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MILITARY HANDBOOK

POLICY AND PROCEDURES FOR ENGINEERING
AND DESIGN CRITERIA MANUAL PREPARATION



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ABSTRACT

Policy and procedures for the preparation of engineering and design criteria manuals are presented for the use of preparing activities, engineer or architect-in-charge (EIC or AIC), and architectural and engineering (A/E) firms. This military handbook includes the Naval Facilities Engineering Command's (NAVFACENGCOM's) criteria manual policy decisions, statements of responsibility of preparing activities and preparers, a procedure to carry out criteria manual coordination review, and general guidance on format and style applicable to criteria manuals, specifically military handbooks. This handbook also addresses the preparation of facility plates.

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FOREWORD

This handbook is one of a series developed for instruction on the preparation of Navy facilities engineering and design criteria documents. This handbook uses, to the maximum extent feasible, national and institute standards in accordance with NAVFACENGCOM policy. Do not deviate from this handbook for NAVFACENGCOM criteria manual preparation without prior approval of the NAVFACENGCOM Criteria Office, Code 15C.

Recommendations for improvement are encouraged from within the Navy, other Government agencies, and the private sector and should be furnished on the DD Form 1426 provided inside the back cover to Commander, Naval Facilities Engineering Command, Code 15C, 1510 Gilbert Street, Norfolk, VA 23511-2699; telephone commercial (804) 322-4200, facsimile machine (804) 322-4416.

THIS HANDBOOK SHALL NOT BE USED AS A REFERENCE DOCUMENT FOR PROCUREMENT OF FACILITIES CONSTRUCTION. IT IS TO BE USED IN THE PURCHASE OF FACILITIES ENGINEERING CRITERIA STUDIES AND DESIGN (FINAL PLANS, SPECIFICATIONS, AND COST ESTIMATES). DO NOT REFERENCE IT IN MILITARY OR FEDERAL SPECIFICATIONS OR OTHER PROCUREMENT DOCUMENTS.

CRITERIA POLICY AND PROCEDURES MANUALS

<u>Criteria Manual</u>	<u>Title</u>	<u>PA</u>
MIL-HDBK-1006/1	Policy and Procedures for Project Drawings and Specifications Preparation	NAVFACENGCOM 15C
MIL-HDBK-1006/2	Policy and Procedures for Guide Specification Preparation	NAVFACENGCOM 15G
MIL-HDBK-1006/3	Policy and Procedures for Engineering Design Criteria Manual Preparation	NAVFACENGCOM 15C
MIL-HDBK-1006/4	Policy and Procedures for Definitive and Standard Designs and Standard Specification Preparation	NAVFACENGCOM 15C

POLICY AND PROCEDURES FOR ENGINEERING AND DESIGN
CRITERIA MANUAL PREPARATION

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Section 1: INTRODUCTION

1.1 Scope. This military handbook, MIL-HDBK-1006/3C, provides policy and detailed procedures for development and revision of engineering and design criteria manuals, specifically military handbooks (MIL-HDBKs). This is supplementary guidance to be used in conjunction with MIL-STD-962, Standard Practice for Defense Standards, Handbooks, Acquisition Guides and Bulletins.

1.2 Purpose of Criteria. Criteria are developed to define facilities engineering and design technology, functional and operational requirements, quality, and health and safety for military and civilian personnel. Building codes establish minimum construction safety requirements; NAVFACENGCOM criteria combines owners interlocking functional requirements and reasonable and consistent life-cycle costs. There are over 14,000 local versions of the three model building codes in the United States. There often are 5 to 30 different authors for a particular subject that applies to the Navy. Consideration is given to adopting applicable local criteria; this is weighed against the broader scope need to establish criteria which will be effective across the entire Navy to ensure quality and consistency.

The Navy's Engineering and Design Criteria Manual Program includes discipline-oriented criteria manuals on engineering and design technologies, and specific facilities engineering and design criteria manuals for functional requirements.

Some of these manuals are presently carrying the designation of NAVFACENGCOM design manual (DM). As new manuals are created or current design manuals are revised they will be formatted into military handbooks (MIL-HDBKs).

This handbook has been developed to ensure consistency and clarity of criteria manuals which strive to set practical standards for the design and construction of naval shore facilities with a maximum overall economy.

1.3 Cancellation. This handbook, MIL-HDBK-1006/3C, dated 31 August 1995, cancels and supersedes MIL-HDBK-1006/3B, dated 15 October 1990.

1.4 Criteria Manuals in a Series. A list of the criteria manuals in a particular series is presented in the front of each handbook.

Section 2: POLICY

2.1 Requirements. The creation or revision of an engineering and design criteria manual is based on functional requirements or facility technology changes as determined by the major claimant, activities such as Engineering Field Divisions (EFDs) or Engineering Field Activities (EFAs), Public Works Centers (PWCs), Public Works Departments (PWDs), Public Works Offices (PWOs), Navy functional managers, weapons systems managers (e.g., Naval Sea Systems Command (NAVSEA), etc.). Research existing Department of Defense (DOD) and Federal criteria to avoid duplication and ensure criteria sharing. Use the Construction Criteria Base (CCB), DOD Index of Specifications and Standards (DODISS), and other master data sources to ensure comprehensive review of existing data.

2.2 Criteria Sharing. NAVFACENGCOM's policy is to promote criteria sharing; work with the Army Corps of Engineers and the Air Force for technical advice to determine which criteria manuals are candidates for sharing. Obtain approval from the appropriate NAVFACENGCOM Code 15C Criteria Manager prior to any formal agreement on criteria sharing.

2.3 Criteria Type. NAVFACENGCOM's policy is to also publish criteria manuals in the form of military handbooks. New or revised design manuals will be published as military handbooks.

2.4 Criteria Update Priority System. NAVFACENGCOM Code 15C, in conjunction with Code 151, will establish a priority listing of criteria requirements. This listing will be the basis of development of the PA's annual criteria workload plans. Development of new criteria and revision of existing criteria on this listing are given priority in resource dissemination. The engineering and design criteria update priority system is as follows:

First - Military Readiness	Third - Technology Update
Second - Life, Safety, and Health	Fourth - Age of Document

Update documents under this priority system; use age only if the preceding three priorities do not apply.

2.5 Criteria Validity. NAVFACENGCOM's policy is to update criteria continuously as functions or technologies change and as feedback and lessons learned dictate. Each PA shall ensure that significant technical changes are made to their assigned documents and that these changes are published as quickly as possible after the required changes are identified. We are working toward a "living" document that is always current and available through the Construction Criteria Base (CCB). Significant technical changes will be issued as change notices; refer to pars. 6.10 and 7.6.2 for additional information.

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2.6 Quality. NAVFACENGCOM's policy is to provide quality engineering and design that produces facilities which:

- a) Satisfy functional and operational requirements of the Navy with sound architectural and engineering practice;
- b) Satisfy these requirements at the lowest life-cycle cost;
- c) Are environment responsive and energy efficient;
- d) Are aesthetically pleasing, increase productivity, and provide safe, healthy, and comfortable environments.

2.7 Non-Navy Criteria. NAVFACENGCOM's policy is to use non-Government standards criteria developed by others (e.g., industry, standards-generating organizations, Army Corps of Engineers, Air Force, and other Federal agencies) when that criteria satisfies functional requirements of the Navy.

2.7.1 Excerpts From Non-Navy Criteria. Include short excerpts from non-Navy criteria in the text, with appropriate recognition to preparer, whenever possible. Avoid requiring the criteria manual user to obtain a non-Navy document to make use of a few paragraphs.

2.7.1.1 Permission to Use Excerpts. Obtain a written statement from the preparer of the non-Navy document giving permission for excerpts to be published in the criteria manual. Maintain this statement in the official work file of the criteria manual.

2.7.2 Reference to Non-Navy Criteria. If extensive use of non-Navy criteria is necessary and par. 2.7 does not apply, reference the non-Navy criteria as a mandatory source and provide specific citations to applicable portions. Include any mandatory exceptions, additions, or differences from the referenced document in the criteria manual. If the reference document contains design, system, or material options, provide guidance on the selection of appropriate options.

2.8 In-House Development. Develop or revise criteria manuals in-house to the maximum extent possible for effective long-term interpretation and consultation, and to maintain expertise in the subject area.

