---|--|
| WORK COMPLIES WITH CONTRACT AS APPROVED IN INITIAL PHASE. | |
|---|--|

TESTING PERFORMED & WHO PERFORMED TEST

REWORK ITEMS IDENTIFIED TODAY (NOT CORRECTED BY CLOSE OF BUSINESS)

REWORK ITEMS CORRECTED TODAY (FROM REWORK ITEMS LIST)

REMARKS

On behalf of the contractor, I certify that this report is complete and correct and equipment and material used and work performed during this reporting period is in compliance with the contract drawings and specifications to the best of my knowledge except as noted in this report.

AUTHORIZED QC MANAGER AT SITE

DATE

GOVERNMENT QUALITY ASSURANCE REPORT

DATE _____

QUALITY ASSURANCE REPRESENTATIVE'S REMARKS AND/OR EXCEPTIONS TO THE REPORT

GOVERNMENT QUALITY CONTROL MANAGER

DATE

CONTRACTOR QUALITY CONTROL REPORT CONTINUATION SHEET

(ATTACH ADDITIONAL SHEETS IF NECESSARY)

DATE

CONTRACT NO.

REPORT NO.

| PHASE | Y - YES; N - NO, SEE REMARKS; BLANK - NOT APPLICABLE | IDENTIFY DEFINABLE FEATURE OF WORK, LOCATION AND LIST PERSONNEL PRESENT |
|--------------------|---|---|
| PREPARATORY | THE PLANS AND SPECS HAVE BEEN REVIEWED. | |
| | THE SUBMITTALS HAVE BEEN APPROVED. | |
| | MATERIALS COMPLY WITH APPROVED SUBMITTALS. | |
| | MATERIALS ARE STORED PROPERLY. | |
| | PRELIMINARY WORK WAS DONE CORRECTLY. | |
| | TESTING PLAN HAS BEEN REVIEWED. | |
| | WORK METHOD AND-SCHEDULE DISCUSSED. | |

| PHASE | Y - YES; N - NO, SEE REMARKS; BLANK - NOT APPLICABLE | IDENTIFY DEFINABLE FEATURE OF WORK, LOCATION AND LIST PERSONNEL PRESENT |
|----------------|---|---|
| INITIAL | PRELIMINARY WORK WAS DONE CORRECTLY. | |
| | SAMPLE HAS BEEN PREPARED/APPROVED. | |
| | WORKMANSHIP IS SATISFACTORY. | |
| | TEST RESULTS ARE ACCEPTABLE. | |
| | WORK IS IN COMPLIANCE WITH THE CONTRACT. | |
| | | TESTING PERFORMED & WHO PERFORMED TEST |
| | | |

CONTRACTOR QUALITY CONTROL REPORT CONTINUATION SHEET

(ATTACH ADDITIONAL SHEETS IF NECESSARY)

DATE

CONTRACT NO.

REPORT NO.

PHASE Y - YES; N - NO; SEE REMARKS;
BLANK - NOT APPLICABLE

IDENTIFY DEFINABLE FEATURE OF WORK, LOCATION AND LIST PERSONNEL PRESENT

WORK COMPLIES WITH
CONTRACT AS APPROVED
IN INITIAL PHASE.

TESTING PERFORMED &
WHO PERFORMED TEST

FOLLOW-UP

TESTING PLAN AND LOG

| CONTRACT NUMBER | | PROJECT TITLE AND LOCATION | | | | | | CONTRACTOR | | | | |
|--|--------------------|----------------------------|--------------------------------|----|------------|-----------|---------------------|-------------|-----------|------------------|--|---------|
| SPECIFICATION SECTION AND PARAGRAPH NUMBER | ITEM OF WORK | TEST REQUIRED | ACCREDITED/ APPROVED LAB | | SAMPLED BY | TESTED BY | LOCATION OF TEST | | FREQUENCY | DATE COMPLETE | DATE FORWARDED TO CONTR. OFF. | REMARKS |
| | | | YES | NO | | | ON SITE | OFF SITE | | | | |
| | | | | | | | | | | | | |

REWORK ITEMS LIST

Contract No. and Title: _____

Contractor: _____

| NUMBER | DATE IDENTIFIED | DESCRIPTION | CONTRACT REQUIREMENT (Spec. Section and Par. No., Drawing No. and Detail No., etc.) | ACTION TAKEN BY QC MANAGER | RESOLUTION | DATE COMPLETED |
|--------|-----------------|-------------|--|----------------------------|------------|----------------|
| | | | | | | |

CRITERIA NOTES

NOTE A: This guide specification has resulted from a simplified combination of NFGS-01400, Contractor Quality Control System and NFGS-01401, Contractor Inspection System. It allows the QC Manager to perform production related duties.

NOTE B: Suggestions for improvement of this specification will be welcomed using the "Agency Response Form" located in SPECSINTACT under "System Directory" or DD Form 1426. Suggestions should be forwarded to:

**Commanding Officer
Naval Construction Battalion Center
Civil Engineer Support Office
Code DS03
621 Pleasant Valley Road
Port Hueneme, CA 93043-4300**

-- End --

DEPARTMENT OF THE NAVY NFGS-01560G
NAVAL FACILITIES 30 June 1992
ENGINEERING COMMAND -----
GUIDE SPECIFICATION Superseding NFGS-01560F (12/91)

SECTION 01560

ENVIRONMENTAL PROTECTION
06/92

NOTE: This guide specification is intended for use
in construction projects where \@environmental
protection@ is required. Requirements should be
modified as required to suit local conditions.
Requirements for asbestos removal and disposal are
contained in NFGS-02080, "Removal and Disposal of
Asbestos Materials."

NOTE: This revision "G" to NFGS-01560 amends the
issue dated 31 December 1991 by adding paragraph
from PACDIV regional to article entitled "HISTORICAL
AND ARCHAEOLOGICAL RESOURCES."

NOTE: Show the following information if relevant,
on the project drawings:

1. Borrow pit areas on Government property.
2. Landfill areas on Government property.
3. Landfill protection system.
4. Sediment and erosion control system.

PART 1 GENERAL

1.1 SUMMARY

NOTE: The article "SUMMARY" is not used by the
Naval Facilities Engineering Command, except in
specialized cases. Delete this article when editing
for project specifications.

1.2 REFERENCES

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.