2.9 Level of Experience. Write criteria manuals for the experienced engineer and architect. When use requires special qualifications or Navy-unique procedures, include more detailed instruction for an engineer or architect inexperienced in the criteria manual's particular subject matter.

2.10 Fire Protection. NAVFACENGCOM's policy is that fire protection criteria will not appear in any individual criteria manual. Reference appropriate paragraphs of MIL-HDBK-1008B, Fire Protection for Facilities Engineering, Design, and Construction. NAVFACENGCOM Code 15C will send any

manual containing fire protection criteria to NAVFACENGCOM Code 150 for review and approval prior to publication.

2.11 Value Engineering. Consider the value engineering methodology when preparing a new handbook or when making a major revision to an existing handbook to ensure our Navy and Marine Corps facilities fully satisfy the functional and operational requirements of the owner-operator at the lowest life-cycle cost. A progress level submission will be selected on which the Value Engineering Team Study (VETS) will be conducted. The study can be conducted by the A/E firm through either its own registered Certified Value Specialist (CVS) and second team technical support or through a subcontracted CVS second team. The recommendations of the team study along with the A/E evaluation will be submitted for final acceptance or rejection on the part of the Government during the review cycle. The VETS for an in-house prepared document may utilize an in-house second team under the direction of an EFD or EFA CVS. Consult with the NAVFACENGCOM Code 15C engineer or architect in charge of the subject matter to determine the need for a VETS.

2.12 Streamlining. Apply streamlining concepts when developing or revising a criteria manual to ensure it is not wordy, states clear, concise definitions of requirements, eliminates exaggerated and obsolete information, and is written in performance language.

Section 3: DEFINITIONS

3.1 Military Handbooks. Military handbooks, developed as engineering and design criteria manuals, contain standard procedural, technical, engineering, design, and construction information and related data, and are available for use by DOD activities. Military handbooks strive to provide formal engineering and design guidance at all organizational levels of DOD. The objective of military handbooks is to develop standardized products and practices to satisfy military requirements and to prevent duplicating and overlapping of descriptive information among the various services. Military handbooks listed in Military Bulletin (MIL-BUL) 34, Engineering and Design Criteria for Navy Facilities, are mandatory guidance for Navy projects, except as limited specifically in each document.

3.2 Construction Criteria Base (CCB). CCB is a fully indexed, mass-produced package of criteria "libraries," on compact disc read-only-memory (CD-ROM) which is microcomputer readable. This user-friendly system has quick search and retrieval capability and rapid conversion from ASCII to any of the most popular word processing programs.

3.3 Department of Defense Index of Specifications and Standards (DODISS). The DODISS is a publication listing Federal and military specifications, standards, and related standardization documents and non-Government documents that have been adopted for use by the DOD. Military handbooks are listed in this document.

3.4 Facility Plates. Facility plates are included in criteria manuals and they provide functional layouts of the various portions of the facility. These plates may list utility and environmental requirements for each of the functional areas. Update and convert definitive drawings associated with a military handbook to facility plates.

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Section 4: WHERE TO BEGIN

4.1 Responsibilities of the Preparing Activity (PA). The PA is responsible for reviewing the criteria manual for functional requirements and for the adequacy of the facilities technology, working directly with the major claimant as to disposition of the manual. The PA is responsible for continuously correcting deficiencies as they are identified and providing recommended manual changes to NAVFACENGCOM Code 15C. Corrections will be continuously added to the CCB which is published quarterly.

4.1.1 Cancellation. If it is determined that the criteria manual is no longer needed, refer to par. 7.8 for cancellation or "inactive for new design" note procedures.

4.1.2 Validation. If it is determined that the criteria manual is current with state-of-the-art as presently published, refer to par. 7.9 for validation procedures.

4.1.3 Revision. As soon as the need for revising a criteria document can be projected, submit a proposal to NAVFACENGCOM Code 15C so that the document preparation can be included for funding in the next Criteria Program Plan. Include a brief Scope of Work, background, benefits, cost, preparer (in-house or Contractor) schedule, and priority.

The PA is responsible for:

- a) Certifying technical need and economic justification for the criteria;
- b) Certifying that non-Navy criteria, which could be economically adapted to satisfy the Navy's functional requirements, does not exist;
- c) Writing the Scope of Work and detailed milestone plan, whether for in-house or A/E, in conjunction with NAVFACENGCOM Code 15C;
- d) Ensuring preparer adherence to guidelines and schedules;
- e) Updating the ECMS database;
- f) Monitoring the coordination review process;
- g) Obtaining a review of the criteria manual by the EFD or EFA Safety Manager/Engineer; and obtaining a signature on the criteria manual sign-off sheet (see Figure 1) which certifies that safety and health criteria contained in the manual are both adequate and correct;
- h) Rejecting inferior submissions;

- 1) Ensuring that the handbook fulfills requirements of the Scope of Work; and
- j) Ensuring the final submission package contains required information.

4.2 Scope of Work General Requirements. After a criteria proposal is approved and funded, prepare a more detailed Scope of Work. The Scope of Work for the development of a new or revision of an existing criteria manual shall be clear and concise. Clearly define the description of work, submittals, sequence of work, and general provisions required of the preparer, as well as the Government's role in the project. If the criteria manual is to be a two-part document, define contents of Parts A and B in the Scope of Work. Appendix A is a sample Scope of Work.

4.2.1 Two-Part Format. In conjunction with the appropriate NAVFACENGCOM Code 15C Architect or Engineer, determine if the criteria manual will follow the usual format or if it would be more useful divided into Parts A and B.

4.2.1.1 Part A. Include design policy and Navy-unique technical requirements. Limit the criteria in Part A to that required by designers experienced in the particular discipline.

4.2.1.2 Part B. Include engineering data required to explain and illustrate the basic concepts, equipment, systems, and procedures. Write Part B as a stand-alone reference to assist the less experienced designer or reviewer and those lacking the basic references to perform simple analyses and calculations. Include typical examples where required for clarification.

4.2.2 UNIFORMAT II. UNIFORMAT II is a method of classifying building elements and related site work to ensure consistent project development from one project to the next. It is used in all stages of building construction from concept and planning, through design drawings and specifications preparation, cost estimating, construction, and maintenance. UNIFORMAT II has been adopted by NAVFAC and NAVFAC's cost estimating system is being converted to UNIFORMAT II. Arrange new facility related military handbooks in UNIFORMAT II. For detailed description of UNIFORMAT II refer to ASTM E 155, Standard Classification for Building Elements and Related Sitework - UNIFORMAT II.

4.3 What is Expected of the Preparer. The preparer may be a private contractor or an A/E firm, when the work cannot be accomplished in-house. The preparer is responsible for the following.

4.3.1 Review of Existing Publications. Review publications listed in the Scope of Work and consider them either for incorporation, or for reference in the handbook under development or revision.

4.3.2 Life-Cycle Costing. Emphasize a life-cycle cost analysis as part of the engineering analysis.

4.3.3 Certification of Preparer. Certify that required Scope of Work items have been included in the completed handbook, and essential comments are included or resolved to the satisfaction of the commenting activity. See Figure 1.

4.4 Phasing of Work. The Scope of Work shall state what is required of the preparer at each of the following phases of criteria manual development or revision.

4.4.1 Preliminary Submission. If a handbook is being prepared by an A/E firm, request a preliminary submission to confirm that the preparer is on target. This allows for early resolution of any misunderstandings. The preliminary submission shall be a detailed outline of the entire handbook which addresses the concerns listed in the Scope of Work. If the handbook is new, include a brief scope statement for each major paragraph heading. If it is a revision, include a marked-up copy of the existing criteria manual to show anticipated areas of change.

4.4.2 Coordination Phase. For the purpose of coordination, the handbook should be at least 90 percent complete and contain all graphics. Refer to Section 5 for additional information.

4.4.3 Additional Pre-final Submissions. If the handbook is being prepared by an A/E firm, request any additional submissions between the coordination phase and final submission deemed necessary.