CODE OF FEDERAL REGULATIONS (CFR)

- \-29 CFR 1910-SUBPART G-\ Occupational Health and Environmental Control
- \-40 CFR 261-\ Identification and Listing of Hazardous Waste
- \-40 CFR 262-\ Generators of Hazardous Waste
- \-40 CFR 263-\ Transporters of Hazardous Waste
- \-40 CFR 264-\ Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
- \-49 CFR 178-\ Shipping Container Specification

CORPS OF ENGINEERS (COE)

- \-COE EP-1165-2-304-\ 1976 Flood Plain Regulations for Flood Plain Management

NAVAL & ENERGY ENVIRONMENTAL SUPPORT ACTIVITY (NEESA)

- \-NEESA PS-015-\ 1980 Disposal of Lead-Acid Battery Electrolyte, April 18

VIRGINIA DIVISION SOIL AND WATER CONSERVATION COMMISSION (VSWCC)

- \-VSWCC VESCH-\ 1991 Virginia Erosion and Sediment Control Handbook

1.3 ~~ASBESTOS~~

Remove, handle, and dispose of asbestos in accordance with Section \=02080=\, "Removal and Disposal of Asbestos Materials."

~~1.4 [POLYCHLORINATED BIPHENYLS (PCB) CONTROL~~

 NOTE: Include this paragraph in contracts which require removal and relocation or disposal of articles containing PCB. Include a section in Division 2 of the project specification specifying detailed requirements for PCB control.

~~Remove, handle, and dispose of PCB's in accordance with Section \= =\, " "]~~

1.5 DEFINITIONS

1.5.1 Sediment

Soil and other debris that have eroded and have been transported by runoff water or wind.

1.5.2 Solid Waste

Rubbish, debris, garbage, and other discarded solid materials, except hazardous waste as defined in paragraph entitled "Hazardous Waste," resulting from industrial, commercial, and agricultural operations and from community activities.

1.5.3 Rubbish

Combustible and noncombustible wastes such as paper, boxes, glass, crockery, metal, lumber, cans, and bones.

1.5.4 Debris

Combustible and noncombustible wastes such as ashes and waste materials resulting from construction or maintenance and repair work, leaves, and tree trimmings.

1.5.5 Chemical Wastes

This includes salts, acids, alkalies, herbicides, pesticides, organic chemicals, and spent products which serve no purpose.

1.5.6 Sanitary Wastes

1.5.6.1 Sewage

Wastes characterized as domestic sanitary sewage.

1.5.6.2 Garbage

Refuse and scraps resulting from preparation, cooking, dispensing, and consumption of food.

1.5.7 Hazardous Waste

Hazardous substances as defined in \-40 CFR 261-\ or as defined by applicable state and local regulations.

1.5.8 Oily Waste

Petroleum products and bituminous materials.

1.6 SUBMITTALS

NOTE: Where a "G" in asterisk tokens follows a

submittal item, it indicates Government approval for that item. Add "G" in asterisk tokens following any added or existing submittal items deemed sufficiently critical, complex, or aesthetically significant to merit approval by the Government. Submittal items not designated with a "G" will be approved by the CQC organization.

Submit the following in accordance with Section 01300, "Submittals."

NOTE: See Note A located at rear of text.

1.6.1 *SD-08, Statements\

NOTE: Specify a requirement for an environmental protection plan only when warranted by the nature and scope of projects such as those for roadways, major earthwork, etc. Projects whose construction operations will have minimal effect on the environment need not include this requirement.

NOTE: Specify a requirement for a preconstruction survey and a report only if an environmental protection plan is also required.

~~∕~~a. *Environmental protection plan\ ~~∕~~ * G * \

~~∕~~b. *Preconstruction survey\ report\ ~~∕~~ * G * \

1.6.2 *SD-12, Field Test Reports\

a. *Abrasive blasting\ waste materials laboratory ~~∕~~ * G * \ analysis

Submit a copy of an approved laboratory analysis of materials collected as a result from sandblasting or abrasive blasting operations before disposing of waste materials.

1.6.3 *SD-18, Records\

~~∕~~a. *Solid waste disposal permit\ ~~∕~~ * G * \

~~∕~~b. *Disposal permit for hazardous waste\ ~~∕~~ * G * \

1.6.3.1 ~~∕~~*Solid Waste Disposal Permit\

Submit one copy of a ~~∕~~state~~∕~~ ~~∕~~and~~∕~~ ~~∕~~local~~∕~~ permit or license showing such ~~∕~~agency's~~∕~~ ~~∕~~agencies'~~∕~~ approval of the disposal plan.~~∕~~

1.6.3.2 ~~/*Disposal Permit for Hazardous Waste*~~

Submit a copy of the applicable EPA ~~and state~~ permit~~s~~ or license~~s~~ for transportation, treatment, storage, and disposal of hazardous waste by permitted facilities.~~*~~

1.7 ENVIRONMENTAL PROTECTION REQUIREMENTS

Provide and maintain, during the life of the contract, environmental protection as defined. Plan for and provide environmental protective measures to control pollution that develops during normal construction practice. Plan for and provide environmental protective measures required to correct conditions that develop during the construction of permanent or temporary environmental features associated with the project. Comply with Federal, state, and local regulations pertaining to the environment, including but not limited to water, air, and noise pollution.

1.7.1 ~~/*Environmental Protection Plan*~~

NOTE: Specify a requirement for an environmental protection plan only when warranted by the nature and scope of projects such as those for roadways, major earthwork, etc. Projects whose construction operations will have minimal effect on the environment need not include this requirement.

~~+Five days after the award of contract, the Contractor shall meet with the Contracting Officer to discuss the proposed environmental protection plan and to develop mutual understanding relative to the details of environmental protection, including measures for protecting natural resources, required reports, and other measures to be taken.+~~

1.7.1.1 Environmental Planning

~~+Fourteen days after the environmental protection meeting, submit [to the Contracting Officer] the proposed environmental plan for further discussion, review, and approval.+~~

1.7.1.2 Commencement of the Work

As directed by the Contracting Officer, following approval.

1.7.2 ~~/*Preconstruction Survey*~~

NOTE: Specify a requirement for a preconstruction survey and a report only if an environmental protection plan is also required.

~~+Perform a preconstruction survey of the project site with the Contracting Officer, and take photographs showing existing environmental conditions in~~

3.1.1.2 Replacement

Remove trees and other landscape features scarred or damaged by equipment operations, and replace with equivalent, undamaged trees and landscape features. Obtain Contracting Officer's approval before replacement.

3.1.1.3 Temporary Construction

Remove traces of temporary construction facilities such as haul roads, work areas, structures, foundations of temporary structures, stockpiles of excess or waste materials, and other signs of construction. Grade temporary roads, parking areas, and similar temporarily used areas to conform with surrounding contours.