4.4.4 Final Submission. The handbook is submitted by the PA to NAVFACENGCOM Code 15C. Prior to submission, obtain a letter of approval from the major claimant. Maintain this letter in the official work file of the handbook. See Figure 2 for sample approval letter from major claimant. The final submission shall include the following:

a) One camera-ready copy (originals) of the complete handbook in final form and two complete copies of the final document;

b) 3-1/2-inch DSHD diskettes preferably, or 5-1/4-inch DSDD or DSHD diskettes of the entire criteria manual including graphics (refer to par. 6.4);

c) Fully executed Criteria Manual Preparation Checklist Sign-off Sheet (Figure 1).

4.5 Criteria Manual Development Schedule. A pre-set milestone schedule (A through G) is provided in the ECMS for completion of the criteria manual. This schedule represents a maximum of 360 calendar days (approximately 12 months) for document preparation and submittal to NAVFACENGCOM Code 15C. The schedule may be modified by the PA, if necessary, but overall completion time should not be extended. This schedule is interpreted below.

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PREPARING ACTIVITY (PA):	Date:
MANUAL NUMBER:	TITLE:
1. AS EIC/AIC, I CERTIFY THAT the manual has been reviewed and:	
1.1 It fulfills Scope of Work, is technically correct, and in compliance with the state-of-the-art.	
1.2 If applicable, have obtained approval letter from major claimant.	
1.3 There are no unresolved essential comments;	
1.4 It contains no proprietary design/systems nor classified material;	
1.5 References are correct, current, and complete;	
1.6 Changes to related criteria have been sent to appropriate PA;	
1.7 It is complete and can be released to the public.	
Signature:	Date:
2. AS PA SAFETY MANAGER/ENGINEER, I CERTIFY THAT safety and health criteria are both adequate and correct.	
Signature:	Date:
3. AS PA BRANCH MANAGER, SUPERVISOR OF EIC/AIC, I CERTIFY:	
3.1 That responsibilities required of EIC/AIC are complete;	
3.2 To the effectiveness and useability of the manual for NAVFAC engineering and design.	
Signature:	Date:
4. AS PA CRITERIA EDITOR, I CERTIFY THAT manual:	
4.1 Meets requirements of MIL-HDBK-1006/3B;	
4.2 It is administratively complete and correct;	
4.3 Camera ready copy and diskette(s) are identical.	
Signature:	Date:
5. AS PA TECHNICAL STANDARDS SPECIALIST, I CERTIFY:	
5.1 Manual adheres to NAVFACENGCOM policy.	
5.2 That DOD similar document exists/does not exist and a coordination plan is enclosed.	
Signature:	Date:
6. AS PA DESIGN DIRECTOR, I CERTIFY overall technical/functional adequacy of the manual.	
Signature:	Date:
7. AS NAVFACENGCOM 15C ARCHITECT/ENGINEER-IN-CHARGE, this manual is technically and functionally adequate.	
Signature:	Date:
8. AS NAVFACENGCOM CRITERIA OFFICE DIRECTOR, final overall programmatic approval is given.	
Signature:	Date:

Figure 1
Criteria Manual Preparation Checklist Sign-off Sheet

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From: (Major Claimant)
To: (Commander, Commanding Officer), (Preparing Activity)
Subj: APPROVAL OF CRITERIA MANUAL FOR PUBLICATION
Ref: (a) MIL-HDBK-1006/3, Policy and Procedures for
Engineering and Design Criteria Manual Preparation

1. In accordance with reference (a), (criteria manual number and title) is approved for publication.
2. (criteria manual number) accurately defines the functional requirement for (e.g., hangar space, warehouse service, etc.) and the proposed facility solution. This Command has implemented the policy defined in (criteria manual number) and the manual will be the basis for facilities planning, engineering, and design.

Signed,

Figure 2
Sample of Approval Letter From Major Claimant

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a) ECMS "A-START": This is the date that the contractor is provided a notice to proceed, or in-house criteria development or revision begins.

b) ECMS "B-FIRST DRAFT SUBMITTAL": This is the preliminary submission as described in par. 4.4.1. It is 3 months (90 days) after the "A-START" stage; however, the PA may require any number of necessary unofficial submissions prior to the "B-FIRST DRAFT SUBMITTAL" stage.

c) ECMS "C-COORDINATION": Approximately 2 months (60 days) after the "B-FIRST DRAFT SUBMITTAL," the 90 percent complete document is disseminated for coordination in accordance with Section 5.

d) ECMS "D-RESOLUTION": Comments shall be resolved within 3 months (90 days) after the "C-COORDINATION" stage. This is the date the criteria manual is returned to the preparer for development of the final document.

e) ECMS "E-FINAL": Submit the final criteria manual to the PA Criteria Manager approximately 2 months (60 days) after the "D-RESOLUTION" stage.

f) ECMS "F-SUBMITTAL HQ": Submit complete criteria manual package to NAVFACENGCOM Code 15C approximately 2 months (60 days) after the "E-FINAL" stage. Refer to par. 4.4.4.

g) ECMS "G-COMPLETION APPROVAL": Within 1 month (30 days) after the "F-SUBMITTAL HQ" stage, NAVFACENGCOM Code 15C approves the criteria manual for publication and release to the public and private sectors.

Section 5: COORDINATION

5.1 Coordination Policy. NAVFACENGCOM's policy is to fully coordinate new handbooks and those being revised when highly controversial changes are made or differences of opinion are expected and input is desired, prior to release for publication. Decision on coordination of changes is left to the PA. Coordinate criteria manuals for review with NAVFACENGCOM Code 15C, to ensure conformance with this handbook and any publication policy guidance subsequently distributed.

5.1.1 Coordination of Changes. Do not coordinate routine maintenance changes to an existing criteria manual unless the preparing activity determines that:

- a) The change has potential for controversy;
- b) Additional insight and expertise can be gained by review by other PA's; or
- c) Based on previous user comments received, the PA deems coordination is necessary.

5.1.2 Comments on Uncoordinated Manuals. Use DD Form 1426, Standardization Document Improvement Proposal (the last page of each criteria manual), to comment on uncoordinated changes. This form contains preprinted PA information such as title and document number of manual, and PA address and telephone number. Send completed DD Form 1426 to the PA and a copy to NAVFACENGCOM Code 15C.

5.1.3 Designation of Coordination Drafts. Coordinate new or revised criteria manuals at the 90 percent draft stage. Refer to par. 7.1.2 for designation requirements.

5.2 Purpose. The purpose of the coordination phase is to gain input from the widest possible spectrum of qualified experts. The product resulting from this action is a consensus document which is useful to the largest number of people in the engineering, design, and construction of facilities.

5.3 Full Coordination. Use full coordination only on new documents and on those with highly controversial changes where differences of opinion are expected and input is desired. In coordinating the handbook, the preparer will specify the time limit for responding. The maximum time is 60 days. See Figure 3 for sample coordination letter to Government organizations and Figure 4 for sample coordination letter to industry.

The following activities are standard distribution for the full coordination of each new handbook. The PA will determine which reviewers are appropriate to comment on handbook revisions on a case-by-case basis. In both new and revised handbooks, pars. 5.4 through 5.4.5 apply.