3.1.2 ~~Water Resources~~

3.1.2.1 ~~Stream Crossings~~

The Contracting Officer's approval is required before any equipment will be permitted to ford live streams. In areas where frequent crossings are required, install temporary culverts or bridges. Remove temporary culverts or bridges upon completion of work, and repair the area ~~to its original condition~~ ~~or~~ ~~as indicated~~ ~~or~~ ~~as specified~~.

3.1.2.2 ~~Oily Wastes~~

Prevent oily or other hazardous substances from entering the ground, drainage areas, or local bodies of water. Surround all temporary fuel oil or petroleum storage tanks with a temporary earth berm of sufficient size and strength to contain the contents of the tanks in the event of leakage or spillage.

3.1.3 ~~Fish and Wildlife Resources~~

Do not disturb fish and wildlife. Do not alter water flows or otherwise significantly disturb the native habitat adjacent to the project and critical to the survival of fish and wildlife, except as indicated or specified.

3.2 HISTORICAL AND ARCHAEOLOGICAL RESOURCES

NOTE: \&Bracketed sentences for PACNAVFACENGCOM projects only.

Carefully protect in-place and report immediately to the Contracting Officer historical and archaeological items or human skeletal remains discovered in the course of work. Stop work in the immediate area of the discovery until directed by the Contracting Officer to resume work. [If historical and archaeological resources such as artifacts (stone tools), features (stone walls), deposits (sea shells and charcoal stained soil), human bones and other cultural remains are encountered, stop that portion of work and notify the Contracting Officer immediately. Within 36 hours the Government will determine if a change pursuant to the Contract Clauses

entitled "Changes" and "Differing Site Conditions" should be issued or to direct the Contractor to proceed without change. No adjustment in contract price or completion time will be allowed for delays that do not exceed 36 hours from the time the Contractor is notified to stop work. The Government retains ownership and control over historical and archaeological resources.}

3.2.1 Designated Areas

NOTE: Verify with the Activity if required.

The Government will monitor work in the areas ~~[listed below] [to be determined later]~~ indicated on the drawings}. Submit a work schedule for approval for these areas and notify the Contracting Officer 30 calendar days prior to starting work in these areas. Changes to the approved work schedule must be approved by the Contracting Officer 48 hours prior to commencing on that portion of work.&\

3.3 EROSION AND SEDIMENT CONTROL MEASURES

3.3.1 Burnoff

Burnoff of the ground cover is not permitted.

3.3.2 Borrow Pit Areas

Manage and control borrow pit areas to prevent sediment from entering nearby streams or lakes. Restore areas, including those outside the borrow pit, disturbed by borrow and haul operations. Restoration includes grading, replacement of topsoil, and establishment of a permanent vegetative cover. Uniformly grade side slopes of borrow pit to note more than a slope of 1 part vertical to 2 parts horizontal. Uniformly grade the bottom of the borrow pits to provide a flat bottom and drain by outfall ditches or other suitable means. Stockpile topsoil remove during the borrow pit operation, and use as part of restoring the borrow pit area.}

3.3.3 Protection of Erodible Soils

Immediately finish the earthwork brought to a final grade, as indicated or specified. Immediately protect the side slopes and back slopes upon completion of rough grading. Plan and conduct earthwork to minimize the duration of exposure of unprotected soils.}

3.3.4 Temporary Protection of Erodible Soils

Use the following methods to prevent erosion and control sedimentation:

3.3.4.1 Mechanical Retardation and Control of Runoff

Mechanically retard and control the rate of runoff from the construction site. This includes construction of diversion ditches, benches, and berms to retard and divert runoff to protected drainage courses.

3.3.4.2 ~~X~~Sediment Basins

NOTE: See Note B located at rear of text.

Trap sediment in ~~X~~temporary ~~(permanent)~~ sediment basins. ~~X~~Select a basin size to accommodate the runoff of a local ~~X~~10 ~~X~~-year storm. ~~X~~ Pump dry and remove the accumulated sediment, after each storm. Use a paved weir or vertical overflow pipe for overflow. Remove collected sediment from the site. Institute effluent quality monitoring programs. ~~X~~

3.3.4.3 ~~X~~Borrow

Permit only in areas where suitable environmental controls are not possible.]

3.3.4.4 Vegetation and Mulch

Provide temporary protection on sides and back slopes as soon as rough grading is completed or sufficient soil is exposed to require erosion protection. Protect slopes by accelerated growth of permanent vegetation, temporary vegetation, mulching, or netting. Stabilize slopes by hydroseeding, anchoring mulch in place, covering with anchored netting, sodding, or such combination of these and other methods necessary for effective erosion control.

- a. Seeding: Provide new seeding where ground is disturbed. Include topsoil or nutriment during the seeding operation necessary to ~~X~~establish ~~(reestablish)~~ a suitable stand of grass. ~~X~~The seeding operation shall be as specified in section \=02930=\, "Turf." ~~X~~

3.3.5 *General Work Requirements*\

NOTE: For LANTNAVFACENGCOM projects, use the following paragraph when the construction site is located in Virginia.

Provide and maintain erosion control measures in accordance with the \-VSWCC VESCH-\.

3.4 CONTROL AND DISPOSAL OF SOLID AND SANITARY WASTES

Pick up solid wastes, and place in containers which are regularly emptied. Do not prepare, cook, or dispose of food on the project site. Prevent contamination of the site of other areas when handling and disposing of wastes. On completion, leave the areas clean. Control and dispose of waste.

3.4.1 Disposal of Rubbish and Debris

Dispose of rubbish and debris in accordance with the requirements specified.

3.4.1.1 ~~Removal From Government Property~~

NOTE: Select the applicable paragraph(s) from the following:

NOTE: Select an optional paragraph, as appropriate, and rewrite to suit the availability and location of landfill sites and borrow or waste pits peculiar to the particular project location. Ask station representatives which method to use.

Remove and dispose rubbish and debris from Government property. ✓

~~Removal to Existing Borrow Pit~~

NOTE: Select an optional paragraph, as appropriate, and rewrite to suit the availability and location of landfill sites and borrow or waste pits peculiar to the particular project location. Ask station representatives which method to use.

Haul rubbish and debris to the borrow pit indicated or specified, and cover with a minimum of 2 feet (61 centimeters) of soil after completing rubbish and debris deposition as directed. Excavate sufficient soil for coverage before depositing waste. Begin dumping in one area of the pit, and fill to a height such that when 2 feet (61 centimeters) of soil is added, the finished contours blend with those of adjacent areas.]

[Removal to a Government Landfill

NOTE: Select optional paragraph, as appropriate and rewrite to suit availability and location of landfill sites borrow and/or waste pits peculiar to the particular project location. Ask station representatives which method to use.

Haul rubbish and debris to the Government landfill site indicated or specified. Cover deposited material after each day's operation.]

[Removal to Borrow Pit

NOTE: Select an optional paragraph, as appropriate, and rewrite to suit the availability and location of landfill sites and borrow or waste pits peculiar to the particular project location. Ask station

~~representatives which method to use.~~

~~*****~~

~~*****~~

~~NOTE: Specify in the last sentence, the depth of soil coverage.~~

~~*****~~

Haul rubbish and debris to the borrow pit being utilized for this contract, and dispose of in the void created by excavation for borrow material. Excavate sufficient soil to provide a minimum of 2 feet (61 centimeters) of cover over the deposited rubbish and debris. Grade and restore area as specified in Section \=02221=\, "Earthwork for Structures and Pavements." Begin dumping in one area of the pit, and fill to a height such that when [2] [_____] feet ([6] [_____] centimeters) of soil is added, finished contours blend with those of adjacent areas.]

3.4.1.2 [Landfill Modifications

~~*****~~

~~NOTE: Landfill protection system for landfill located in flood plain areas shall be included in the project design and included as part of the contract documents.~~

~~*****~~

Protect the landfill located in a flood plain against at least the 100-year design flood by impervious dikes and other means to prevent floodwaters from contacting deposited rubbish and debris as indicated in accordance with \-COE EP-1165-2-304-\.]

3.4.2 Garbage Disposal

~~*****~~

~~NOTE: Select the applicable paragraph(s) from the following:~~

~~*****~~

~~*****~~

~~NOTE: Use the first optional paragraph where the construction project is located in the area where garbage collection by the station is accomplished on a scheduled basis. Use the second optional paragraph where the construction project is located in area where there is no scheduled garbage collection.~~

~~*****~~

~~Place garbage in approved containers; the Government will provide pickup and disposal service.]~~

~~*****~~

~~NOTE: Use the first optional paragraph where the construction project is located in an area where garbage collection by the station is accomplished on~~

a scheduled basis. Use the second optional paragraph where the construction project is located in area where there is no scheduled garbage collection.

~~{Place garbage in approved containers, and move to a pickup point or disposal area, where directed.}~~

3.4.3 Sewage, Odor, and Pest Control

Dispose of sewage through connection to ~~the~~ municipal, ~~the~~ district, ~~the~~ or ~~the~~ station sanitary sewage system ~~is~~. Where such system ~~is~~ ~~is~~ ~~are~~ not available, use chemical toilets or comparably effective units, and periodically empty wastes into ~~the~~ municipal, ~~the~~ district, ~~the~~ or ~~the~~ station sanitary sewage system ~~is~~, or construct and maintain an approved type of adequate sanitary convenience for the use of persons employed on the work in accordance with the General Paragraphs titled, "SANITATION." Include provisions for pest control and elimination of odors.

3.5 CONTROL AND DISPOSAL OF HAZARDOUS WASTE

3.5.1 Hazardous Type Waste

Store hazardous waste in approved containers (\-49 CFR 178-\) properly labeled to identify the type of waste and the date the container was filled. Remove the containers from the project site, and store and dispose of hazardous waste in accordance with \-40 CFR 263-\ and \-40 CFR 264-\. For oil and hazardous material spills, notify the Contracting Officer immediately.

3.5.2 Petroleum Products

Conduct the fueling and lubricating of equipment and motor vehicles to protect against spills and evaporation. Dispose of lubricants to be discarded and all excess oil.

3.5.3 Lead-Acid Battery Electrolyte

Dispose of electrolyte solution from lead-acid batteries. Do not dump electrolyte onto the ground or into storm drains or sanitary sewers without first neutralizing the electrolyte. Use one of the following alternatives for disposal of waste electrolyte:

- a. An industrial waste treatment plant, if available and approved by the Contracting Officer for neutralizing and disposing of battery acid electrolyte.
- b. Transport the electrolyte to a state-approved hazardous waste disposal site. The method of transportation and equipment shall comply with applicable Federal and state regulations.
- c. Use an EPA-approved existing tank located on station or construct a neutralization tank. The neutralization process shall be in accordance with \-NEESA PS-015-\.

3.5.4 ~~/~~Equipment (Hazardous Material)

 NOTE: Modify the number of sets of protective equipment as required, depending on the size of the hazardous removal project. Retain this paragraph whenever the project requires removal of hazardous material or when work is required in proximity to hazardous materials.

Make available to the Contracting Officer or the Contracting Officer's Representative, ~~one~~, ~~two~~, ~~three~~ complete sets of the proper personal protective equipment as required herein for entry into the inspection of the hazardous control area. Provide equivalent training to the Contracting Officer or a designated representative in the use of the required personal protective equipment as that provided to Contractor employees. Provide manufacturer's certificate of compliance for all equipment required. ~~X~~

3.5.4.1 ~~/~~Protective Clothing

Provide personnel exposed to the hazardous area with proper protective whole body clothing, head coverings, gloves, and foot coverings.]

3.6 DUST CONTROL

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

3.7 ABRASIVE BLASTING

 NOTE: Determine whether the paint to be removed contains any hazardous components. Test a representative sample of the paint in accordance with 40 CFR 261. Include a bracketed paragraph on hazardous waste if it is determined the paint is toxic.

3.7.1 Blasting Operations

Provide tarpaulin drop cloths and windscreens to enclose abrasive blasting operations to confine and collect dust, abrasive, agent, paint chips, and other debris ~~/~~in accordance with the requirements specified. ~~/~~Perform work involving removal of hazardous material in accordance with \&\-29 CFR

1910-SUBPART G-\&\.X Dispose of abrasive blasting waste containing XleadX
[and] [] in accordance with \-40 CFR 262-\, \-40 CFR 263-\, and \-40
CFR 264-\.] XDispose of nonhazardous abrasive blasting debris in
accordance with the paragraph titled, "Disposal of Rubbish and Debris."X

3.7.2 Disposal Requirements

\+Collect dust, sand, paint, and other debris resulting from *abrasive
blasting*\ operations and store in 55-gallon drums with watertight lids.
Take a representative sample of this material, and test for EP toxicity
with respect to lead, chromium, and cadmium content.+ \ The sampling and
testing shall be performed in accordance with \-40 CFR 261-\. XHandle
debris resulting from the abrasive blasting operations as a hazardous
material, and dispose of in accordance with \-40 CFR 262-\, \-40 CFR 263-\,
and \-40 CFR 264-\. Meet all applicable requirements in this process.
Hazardous material shall be transported only by a transporter licensed and
permitted for transportation of hazardous materials. Hazardous material
shall be disposed of in an EPA-approved and permitted facility specifically
designated for hazardous waste disposal.X

3.8 NOISE

NOTE: Include a bracketed requirement when pile
driving is required in the project and the site of
work is near residential areas.