Commander, Atlantic Division
Naval Facilities Engineering Command, Code 04A4
1510 Gilbert Street
Norfolk, VA 23511-2699

Commander, Pacific Division
Naval Facilities Engineering Command, Code 406
Building 258 Makalapa
Pearl Harbor, HI 96860-7300

Commanding Officer
Engineering Field Activity West, Code 09F41
900 Commodore Drive
San Bruno, CA 94066-2402

Commanding Officer, Northern Division
Naval Facilities Engineering Command, Code 4013
10 Industrial Highway, Mail Stop 82
Philadelphia, PA 19113-2090

Commanding Officer
Engineering Field Activity Chesapeake, Code 406
Washington Navy Yard, Building 212
901 M Street, S.E.
Washington, DC 20374-5018

Commanding Officer, Southern Division
Naval Facilities Engineering Command, Code 076DPD
1255 Eagle Drive
North Charleston, SC 29419-9010

Commanding Officer, Southwest Division
Naval Facilities Engineering Command, Code 406
1220 Pacific Highway, Building 130
San Diego, CA 92132-5190

Commanding Officer
Naval Construction Battalion Center
NAVFACENGCOM Code 15G/CESO 158
1000 23rd Avenue
Port Hueneme, CA 93043-4301

Commander
Naval Facilities Engineering Command, Code 15C
1510 Gilbert Street
Norfolk, VA 23511-2699 (5 Copies)

Commanding Officer
Naval Facilities Engineering Service Center, Code 60APM
560 Center Drive
Port Hueneme, CA 93043-4328

Commanding Officer
Engineering Field Activity Northwest, Code 04B
19917 - 7th Avenue N.E.
Poulsbo, WA 98370-7570

Commanding Officer
Engineering Field Activity Midwest, Code 420
2703 Sheridan Road
Building 1A, Suite 120
Great Lakes, IL 60088-5600

Commanding Officer
Engineering Field Activity Mediterranean, Code N4
PSC 810, Box 51
FPO AE 09609-0051

Send copy of coordination letter only to:

Commanding Officer
Navy Public Works Center
Occupational Safety and Health Support Office, Code 09K
9742 Maryland Avenue
Norfolk, VA 23311-3095

In addition, coordinate the handbook with the American Council of Engineering Consultants, the national society for the discipline involved, such as American Society of Civil Engineers (ASCE), American Society of Mechanical Engineers (ASME), the Institute of Electrical and Electronics Engineers, Inc. (IEEE), and others at the discretion of the PA.

5.4 Comments

5.4.1 Submittal Date. Submit comments on or before the date stipulated in the forwarding letter.

5.4.2 Instructions to Reviewing Activities. Submit comments to the PA on NAVFAC Form 11012/9 (5-90), Engineering and Design Criteria Review. In making comments, consider the following:

a) Define specific problems and recommend solutions to the problem. Do not make general or vague criticisms.

b) Handle graphics, if any, in the same manner as text. Identify problem by quadrant rather than paragraph number.

c) Classify each comment as either "essential" or "suggested."

d) Editorial comments are not required; however, if you consider a comment serious enough to be classified as essential, offer it.

5.4.3 Suggested Comment. A suggested comment covers changes considered desirable but not absolutely necessary. Suggested comments may be accepted or rejected by the PA without justification or explanation; however, advise the commenters of the disposition of their comments as a matter of courtesy.

5.4.4 Essential Comment. An essential comment covers requirements or provisions which must be adopted or reconciled if the document is to be useable to the commenting activity. Resolve essential comments to the satisfaction of the PA and the reviewing activity.

5.4.5 Resolution. Resolution of comments includes the review of comments offered on a particular point and developing a rational, professional decision on a course of action or a solution consistent with the comment, technical requirements, and policy.

NAVFACENGCOM Code 15C, with advice from appropriate technical experts and consultants, will make a final decision on the disposition of unresolved essential comments. This action should occur rarely, if ever. PA's have the primary responsibility of settling disparities. If necessary for Code 15C to become involved, send a request for such resolution to Code 15C immediately after the coordination review phase.

NAVFACENGCOM Code 15C will accomplish resolution within 30 days of receipt of the request and will immediately inform the PA of such resolution.

From: (Commander, Commanding Officer) (Preparing Activity)
To: Distribution

Subj: COORDINATION OF NAVFAC MILITARY HANDBOOK (CRITERIA MANUAL
NUMBER, "TITLE") (DRAFT) (DATE)

Encl: (1) Copy of Subject Document
(2) NAVFAC Form 11012/9 (5-90), "Engineering and Design
Criteria Review"

1. Enclosure (1) is forwarded for your review and comment or concurrence. Please provide comments using enclosure (2). Local reproduction of additional copies of enclosure (2) is authorized if required.

2. An essential comment covers requirements or provisions which need to be adopted or reconciled if the document is to be useable by the commenting activity. Please provide specific comments and accompany them with reasons to assist in their understanding and resolution. Editorial and format comments will be considered as suggested comments.

3. To facilitate completion of the document on schedule, response should be received not later than 60 calendar days from the date of this letter. Please mail your response to:

(Commander, Commanding Officer)
(Preparing Activity)

4. Your assistance is appreciated. Questions concerning this document should be addressed to (PA Technical Standards Specialist, DSN and Commercial telephone numbers).

Signed,

Distribution:
(Government Organizations)

Figure 3
Sample of Coordination Letter to Government Organizations

Company Name
Address
City/State/Zip Code

Dear (Company Representative):

This is to invite you to comment on the Navy Facilities Engineering Command (NAVFAC) Military Handbook, (Manual Number), ("Title.")

Submit your comments on the enclosed NAVFAC Form 11012/9, which may be reproduced as required. Also, please make your comments specific and accompany them with reasons, to assist in their understanding and resolution.

To facilitate completion of the document on schedule, please respond within 60 calendar days from the date of this letter. We will retain comments received after the scheduled date, and consider them for inclusion in the subject military handbook when amended or revised. Mail your response to:

(COMMANDING OFFICER, COMMANDER)
(PREPARING ACTIVITY)

Sincerely,

Signed

Encl: (1) (Manual Number, "Title" (Draft) (Date)
(2) NAVFAC Form 11012/9 (5-90), "Engineering and Design Criteria Review"

Figure 4
Sample of Coordination Letter to Industry

Section 6: GENERAL REQUIREMENTS

6.1 Scope. Follow the general guidance in this section when preparing handbooks.

6.1.1 Pagination. Number pages between the cover and Section 1 (Abstract, Foreword, Contents, etc.) consecutively with lowercase Roman numerals. Begin with Section 1 and number pages consecutively in Arabic numerals, beginning with "1," to the end of the document. Do not insert blank pages. Refer to par. 7.5 for specific guidance.

6.1.2 Decimal System Paragraph Numbering. Number sections, paragraphs, and subparagraphs consecutively, using a period to separate the number representing each breakdown. Number all paragraphs as subparagraphs of the section in which they appear; e.g., par. 3.2 is a paragraph in Section 3, par. 6.2.2 is a subparagraph of Section 6, etc. Limit paragraph breakdown to four digits and include no more than two supplementary unnumbered paragraphs under any numbered paragraph.

Example: SECTION 3
Paragraph 3.1
Subparagraph 3.1.1
Subparagraph 3.1.2
Sub-subparagraph 3.1.2.1
Sub-subparagraph 3.1.2.2
Paragraph 3.2

6.1.2.1 Itemization. Identify itemization within a paragraph or subparagraph by lowercase letters to avoid confusion with paragraph numbers.

6.1.2.2 Cross-Reference. Keep cross-references to a minimum. Make any cross-reference to a specific paragraph, subparagraph, or sub-subparagraph number.

6.1.3 Use of the International System of Units (SI). In the text of handbooks containing dimensions, wherever possible, use SI units as the primary dimensional system, otherwise use customary U.S. dimensions followed by the SI equivalent to the same level of significance enclosed in parentheses. Do not separate the number and unit on separate lines in the text. In figures and tables, include SI units and customary U.S. units except where their inclusion makes the figures and tables confusing and unreadable. If inclusion of both units makes figures and tables confusing and unreadable, create a new figure or table using SI units only.

The International System of Units is the internationally-accepted "metric" system. Use the acronym "SI," meaning system international. Use "hard" SI sizes where industry standards exist, products are readily available, and it is economically feasible.

For details on the proper use of SI units, refer to NAVFAC Metrication Conversion Policy for Design, Planning, and Design Criteria, and NAVFAC Guide Specifications.

6.1.3.1 Linear Measurement. Use meters (m) and kilometers (km) for measurement of long distances and field dimensions. Use millimeter (mm) for measurement of length in building design, construction, and production and for elements of structures where the manufacturer would cite in millimeters; e.g., wallboard panels. Do not use centimeter (cm); avoid use of cm in building design and construction applications.

6.1.3.2 Units Less Than Unity. Show SI units of less than a whole as a decimal with a zero preceding the decimal point (e.g., 0.25 m).

6.1.3.3 Spacing in Use of SI. Do not use commas in presenting SI units. Numbers are broken by a space, three spaces to the right and left of the decimal point. In numbers of four digits on either side of the decimal point, the space is usually not necessary. Leave a space between the number and the SI unit. When citing SI units, do not separate the number and SI unit on two lines.