Make the maximum use of low-noise emission equipment. Blasting or use
of explosives will not be permitted without written permission from the
Contracting Officer, and then only during the designated times. [Confine
pile-driving operations to the period between 8 a.m. and 4 p.m., Monday
through Friday, exclusive of holidays, unless otherwise specified.]

3.9 HAZARDOUS WASTE GENERATION

Handle generated hazardous waste in accordance with \-40 CFR 262-\.

3.10 HAZARDOUS WASTE DISPOSAL

Dispose of hazardous waste in accordance with \-40 CFR 263-\ and \-40 CFR
264-\.

-- End of Section --

CRITERIA NOTES

NOTE A: The electronic version of this guide specification includes symbols to allow automatic generation of a list of submittals; when preparing a project specification using a word processor, retain these symbols and include similar symbols if further submittals are added. Do not restate the number of copies to be submitted, unless the quantities required by the Contract Clauses and Division 1 are to be superseded.

NOTE B: The appropriate design-year storm is determined by the downstream environment to be protected. In the event permanent sediment basins are necessary for the particular project, these permanent facilities shall be included in the project design and included as part of the contract documents. If permanent basins are not required, delete reference thereto. For natural environments, the following general guidelines should be followed:

| Downstream Environment | Design-Year Storm |
|--|-------------------|
| Dry wash or areas without significant vegetation | 0-1 |
| Seasonal creek or highly vegetative areas | 10 |
| Stream, river, estuary, or other open waters | 25 |
| Lake, reservoir, harbor, bay, or other closed waters | 50 |

NOTE C: Suggestions for improvement of this specification will be welcomed using the "Agency Response Form" located in SPECSINTACT under "System Directory" or DD Form 1426. Suggestions should be forwarded to:

Commanding Officer
 Naval Construction Battalion Center
 Civil Engineer Support Office
 Code DS03
 Port Hueneme, CA 93043-5000

-- End --

DEPARTMENT OF THE NAVY NFGS-01730D
NAVAL FACILITIES 28 February 1991
ENGINEERING COMMAND -----
GUIDE SPECIFICATION Superseding NFGS-01730C (12/90)

SECTION 01730

OPERATION AND MAINTENANCE DATA
02/91

NOTE: This guide specification covers Contractor
\@submittal requirements for data packages necessary
to form the base for A&E preparation of Operating
and Maintenance Support Information (OMSI)
Manuals@.

Normally, responsibilities for preparing Operation
and Maintenance (O&M) data packages and finally OMSI
manuals will be as follows:

1. Project Contractor: Provides submittals from
manufacturers and suppliers to meet the requirements
of this guide specification.

a. Manufacturer's Cut-Sheets: These submittals
will probably be the O&M data normally
offered by manufacturers for each of their
individual components.

b. Supplier-Furnished O&M Manuals: In many
instances, the Contractor's supplier is in a
good position to provide more than just
manufacturer's cut-sheets. The supplier can
provide a manual that covers a complete
system of interrelated components, a manual
which includes interconnecting wiring
diagrams, narrative system control
sequences, and system operating
instructions. The requirements for this
supplier-furnished O&M manual should be
completely specified in the individual
technical section which covers the
particular system.

2. Architectural/Engineering Firm (normally the
project design firm): Reviews the
Contractor-furnished submittals, obtains additional
data, as required from the Contractor, and prepares
the OMSI manuals for the facility user.

NOTE: This revision "D" to NFGS-01730 amends the issue dated 31 December 1990 by updating "REFERENCES," and "SUBMITTALS" have been revised to accommodate the new "Submittal Register."

PART 1 GENERAL

1.1 SUMMARY

NOTE: The article "Summary" is not used by the Naval Facilities Engineering Command, except in specialized cases. Delete this article when editing for project specifications.

1.2 REFERENCES

The publication listed below forms a part of this specification to the extent referenced. The publication is referred to in the text by the basic designation only.

DEFENSE LOGISTICS AGENCY (DLA)

\-DLA H4/H8-\

Federal Cataloging Handbook Commercial and Government Entity (CHEE), Sections A and B, United States and Canada, Sections C and D, NATO, Supply Code for Manufacturers

1.3 SUBMISSION OF OPERATION AND MAINTENANCE DATA

NOTE: The provisions of this section apply only to those items requiring operation and maintenance by the technical sections. The technical sections should include a paragraph entitled, "SD-19, Operation and Maintenance Manuals," stating: "Submit operation and maintenance data in accordance with Section 01730, "Operations and Maintenance Data." Requirements peculiar to certain equipment shall be covered in the pertinent technical section.

Submit operation and maintenance (O&M) data which is specifically applicable to this contract and a complete and concise depiction of the provided equipment or product. Data containing extraneous information to be sorted through to find applicable instructions will not be accepted. Present information in sufficient detail to clearly explain user O&M requirements at the system, equipment, component, and subassembly level. Include an index preceding each submittal. Submit in accordance with Section \=01300=\, "Submittals."

1.3.1 Quantity

Submit five copies of the manufacturers' information specified herein for the components, assemblies, subassemblies, attachments, and accessories. The items for which O&M data is required are listed in the technical sections which specify that particular item.

1.3.2 Package Content

For each product, system, or piece of equipment requiring submission of O&M data, submit the package required in the individual technical section. Package content shall be as required in the paragraph entitled "Schedule of Operations and Maintenance Data Packages."

1.3.3 Delivery

Submit O&M data to the Contracting Officer for review and acceptance; submit data specified for a given item within 30 calendar days after the item is delivered to the contract site.

1.3.4 Changes to Submittals

Manufacturer-originated changes or revisions to submitted data shall be furnished by the Contractor if a component of an item is so affected subsequent to acceptance of the O&M data. Changes, additions, or revisions required by the Contracting Officer for final acceptance of submitted data, shall be submitted by the contractor within 30 calendar days of the notification of this change requirement.

1.4 TYPES OF INFORMATION REQUIRED IN O&M DATA PACKAGES

NOTE: The type of O&M data needed for any product, system, or piece of equipment depends upon the complexity of that item. These types of O&M data, defined below, are grouped into data packages in the paragraph entitled "Schedule of Operation and Maintenance Data Packages." The data package numbers, in turn, appear in the technical guide specifications.

1.4.1 Operating Instructions

Include specific instructions, procedures, and illustrations for the following phases of operation:

1.4.1.1 Safety Precautions

List personnel hazards and equipment or product safety precautions for all operating conditions.

1.4.1.2 Operator Prestart

Include requirements to set up and prepare each system for use.

1.4.1.3 Startup, Shutdown, and Postshutdown Procedures

Include a control sequence for each of these operations.

1.4.1.4 Normal Operations

Include control diagrams with data to explain operation and control of systems and specific equipment.

1.4.1.5 Emergency Operations

Include emergency procedures for equipment malfunctions to permit a short period of continued operation or to shut down the equipment to prevent further damage to systems and equipment. Include emergency shutdown instructions for fire, explosion, spills, or other foreseeable contingencies. Provide guidance on emergency operations of all utility systems including valve locations and portions of systems controlled.

1.4.1.6 Operator Service Requirements

Include instructions for services to be performed by the operator such as lubrication, adjustments, and inspection.

1.4.1.7 Environmental Conditions

Include a list of environmental conditions (temperature, humidity, and other relevant data) which are best suited for each product or piece of equipment and describe conditions under which equipment should not be allowed to run.

1.4.2 Preventive Maintenance

Include the following information for preventive and scheduled maintenance to minimize corrective maintenance and repair.

1.4.2.1 Lubrication Data

Include lubrication data, other than instructions for lubrication in accordance with paragraph entitled "Operator Service Requirements":

- a. A table showing recommended lubricants for specific temperature ranges and applications;
- b. Charts with a schematic diagram of the equipment showing lubrication points, recommended types and grades of lubricants, and capacities; and
- c. A lubrication schedule showing service interval frequency.

1.4.2.2 Preventive Maintenance Plan and Schedule

Include manufacturer's schedule for routine preventive maintenance, inspections, tests and adjustments required to ensure proper and economical operation and to minimize corrective maintenance and repair. Provide manufacturer's projection of preventive maintenance man-hours on a daily, weekly, monthly, and annual basis including craft requirements by type of craft.

1.4.3 Corrective Maintenance

Include manufacturer's recommendations on procedures and instructions for correcting problems and making repairs.

1.4.3.1 Troubleshooting Guides and Diagnostic Techniques

Include step-by-step procedures to promptly isolate the cause of typical malfunctions. Describe clearly why the checkout is performed and what conditions are to be sought. Identify tests or inspections and test equipment required to determine whether parts and equipment may be reused or require replacement.

1.4.3.2 Wiring Diagrams and Control Diagrams

Wiring diagrams and control diagrams shall be point-to-point drawings of wiring and control circuits including factory-field interfaces. Provide a complete and accurate depiction of the actual job specific wiring and control work. On diagrams number electrical and electronic wiring and pneumatic control tubing and the terminals for each type, identically to actual installation numbering.

1.4.3.3 Maintenance and Repair Procedures

Include instructions and list tools required to restore product or equipment to proper condition or operating standards.

1.4.3.4 Removal and Replacement Instructions

Include step-by-step procedures and list required tools and supplies for removal, replacement, disassembly, and assembly of components, assemblies, subassemblies, accessories, and attachments. Provide tolerances, dimensions, settings and adjustments required. Instructions shall include a combination of text and illustrations.

1.4.3.5 Spare Parts and Supply Lists

Include lists of spare parts and supplies required for maintenance and repair to ensure continued service or operation without unreasonable delays. Special consideration is required for facilities at remote locations. List spare parts and supplies that have a long lead time to obtain.

1.4.3.6 Corrective Maintenance Man-Hours

Include manufacturer's projection of corrective maintenance man-hours including craft requirements by type of craft. Corrective maintenance that requires participation of the equipment manufacturer shall be identified and tabulated separately.

1.4.4 Appendices

Provide information required below and information not specified in the preceding paragraphs but pertinent to the maintenance or operation of the product or equipment. Include the following:

1.4.4.1 Parts Identification

Provide identification and coverage for all parts of each component, assembly, subassembly, and accessory of the end items subject to replacement. Include special hardware requirements, such as requirement to use high-strength bolts and nuts. Identify parts by make, model, serial number, and source of supply to allow reordering without further identification. Provide clear and legible illustrations, drawings, and exploded views to enable easy identification of the items. When illustrations omit the part numbers and description, both the illustrations and separate listing shall show the index, reference, or key number which will cross-reference the illustrated part to the listed part. Parts shown in the listings shall be grouped by components, assemblies, and subassemblies.

- a. Manufacturer's standard commercial practice: The parts data may cover more than one model or series of equipment, components, assemblies, subassemblies, attachments, or accessories, such as a master parts catalog, in accordance with the manufacturer's standard commercial practice.
- b. Other than manufacturer's standard commercial practice: End item manufacturer may add a cross-reference to implement components' assemblies and parts requirements when implementation in manual form varies significantly from the style, format, and method of manufacturer's standard commercial practice. Use the format in the following example:

| End Item Manufacturer's <u>Alphanumeric Sequence</u> | Actual Manufacturer's Name <u>and FSCM</u> | Actual Manufacturer <u>Part No.</u> |
|--|--|--|
| 100001 | John Doe & Co. 00000 | 2000002 |

List FSCM in accordance with \&\-DLA H4/H8-\&\.

1.4.4.2 Warranty Information

List and explain the various warranties and include the servicing and technical precautions prescribed by the manufacturers or contract documents to keep warranties in force.

1.4.4.3 Personnel Training Requirements

Provide information available from the manufacturers to use in training designated personnel to operate and maintain the equipment and systems properly.

1.4.4.4 Testing Equipment and Special Tool Information

Include information on test equipment required to perform specified tests and on special tools needed for the operation, maintenance, and repair of components.

1.4.4.5 Contractor Information

Provide a list that includes the name, address, and telephone number of the General Contractor and each subcontractor installing the product or equipment. Include local representatives and service organizations most convenient to the project site. Provide the name, address, and telephone number of the product or equipment manufacturers.

1.5 SCHEDULE OF OPERATION AND MAINTENANCE DATA PACKAGES

NOTE: See Note A located at rear of text.