6.2 Editorial Guidance

6.2.1 Language and Tense. Write handbooks in active voice, present tense and in a language that is appropriate for the user with the experience level required by the subject matter. Do not include descriptions of terms considered common knowledge among engineering and design professionals.

6.2.2 Structuring of Thoughts. Understand the organization of subject matter of the handbook and convey that organization to the user by a clear structuring of thoughts. Use concise sentences and paragraphs.

6.2.3 Word Choice. Do not use vague or ambiguous terms such as "too short," "relatively simple," or "short distance." Use words which demonstrate exactly what is intended; a measurable term is preferred. Define "necessary" or "applicable" for the user instructed to do something "when necessary" or "if applicable." Do not use "and/or." Do not use the virgule (/) to substitute for the word "and" or "or." Definitive, precise language is imperative.

6.2.4 Abbreviations and Acronyms

6.2.4.1 Abbreviations. Abbreviations shall conform to the Government Printing Office (GPO) Style Manual for word abbreviations, terms of measure, and use of signs and symbols. Abbreviations shall be consistent throughout the publication. Spell out proper names the first time they are used in the text with the abbreviation in parentheses; use the abbreviation thereafter; e.g., 10 cubic feet per minute (cfm). Do not use symbols in the text; e.g., to indicate feet (') or inches ("), spell out or abbreviate consistently

throughout text; or percent (%) or degrees (o), spell out throughout the text. Symbols may be used in figures, tables, and facility plates.

Do not use superscript or subscript characters or Greek symbols in the text or on tables; spell out the words; e.g., 10 cubic meters, 5 square feet, ohms, micro, etc.

6.2.4.2 Acronyms. Acronyms may be used if the words are spelled out in the text the first time they are used, followed by the acronym in parentheses. Include acronyms which are used in the handbook but may be unfamiliar to the user in the glossary.

6.2.5 Presentation of Fractions. Some typewriters and word processors have a key for the fractions 1/2 and 1/4 as one typewritten character. Do not use these keys.

a) Present fractions in the text as shown below:

(1) 1/2 inch - three typewritten characters

(2) 1-1/2 inch - five typewritten characters

b) When a fraction is also a modifier, use the hyphen as shown below:

(1) 1/2-inch pipe

(2) 1-1/2-inch pipe

6.2.6 Footnotes

6.2.6.1 Footnotes to the Text. Do not footnote the text.

6.2.6.2 Footnotes to Figures and Tables. Place footnotes to a figure or table below the figure or table outside of the box rule. Footnotes may contain information that cannot be presented as data within a figure or table. Number footnotes separately for each figure or table. Where using numerals will lead to confusion (for example in connection with a chemical formula), use lowercase letters or other symbols. Do not use superscript characters in numbering footnotes; put the letter or number in parentheses.

6.2.6.3 Footnotes to Facility Plates. Do not footnote facility plates. Include legends (if required) and scales within the facility plate border. If the facility plate is not to scale, state this on the plate inside the border.

6.3 Appendices. Appendices are additional or supplementary information to be used in conjunction with the handbook. Keep the number of appendices minimal. Ensure that an appendix is within the scope of the handbook and not inconsistent with it. Prepare appendices in the same format as the handbook.

Begin the appendix on the next page following the end of text. Mark the upper center of each page with the document identifier and the word "APPENDIX" two lines below the identifier. Identify appendices alphabetically (e.g., APPENDIX A, B, etc.). Locate the title two lines below the word "APPENDIX" on the beginning page only. Thereafter only use "APPENDIX A (Continued)" two lines below the document identifier.

6.3.1 Use. An appendix may be an aid to understanding or an example of a process or procedure. Reference the appendix in the handbook indicating how it applies.

6.3.2 Figures and Tables in Appendices. Number figures and tables within appendices as Figure A-1, A-2, and Table A-1, A-2, etc. Refer to par. 6.5.6.4 for presentation of figures and tables.

6.4 Magnetic Media Requirement

6.4.1 Text for Magnetic Media Requirements. Provide text on 3-1/2-inch DSHD diskettes. Maximum page size is 64 lines per page, including document identifier and page number with margins as required in par. 6.5.1. Provide a single electronic text file for each handbook, not multiple files that require incorporation into one final document. Submit magnetic media files in WordPerfect (versions through 5.1) or Microsoft Word 6.0.

6.4.2 Graphics. Provide graphics (graphs, figures, facility plates, etc.) in a digital format whenever possible. Digital format shall be useable on Navy (or other Government customer) computer systems such as facilities CAD2, CADD microcomputers, and engineering workstations. If computer graphics are not used, submit camera-ready original artwork to NAVFACENGCOM Code 15C (refer to par. 6.5.1). Halftone drawings, photographs, pictures, and foldouts are not acceptable. Generate AUTOCAD and facility layout plate graphics following acceptable digital formats, media, and standards specified in the Tri-Service CADD/GIS Standards, Computer-Aided Design and Drafting Architect-Engineer Deliverables.

6.4.3 Scope of Work Statements. Include requirements stated in pars. 6.4 and 6.5.1 in the Scope of Work of all handbooks whether they are prepared in-house or by an A/E firm. Clearly indicate to the Contractor that an exact translation is required. Prior to submittal to NAVFACENGCOM Code 15C, ensure that the camera-ready copy and the magnetic media are equivalent by performing the following specific quality control checks:

- a) Scan diskettes for viruses;
- b) Margins check;
- c) Tabs check;
- d) Document identifier and page number check;

- e) Numbering of paragraphs check;
- f) Graphics check;
- g) Centering check;
- h) Printout from magnetic media is exactly equivalent to the camera-ready copy provided;
- i) Include on diskettes an explanation of features of their contents, such as pages containing graphics, word processing format, and graphics format. Include information which is not immediately apparent to an operator who may be correcting the diskettes and reprinting handbook pages.

6.5 Appearance. The following are detailed procedures for the appearance of a handbook.

6.5.1 Camera-Ready Copy. Prepare camera-ready copy on 8-1/2- by 11-inch (213- by 275-mm) white paper, 6-1/2- by 9-inch (163- by 225-mm) image area, one side only, single columns, with 1-inch (25 mm) margin on all sides. Foldout sheets are not acceptable. Type the final copy in Courier 12 pitch font with text left justified. Do not use automatic hyphenation and omit word processing codes such as headers, footers, automatic page numbering, and notes.

6.5.2 Cover. Refer to par. 7.2 for specific instructions.

6.5.3 Abstract. Center the word "ABSTRACT" three lines below the document identifier and begin the text two lines down flush with the left margin. Do not indent paragraphs. Number the abstract page "ii." Include an abstract in each handbook. Write an accurate description of the contents of the handbook. Reference category codes if applicable.

6.5.4 Foreword Page. Type the word "FOREWORD" three lines below the document identifier. Begin the text two lines down flush with the left margin. Do not indent paragraphs. In the Foreword, include information about the development and recommended usage of the handbook. Include the name, address of the PA, and code and telephone number of contact at the PA. Ensure the address is identical to the address on the DD Form 1426, which is the last page of the handbook. Refer to par. 7.3 and the Foreword in this handbook. Number the Foreword page "iii."

6.5.5 Contents. On the first page of the contents, center title of the handbook in all capital letters three lines down from the document identifier. Center the word "CONTENTS" two lines below the document identifier. Type "Page" two lines below the word "CONTENTS," 1-1/2 inches (38 mm) from the right side of the page. Two lines below that, begin listing the contents of the handbook. Show identification numbers and titles for sections, paragraphs, and subparagraphs to four decimal numbers. List sections

consecutively as Section 1, 2, 3, etc. List succeeding sections two lines below the last line of the previous section. Type section headings in all capital letters, and paragraph and subparagraph headings with the first letter of principal words capitalized. Connect listings to page numbers with leader dots. Refer to the Contents of this handbook.

6.5.5.1 Appendices. Center the word "APPENDIX" or "APPENDICES" as appropriate three lines below the last paragraph heading. List appendices as APPENDIX A, B, C, etc., with the first letter of principal words in the title capitalized. Connect listings to page numbers with leader dots.

6.5.5.2 Facility Plates. Center the words "FACILITY PLATES" three lines below the appendices listing (or the last paragraph listing if no appendices). List facility plates consecutively as Sheet No. 1, Sheet No. 2, etc., with the first letter of principal words in the title capitalized. Connect listings to page numbers with leader dots.