Furnish the O&M data packages specified in individual technical sections. The required information for each O&M data package is as follows:

1.5.1 Data Package 1

- a. Safety precautions
- b. Maintenance and repair procedures
- c. Warranty information
- d. Contractor information

1.5.2 Data Package 2

- a. Safety precautions
- b. Normal operations
- c. Environmental conditions
- d. Lubrication data
- e. Preventive maintenance plan and schedule
- f. Maintenance and repair procedures
- g. Removal and replacement instructions

- h. Spare parts and supply list
- i. Parts identification
- j. Warranty information
- k. Contractor information

1.5.3 Data Package 3

- a. Safety precautions
- b. Normal operations
- c. Emergency operations
- d. Environmental conditions
- e. Lubrication data
- f. Preventive maintenance plan and schedule
- g. Troubleshooting guides and diagnostic techniques
- h. Wiring diagrams and control diagrams
- i. Maintenance and repair procedures
- j. Removal and replacement instructions
- k. Spare parts and supply list
- l. Parts identification
- m. Warranty information
- n. Testing equipment and special tool information
- o. Contractor information

1.5.4 Data Package 4

- a. Safety precautions
- b. Operator prestart
- c. Startup, shutdown, and postshutdown procedures
- d. Normal operations
- e. Emergency operations
- f. Operator service requirements
- g. Environmental conditions

- h. Lubrication data
- i. Preventive maintenance plan and schedule
- j. Troubleshooting guides and diagnostic techniques
- k. Wiring diagrams and control diagrams
- l. Maintenance and repair procedures
- m. Removal and replacement instructions
- n. Spare parts and supply list
- o. Corrective maintenance man-hours
- p. Parts identification
- q. Warranty information
- r. Personnel training requirements
- s. Testing equipment and special tool information
- t. Contractor information

1.5.5 Data Package 5

- a. Safety precautions
- b. Environmental conditions
- c. Preventive maintenance plan and schedule
- d. Troubleshooting guides and diagnostic techniques
- e. Wiring and control diagrams
- f. Maintenance and repair procedures
- g. Spare parts and supply list
- h. Warranty information

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

-- End of Section --

CRITERIA NOTES

NOTE A: The type of O&M data needed for any product, system, or piece of equipment depends upon the complexity of that item. Normally the "data package number" will appear in the technical guide specification. If not, the specifier should include the appropriate data package number in the respective technical section, guided by the schedule in this paragraph in selecting the data package number. Data Package 1 would be used for a simple item requiring only simple maintenance and replacement; for example, an acoustical tile system. Data Package 2 would be used for an item that is less simple, having a motor and a simple sequence of operation; for example, a refrigerated drinking fountain. Data Package 3 would be used for a complex piece of equipment, having a complex troubleshooting sequence, but one which does not require an operator on watch; for example, HVAC temperature controls. Data Package 4 would be used for an extremely complex piece of equipment, having an extensive sequence of operation, a complex troubleshooting sequence and one requiring constant operator attention, at least, for start-up and shut-down. Examples of this case would be small boilers and small diesel generator sets.

NOTE B: Suggestions for improvement of this specification will be welcomed using the "Agency Response Form" located in SPECSINTACT under "System Directory" or DD Form 1426. Suggestions should be forwarded to:

Commanding Officer
Naval Construction Battalion Center
Civil Engineer Support Office
Code DSO3
Port Hueneme, CA 93043-5000

-- End --

OUTLINE SPECIFICATIONS

DIVISION 02 -- SITE WORK

- 02050 06/92 DEMOLITION AND REMOVAL
demolition and/or removal work as a part of new construction or renovation work
- 02080 06/92 REMOVAL AND DISPOSAL OF ASBESTOS MATERIALS
safety procedures and requirements for the demolition, removal and disposal of friable material containing asbestos
- 02102 06/92 CLEARING AND GRUBBING
clearing and grubbing
- 02220 06/92 GENERAL EXCAVATION, FILLING, AND BACKFILLING
earthwork requirements for buildings, roads, and utilities for normal, routine construction
- 02225 06/92 EXCAVATION, BACKFILLING, AND COMPACTING FOR UTILITIES
earthwork related to furnishing and installing large extents of buried utilities, pipes, conduits, or other related appurtenances, more specifically, requirements for trench excavation, refilling, bedding, and backfill construction
- N-02511 06/92 ASPHALT CONCRETE PAVING AND INCIDENTAL CONSTRUCTION
asphaltic concrete paving and incidental construction
- 02611 06/92 EXTERIOR WATER DISTRIBUTION SYSTEM (MINOR CONSTRUCTION)
exterior water distribution systems for potable water of relatively minor extent where construction is of a conventional nature
- 02671 GROUND WATER EXTRACTION WELLS
drilling wells for extraction of contaminated ground water including installation of well screen, riser, sand pack and protective casing
- 02720 06/92 STORM DRAINAGE SYSTEM
piping and appurtenant structures for a storm drainage system
- 02730 06/92 EXTERIOR SANITARY SEWER SYSTEM
piping and appurtenant structures for an exterior sanitary sewer system
- 02831 06/92 FENCE, CHAIN LINK
chain-link fencing and is intended to be used in specifying chain-link fence for general-purpose and special-purpose use
- 02930 09/91 TURF
turf
- 02950 06/92 TREES, PLANTS, AND GROUND COVERS
planting

OUTLINE SPECIFICATIONS
(Continued)

DIVISION 03 -- CONCRETE

- 03300 06/92 CAST-IN-PLACE CONCRETE
cast-in-place concrete
- 03410 06/92 PRECAST CONCRETE (NON-PRESTRESSED)
for manholes and other structures

DIVISION 04 -- MASONRY

NO WORK IN THIS DIVISION

DIVISION 05 -- METALS

- 05500 06/92 METAL FABRICATIONS
miscellaneous metalwork; units of work normally included in this section should be metal items which require specific fabrication to meet the desired project requirements

DIVISION 06 -- WOODS AND PLASTICS

- 06101 02/91 CARPENTRY
minor amounts of rough carpentry, finish carpentry, and millwork

DIVISION 07 -- THERMAL & MOISTURE PROTECTION

- 07110 02/91 MEMBRANE WATERPROOFING
membrane waterproofing
- 07230 08/91 PERIMETER AND UNDER-SLAB INSULATION
different types of perimeter and under-slab insulation materials
- 07600 03/92 FLASHING AND SHEET METAL
flashing and sheet metal work including gutters and downspouts, scuppers, splash pans, and sheet metal roofing
- 07920 02/91 SEALANTS
sealants for normal building construction

OUTLINE SPECIFICATIONS
(Continued)

DIVISION 08 -- DOORS & WINDOWS

NO WORK IN THIS DIVISION

DIVISION 09 -- FINISHES

- 09100 02/91 METAL SUPPORT SYSTEMS
nonload-bearing cold-formed metal framing, furring, and ceiling
suspension systems for the attachment of lath, plaster, stucco, and
wallboard
- 09212 09/92 PLASTERING AND STUCCOING
plastering and stuccoing
- 09250 06/92 GYPSUM BOARD
gypsum board, cementitious backer units, and accessories intended
for use in drywall construction