6.5.5.3 Figures. Center the word "FIGURES" three lines below the last listing. List figures consecutively as Figure 1, 2, 3, etc., with the first letter of principal words in the title capitalized. Connect listings to page numbers with leader dots.

6.5.5.4 Tables. Center the word "TABLES" three lines below the last listing. List tables consecutively as Table 1, 2, 3, etc., with the first letter of principal words in the title capitalized. Connect listings to page numbers with leader dots.

6.5.5.5 Bibliography. If the handbook contains a Bibliography, type the word "BIBLIOGRAPHY" three lines below the last listing, flush with left margin. Connect listing to page number with leader dots.

6.5.5.6 References. Type the word "REFERENCES" three lines below the last listing, flush with left margin. Connect listing to page number with leader dots.

6.5.5.7 Glossary. If the handbook contains a Glossary, type the word "GLOSSARY" three lines below the last listing, flush with left margin. Connect listing to page number with leader dots.

6.5.6 Text

6.5.6.1 Paragraphs. Number paragraphs in accordance with par. 6.1.2. Indent the underlined title 10 spaces from the left margin. If text follows the title, end the title with a period and begin the paragraph on the same line. All other lines are placed flush with the left margin. Leave a blank line between paragraphs. Indent succeeding paragraphs the same as numbered paragraphs.

6.5.6.2 References in Text. There are three basic types of references: authored publications, forms, and organizational documents. Cite references as follows:

a) Authored publications. The first time an authored publication is referenced in the text, cite the underlined publication title followed by a comma, then cite the name of the author and the year of the publication. Thereafter, cite only the author's last name and the year of publication (e.g., refer to Jones, 1983).

b) Forms. The first time a form is referenced in the text, cite the number of the form, followed by the underlined title of the form (e.g., DD Form 1426, Standardization Document Improvement Proposal.) Thereafter, cite only the form number (e.g., DD Form 1426).

c) Organizational documents. The first time an organizational document is referenced in the text, spell out the name of the organization, followed by its acronym in parentheses, then cite the document number, followed by the underlined document title (e.g., American Society for Testing and Materials (ASTM), B 91, Standard Specification for Magnesium-Alloy Forgings). Thereafter, cite only the acronym and the document number (e.g., ASTM B 91).

6.5.6.3 Equations. Center equations and formulas from each side of the page, two lines below and two lines above the text, and identify by the word "EQUATION" typed flush left and followed by a colon. Number equations consecutively throughout the text with the number flush right and in parentheses. Locate the word "EQUATION," the equation itself, and its number on same line in text, if possible. Two lines below, flush left, type the word "where." Two lines below, indented 10 spaces, define each element of the equation. Line up all equal signs in definitions. Equations may contain subscript and superscript numbers and letters and Greek symbols.

6.5.6.4 Figures and Tables. Use Arabic numerals to number figures and tables, separately and consecutively throughout the text. Box rule figures and tables and center the number two lines below the box rule for figures, and four lines above the box rule for tables. One line below the number, center the title of the figure or table. Landscape figures when it proves necessary to accommodate the information being presented. Do not landscape tables; set them up vertically. Ensure figures and tables are within the 6-1/2- by 9-inch (163- by 225-mm) image area (refer to par. 6.5.1). Do not photo reduce or print-out the contents of figures, tables, or facility plates in other than Courier 12 pitch font to keep them within the required 6-1/2- by 9-inch (163- by 225-mm) image area.

Locate figures and tables as close as possible to their descriptions in the text. Do not break paragraphs to insert figures or tables. Do not use foldout figures and tables. Refer to par. 6.5.1.

6.5.6.5 Informal Tables. Informal tables are not numbered and are related directly to the preceding text. Center tables within the text and read tables with the text for ease or emphasis. Do not list informal tables in the contents.

6.5.6.6 Facility Plates. To keep text and guidance drawings together in one handbook, NAVFACENGCOM encourages the use of facility plates. Locate facility plates as near as possible to their citation in the text or all together immediately following the last page of text. The requirements are as follows:

- a) Each facility plate may have several sheets, e.g., general layout, narrative, notes, utility requirements, or specialties (as needed).
- b) Use category codes for facility plate numbers and number sheets consecutively.
- c) Prepare facility plates on 8-1/2- by 11-inch (213- by 275-mm) paper; image area 6-1/2 by 9 inches (163 by 225 mm).
- d) Borders are to be 1 inch (25 mm) on all sides.
- e) Ensure that lettering within the plate can be read from the bottom or right-hand side of the handbook.
- f) Use Courier 12 pitch type or size equivalent.
- g) Include graphic scales on facility plates which are dimensioned. Use foot measurements for dimension lines and quantity; use square feet measurements for building areas. If the facility plate is not to scale, state this on the facility plate inside the border.
- h) Include SI units on facility plates in addition to customary units and include a graphic millimeter scale directly under the graphic foot scale. Use millimeter measurements for dimension lines and quantity; use square meter measurements for building areas.

See Figure 5 for sample facility plate format.

6.6 Bibliography. A bibliography directs the handbook user to related publications which are recommended for supplementary reading. If a bibliography is included, begin it on the next page after the appendices, if any.

Arrange the bibliography alphabetically in the same manner required for references (refer to par. 6.7). Group by subject and alphabetize within each subject if this increases ease of use. Center the word "BIBLIOGRAPHY" three lines down from the document identifier; two lines down, flush with the left margin, begin with the first entry.

MIL-HDBK-1006/3C

6.7 References. Include a reference page in all handbooks. List all documents referenced in the handbook and their availability. Place the reference page after the bibliography. Center the word "REFERENCES" three lines from the document identifier. Two lines down, flush with the left margin, add the following:

"NOTE: THE FOLLOWING REFERENCED DOCUMENTS FORM A PART OF THIS HANDBOOK TO THE EXTENT SPECIFIED HEREIN. USERS OF THIS HANDBOOK SHOULD REFER TO THE LATEST REVISIONS OF CITED DOCUMENTS UNLESS OTHERWISE DIRECTED."

Three lines down, flush with the left margin, list references in alphabetical order, as shown in pars. 6.7.1 and 6.7.2.

6.7.1 Government Documents. List referenced Government specifications, standards, handbooks, drawings, and publications as applicable, numerically (except list federal specifications alphanumerically) by document identifier excluding revision letters with titles under the following headings:

- a) (Should be standard in all handbooks - others can be modified.)

FEDERAL/MILITARY SPECIFICATIONS, STANDARDS, BULLETINS, HANDBOOKS, AND NAVFAC GUIDE SPECIFICATIONS:

Unless otherwise indicated, copies are available from the STANDARDIZATION DOCUMENT ORDER DESK, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.

b) NAVY MANUALS, P-PUBLICATIONS, AND MAINTENANCE OPERATING MANUALS:

Available from Department of Defense Single Stock Point (DODSSP), Subscription Services Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.

DODSSP Special Assistance Desk (No Orders) - (215) 697-2667/2179 or
DSN 442-2667/2179

DODSSP Subscription Services Desk - (215) 697-2569 or DSN 442-2569

Government agencies may order these documents by using the Military Standard Requisition and Issue Procedures (MILSTRIP) order system using stock control numbers; however the private sector must purchase these documents.

c) NAVY DEPARTMENT INSTRUCTIONS: Available from Commanding Officer, Naval Publications and Forms Center (NPFC), 5801 Tabor Avenue, Philadelphia, PA 19120-5099.

d) OTHER GOVERNMENT DOCUMENTS AND PUBLICATIONS:

(1) Add the following parenthetical source statement following the listing of other Government documents and publications:

MIL-HDBK-1006/3C

TITLE: 1, 2, 3 lines, as necessary.

TITLE XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	DATE MO/YR	FACILITY PLATE NO. (Category Code)	SHEET 1 of 4
--	---------------	---------------------------------------	-----------------

Figure 5
 Sample Facility Plate Format

"(Unless otherwise indicated, copies are available from (name and address of source))."