DIVISION 10 -- SPECIALTIES

- 10440 06/92 SIGNS
exterior and interior signs
- N-10522 06/92 FIRE EXTINGUISHERS (AND CABINETS)
fire extinguishers and cabinets
- 10800 06/92 TOILET AND BATH ACCESSORIES
toilet and bath accessories

DIVISION 11 - EQUIPMENT

- 11307 GROUND WATER EXTRACTION PUMP SYSTEM
submersible pump and equipment installed in well
- 11308 CHEMICAL FEED PUMP SYSTEM
pump and equipment to feed treatment chemicals into the wastewater
stream
- 11309 TRANSFER PUMPS
pumps and equipment to transfer the wastewater stream between
treatment units

OUTLINE SPECIFICATIONS
(Continued)

- 11339 FLOCCULATOR/CLARIFIER
rectangular flocculator/clarifier treatment system for reduction of inorganic metals, contaminants and suspended solids concentrations in the wastewater stream, complete with tank, equipment and controls
- 11366 PRESSURE FILTER TREATMENT SYSTEM
circular pressure filter treatment system for removing solids in the wastewater stream, complete with tank, filter media, equipment and controls
- 11367 FILTER PRESS
rectangular filter press to remove water from sludge collected in the treatment operation, complete with tank, equipment and controls
- 11368 ULTRAVIOLET LIGHT OXIDATION TREATMENT SYSTEM
rectangular ultraviolet light oxidation treatment system for reduction of organic contaminants in the wastewater stream, complete with treatment unit, oxidant storage and feed system, equipment and controls
- 11369 GRANULAR ACTIVATED CARBON TREATMENT SYSTEM
circular granular activated carbon treatment system for reduction of organic contaminants in the wastewater stream, complete with tank, carbon adsorption media, equipment and controls

DIVISION 12 -- FURNISHINGS

NO WORK IN THIS DIVISION

DIVISION 13 -- SPECIAL CONSTRUCTION

- 13121 09/92 PREENGINEERED METAL BUILDINGS
preengineered metal buildings including doors, hardware, insulation, gutters, louvers and appurtenant building accessories
- 13321 02/91 FLOW MEASURING EQUIPMENT
flow measuring equipment for use in well water or treatment plant
- 13322 PROCESS INSTRUMENTATION AND CONTROLS
equipment used to sense flows, liquid levels, concentrations and associated properties in the treatment process and provide equipment control based on the information

OUTLINE SPECIFICATIONS
(Continued)

DIVISION 14 -- CONVEYING SYSTEMS

NO WORK IN THIS DIVISION

DIVISION 15 -- MECHANICAL

- 15011 06/92 MECHANICAL GENERAL REQUIREMENTS
the mechanical general requirements for all sections of Division 15,
"Mechanical"
- 15061 INSULATION, TANK HEATING AND HEAT TRACING
insulation and heating for exterior pipe and tanks
- 15275 STORAGE TANKS
tanks for storage of liquids and solids in the treatment process
- 15400 06/92 PLUMBING SYSTEMS
building plumbing systems including aboveground and buried DWV
piping, treatment system piping and water piping within and under
each building and within 5 feet outside of the building walls
- 15442 PLUMBING AND BUILDING FIXTURES
lavatory, water closet, safety shower/eye wash, wash sink, hose
stations and appurtenant equipment
- 15483 03/92 FUEL OIL HANDLING SYSTEM
new systems for diesel fuel and for No. 2, 4, 5, and 6 heating fuel
systems for buildings and central heating systems not requiring
field erected tanks
- 15511 03/92 LOW TEMPERATURE WATER (LTW) HEATING SYSTEM
complete low temperature water heating system including hot water
piping (supply and return) and terminal units used for heating
- 15621 03/92 WARM AIR HEATING SYSTEMS
warm air heating systems within a building
- 15850 09/92 AIR HANDLING EQUIPMENT
air handling equipment including central-station air handlers, fans,
(centrifugal fan, propeller fan, vaneaxial fan, power ventilator,
in-line tubular centrifugal fan, propeller ceiling fan, and air
curtain), gravity ventilators, fan-coil room units, room
air-induction units, variable-air-volume terminal units, and unit
ventilators

OUTLINE SPECIFICATIONS
(Continued)

- 15871 09/92 INDUSTRIAL VENTILATION AND EXHAUST SYSTEMS (DUCTS AND FANS)
blower and exhaust systems for removal of flammable vapors including
paint spraying residue, corrosive fumes, dust, and stock conveying
- 15895 06/92 DUCTWORK AND DUCTWORK ACCESSORIES
ductwork and ductwork accessories including diffusers, registers,
grilles, louvers, dampers, and louvered penthouses
- 15971 03/92 SPACE TEMPERATURE CONTROL SYSTEMS
space temperature control systems of the electric, analog
electronic, and pneumatic type for heating, ventilating, and cooling
system
- 15996 09/92 TESTING/ADJUSTING/BALANCING: HEATING/VENTILATING/COOLING
SYSTEMS
testing, adjusting, and balancing (TAB) of heating, ventilating, and
cooling (HVAC) air and water distribution systems

DIVISION 16 -- ELECTRICAL

- 16011 05/91 ELECTRICAL GENERAL REQUIREMENTS
electrical general requirements, complete
- 16370 06/92 OVERHEAD ELECTRICAL WORK
overhead electrical work
- 16375 06/92 UNDERGROUND ELECTRICAL WORK
underground electrical work
- 16402 09/92 INTERIOR WIRING SYSTEMS
procurement, installation, and testing of electrical wiring systems
for construction projects
- 16462 09/92 PAD-MOUNTED TRANSFORMERS
pad-mounted transformers of the dead-front and live-front types for
exterior applications
- 16510 05/91 INTERIOR LIGHTING
incandescent, fluorescent, and high-intensity discharge lighting
fixtures for interior installations
- 16530 02/91 EXTERIOR LIGHTING
lighting system requirements for exterior installations

OUTLINE SPECIFICATIONS
(Continued)

- N-16722 12/91 FIRE ALARM AND FIRE DETECTING SYSTEM [LOCAL (AND AUXILIARY)]
manual and automatic, noncoded, interior, Class "B" or Class "A"
fire and evacuation alarm systems
- 16726 02/91 BASIC INTRUSION DETECTION SYSTEMS (IDS)
basic intrusion detection systems (IDS)
- 16740 06/92 TELEPHONE DISTRIBUTION SYSTEM, INSIDE PLANT
telephone distribution for interior systems
- 16741 06/92 TELEPHONE DISTRIBUTION SYSTEMS, OUTSIDE PLANT
exterior telephone distribution system consisting of main
distribution frame, outside cable, and associated hardware