6.7.2 Non-Government Standards and Other Publications. List non-Government standards and other publications including DOD adopted documents not normally furnished by the Government in appropriate order (numerically or alphanumerically) under the headings of the respective non-Government standards organization. If the non-Government standard has been adopted by the DOD and is listed in the DODISS, after the title add the words "(DOD adopted)"; do not provide the specific issue date or other revision indicator. If the non-Government standard has not been adopted by the DOD, the specific issue date or other revision indicator may be provided, but it is not required. Include this listing under the following subparagraph heading:

a) NON-GOVERNMENT PUBLICATIONS:

Unless otherwise specified, the issues of the documents which are DOD adopted are those listed in the DODISS:

In addition, include the following parenthetical source statement following each individual publication or each group of related publications which may be obtained from a common source:

"(Unless otherwise indicated, copies are available from (name and address of source))."

b) Authored publications. If the handbook contains authored publications (refer to par. 6.5.6.2), cite them preceding the organizational publications discussed in subpar. a) above, in alphabetical order by author.

6.8 Glossary. If the EIC or AIC deems it useful, prepare a glossary for the handbook. Place it after the appendices, bibliography, and references.

Center the word "GLOSSARY" three lines below the document identifier. If the glossary contains terms or phrases which are used in the handbook out of their common context, precede the list with a statement to that effect; e.g., "Interpret these terms or phrases used in this document as follows:"

Two lines down, flush with the left margin, alphabetically list the terms, phrases, and acronyms requiring explanation. Type acronyms in capital letters, but only capitalize the first letter of a term and each principal word of a phrase. Underline the term, phrase, or acronym; type a period; insert two character spaces; and define.

6.9 Standardization Document Improvement Proposal (DD Form 1426).

Include a DD Form 1426 in each handbook. Type in the document number, document title, date of document, name and address of the PA so that users can easily comment about the usefulness of the handbook. This form is the last page in the handbook before the back cover and is unnumbered. See the DD Form 1426 at the end of this handbook. When a DD Form 1426 is received with Block 7 completed, send an acknowledgement within 30 days to the suggester, advising that comments were received and are being considered; or the disposition of the comment received.

6.10 Changes to Existing Handbooks

6.10.1 Types of Changes

6.10.1.1 Significant Technical Changes. Issue a change to correct technical errors or deficiencies inadvertently overlooked in the preparation of the original handbook.

6.10.1.2 Essential Comments. A change may be warranted to resolve essential comments received after publication of the handbook.

6.10.1.3 Changes to State-of-the-Art. Issue a change to reflect a significant change to the state-of-the-art in the subject matter encompassed by the handbook.

6.10.1.4 Changes in Referenced Publications. Issue a change if a document referenced by the handbook is reissued and if such reissuance is in conflict with criteria in the handbook.

6.10.2 Preparation of Changes. The PA of the handbook prepares the change.

6.10.2.1 Format. Do not issue pen-and-ink changes to handbooks. Prepare changes in accordance with the format of the original handbook.

6.10.2.2 Page Changes. Submit any changed page, as well as any page on the front or back of the changed page, to NAVFACENGCOM Code 15C for publication. Retain original page numbers, if possible. Center the change number and date of change on each changed page, one line below the document identifier. Refer to par. 7.6.3.

6.10.2.3 Additional Material. Should additional material be added so that original page space does not suffice, new pages may be added after the changed page. This is done by adding a letter, beginning with "a," to the number of the preceding page and thereby creating a new page.

Section 7: MILITARY HANDBOOK DETAILED PROCEDURES

7.1 General. Military handbooks are part of the Defense Standardization and Specification Program. Handbooks are prepared in conformance with DOD 4120.3-M, Defense Standardization and Specification Program Policies, Procedures, and Instructions and MIL-STD-962, and as supplemented herein.

7.1.1 Assignment of Military Handbook Number and Project Number. Military handbook numbers and Defense Standardization and Specification Program project numbers or FACR numbers for handbooks prepared as engineering and design criteria manuals are assigned by NAVFACENGCOM Code 15C prior to starting a new or revised handbook. Each new, revised, or changed handbook requires a new project number.

7.1.2 Designation of Coordination Draft. A coordination draft of a handbook has not been approved by NAVFACENGCOM Code 15C and is therefore subject to modification. Do not use a coordination draft on the handbook prior to approval. On the cover page of the handbook, in the upper left-hand corner after the document identifier, type the word "(DRAFT)" and on all remaining pages, center the document identifier and the word "(DRAFT)" at the top.

7.2 Military Handbook Cover. See Figure 6 for sample of military handbook cover.

7.2.1 Measurement System Identification. Place the applicable measurement system identification in a rectangular box above the document identifier on the handbook cover page. Identify metric documents by the words "SYSTEM INTERNATIONAL." Identify inch-pound documents in the same manner, except use the words "INCH-POUND." Identify documents which include a mixture of metric and inch-pound units by "INCH-POUND." Similarly, identify those documents which can be used in either the metric or inch-pound systems by using the words "NOT MEASUREMENT SENSITIVE."

Examples:

SYSTEM INTERNATIONAL	NOT MEASUREMENT SENSITIVE	INCH-POUND
MIL-HDBK-1234	MIL-HDBK-1234	MIL-HDBK-1234

7.2.2 Document Identifier. One inch from top of page in upper right corner, identify military handbooks by "MIL-HDBK" followed by a hyphen and an Arabic numeral assigned by NAVFACENGCOM Code 15C (e.g., MIL-HDBK-1008B).

7.2.3 Document Date. NAVFACENGCOM Code 15C approves military handbooks and dates immediately before forwarding for reproduction and distribution.

MIL-HDBK-1006/3C

INCH-POUND

MIL-HDBK-1008B
15 JANUARY 1994

SUPERSEDING
MIL-HDBK-1008A
31 MARCH 1988

MILITARY HANDBOOK

FIRE PROTECTION FOR FACILITIES

ENGINEERING, DESIGN, AND CONSTRUCTION

AMSC N/A

AREA FACR

DISTRIBUTION STATEMENT A. APPROVED FOR PUBLIC RELEASE: DISTRIBUTION IS
UNLIMITED

Figure 6
Sample of Military Handbook Cover

7.2.4 Revisions. Indicate revisions by a capital letter immediately following the document identifier. Mark the first revision with the letter "A," and indicate succeeding revisions in alphabetical sequence. Do not use the letters "I," "O," "S," or "Z." Type the latest approval date under the document identifier.

Example: MIL-HDBK-1008B
15 JANUARY 1994

7.2.5 Document Type and Title. Ten lines down, center "MILITARY HANDBOOK"; three lines down, center the handbook title in capital letters. If the title is more than one line, center additional line two lines below the first line of the title.

7.2.6 DOD Seal. Center the DOD seal with a diameter of 1-1/2 inches (38 mm) below the title.

7.2.7 Area Designation and Distribution. At the bottom of the cover, type the area designation, "AMSC N/A" in the lower left corner and "AREA FACR" in the lower right corner of the cover, above the distribution statement. Two lines below, include a distribution statement in capital letters as follows:

AMSC N/A

AREA FACR

DISTRIBUTION STATEMENT A. APPROVED FOR PUBLIC RELEASE:
DISTRIBUTION IS UNLIMITED

7.3 Foreword. Refer to par. 6.5.4 for general guidance. In the foreword of military handbooks under the cognizance of NAVFACENGCOM Code 15, include the following:

"THIS HANDBOOK SHALL NOT BE USED AS A REFERENCE DOCUMENT FOR PROCUREMENT OF FACILITIES CONSTRUCTION. IT IS TO BE USED IN THE PURCHASE OF FACILITIES ENGINEERING STUDIES AND DESIGN (FINAL PLANS, SPECIFICATIONS, AND COST ESTIMATES). DO NOT REFERENCE IT IN MILITARY OR FEDERAL SPECIFICATIONS OR OTHER PROCUREMENT DOCUMENTS."

7.4 Content. Make the first section of military handbooks "Section 1: INTRODUCTION," and include the following as subparagraphs.

7.4.1 Scope. Use a clear, concise explanation of the extent or range of technical content of the handbook as the principal statement of the scope. Include a subparagraph entitled "Application" where it is required to indicate the general field or particular area of use.

7.4.2 Cancellation. List all documents superseded or cancelled by the new or revised handbook.

MIL-HDBK-1006/3C

7.5 Technical Sections. Begin technical portions of the handbook in Section 2. Arrange these sections in a logical sequence according to the general scheme. If the manual is in a two part format, do not repeat Section 1 in Part B; number Sections consecutively throughout. This makes referencing clearer.

7.6 Pagination. Refer to par. 6.1.1 for guidance on numbering from front cover to first section. Beginning with the first page of the text, number pages consecutively, 1 inch (25 mm) from the bottom of page, centered, using Arabic numerals. Do not insert blank pages.

7.7 Changes to Military Handbooks. Refer to par. 6.10.1 for types of changes which may be issued. Changes to military handbooks are not cumulative, i.e., a Change 2 to a handbook does not include Change 1.

7.7.1 Issuance of Changes. Use notices to transmit new pages or page revisions to military handbooks. Prepare such notices and submit to NAVFACENGCOM Code 15C in hard copy and on 3-1/2-inch DSHD diskettes preferably, or 5-1/4-inch DSDD or DSHD diskettes. Refer to par. 6.4.

7.7.2 Preparation of Change Notices. Notices carry the same title and document identifier as the military handbook which they affect. See Figure 7 for sample of change notice for military handbook.

7.7.3 Date of Change. Date the changed pages the same as the change notice. At the top of each page, type the change number and date, centered, immediately below the document identifier:

EXAMPLE:

MIL-HDBK-1025/1
Change 3, 30 June 1994

7.8 Cancellation. NAVFACENGCOM Code 15C will issue a cancellation notice or "inactive for new design" note when it is determined a military handbook is no longer required.

7.8.1 Process. During the review process, if the EIC or AIC of a PA determines that a military handbook should be cancelled, coordinate a notice of cancellation with interested activities. If the handbook is being replaced, circulate the notice of cancellation with the coordination draft of the document that will supersede it. Upon receipt of concurrences, prepare a notice of cancellation and forward it to NAVFACENGCOM Code 15C. NAVFACENGCOM Code 15C arranges for printing and distribution of the notice in accordance with DOD 4120.3-M, Chapter III, Section 8. See Figure 8 for sample of cancellation notice for military handbook.

MIL-HDBK-1006/3C

NOTICE OF
CHANGE

MIL-HDBK-1025/1
NOTICE 3
30 JUNE 1994

MILITARY HANDBOOK

PIERS AND WHARVES

TO ALL HOLDERS OF MIL-HDBK-1025/1:

1. THE FOLLOWING PAGES OF MIL-HDBK-1025/1 HAVE BEEN REVISED AND
SUPERSEDE THE PAGES LISTED:

NEW PAGE	DATE	SUPERSEDED PAGE	DATE
vii	30 June 1994	vii	30 October 1987
viii	30 June 1994	viii	30 October 1987
viii-a	30 June 1994	New Page	
13	30 June 1994	13	30 October 1987
14	30 June 1994	14	30 October 1987
25	30 June 1994	25	30 October 1987
25a	30 June 1994	New Page	
26	30 June 1994	26	30 October 1987
191	30 June 1994	191	28 February 1992

2. RETAIN THIS NOTICE AND INSERT BEFORE TABLE OF CONTENTS.

3. HOLDERS OF MIL-HDBK-1025/1 WILL VERIFY THAT PAGE CHANGES AND
ADDITIONS INDICATED ABOVE HAVE BEEN ENTERED. THIS NOTICE PAGE WILL BE
RETAINED AS A CHECK SHEET. THIS ISSUANCE, TOGETHER WITH APPENDED PAGES,
IS A SEPARATE PUBLICATION. EACH NOTICE IS TO BE RETAINED BY STOCKING
POINTS UNTIL THE MILITARY HANDBOOK IS COMPLETELY REVISED OR CANCELLED.

CUSTODIAN
NAVY - YD2

PREPARING ACTIVITY
NAVY - YD2

PROJECT NO.
FACR-1126

AMSC N/A
DISTRIBUTION STATEMENT A. APPROVED FOR PUBLIC RELEASE: DISTRIBUTION IS
UNLIMITED

AREA FACR

Figure 7
Sample of Change Notice for Military Handbook

MIL-HDBK-1006/3C

NOTICE OF
CANCELLATION

MIL-HDBK-XXXX/X
NOTICE X
DATE(day,month,year)

MILITARY HANDBOOK

MILITARY HANDBOOK TITLE CENTERED

SECOND LINE OF MILITARY HANDBOOK TITLE CENTERED

MIL-HDBK-XXXX/X, dated (day,month,year) is hereby cancelled
without replacement.

CUSTODIANS
ARMY-
NAVY-YD
AF-

PREPARING ACTIVITY
NAVY-YD

PROJECT NUMBER
FACR-XXXX

AMSC N/A

AREA FACR

DISTRIBUTION STATEMENT A. APPROVED FOR PUBLIC RELEASE: DISTRIBUTION IS
UNLIMITED

Figure 8
Sample of Cancellation Notice for Military Handbook

7.8.2 "Inactive for New Design" Note. When documents are made inactive for new design concurrent with a revision action, the following note shall appear below the title and above the preamble on the self cover and be boxed for emphasis. Superseding documents for new design shall be noted in the box when applicable. See Figure 9 for sample of "inactive for new design" note.

Inactive for new design after (date)
For new design use MIL-STD-000.

7.9 Validation. If the preparing activity determines a handbook is technically current with the state-of-the-art and user functional requirements, revalidate handbook. Prepare a validation notice as shown in Figure 10 for sample of validation notice for military handbook. Indicate in the notice that the handbook has been reviewed; that it conforms to policies and procedures contained in DOD 4120.3-M and MIL-STD-962; that reference documents are still valid; and that the document is current with the state-of-the art. Validation of military handbooks does not require coordination.

7.10 Notice of Reinstatement. The PA (or, with PA permission, another activity) may request NAVFACENGCOM Code 15C to reinstate a cancelled military handbook by issuance of a notice of reinstatement. The notice supersedes the previous notice of cancellation, informs interested activities of the reinstatement date and includes information on the revised status of the military handbook and other needed information. See Figure 11 for sample notice of reinstatement for military handbook.

MIL-HDBK-1006/3C

NOT MEASUREMENT
SENSITIVE

NOTICE OF INACTIVE
FOR NEW DESIGN

MIL-HDBK-417A
NOTICE 1
18 October 1995

DEPARTMENT OF DEFENSE
HANDBOOK FOR
CLASSIFICATION SYSTEM FOR
SOLID ELASTOMERIC MATERIALS

MIL-HDBK-417A, dated 8 February 1976, is inactive for new design and shall be no longer used as a guidance reference for new designs.

New designs should use American Society for Testing and Materials Standard D 2000, entitled "Elastomeric Materials or Automotive Applications." CAUTION: The supersession information is valid as of the date of this notice and may be superseded by subsequent revisions of the superseding document.

(Application for copies of ASTM publications should be addressed to the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.)

Custodians:

Army - MR
Navy - SH
Air Force - 11

Preparing Activity:

Army - MR
(Project 9320-1234)

AMSC N/A

FSC 9320

DISTRIBUTION STATEMENT A. Approved for public release: distribution is unlimited.

Figure 9
Sample of "Inactive for New Design" Note

MIL-HDBK-1006/3C

NOTICE OF
VALIDATION

MIL-HDBK-XXXX/X
NOTICE X
DATE (day,month,year)

MILITARY HANDBOOK

MILITARY HANDBOOK TITLE CENTERED

SECOND LINE OF MILITARY HANDBOOK TITLE CENTERED

MIL-HDBK-XXXX/X, dated (day,month,year) has been reviewed and
determined to be current.

CUSTODIANS
ARMY-
NAVY-YD
AF-

PREPARING ACTIVITY
NAVY-YD

PROJECT NUMBER
FACR-XXXX

AMSC N/A
DISTRIBUTION STATEMENT A.
UNLIMITED

AREA FACR
APPROVED FOR PUBLIC RELEASE: DISTRIBUTION IS

Figure 10
Sample of Validation Notice for Military Handbook

MIL-HDBK-1006/3C

NOTICE OF
REINSTATEMENT

MIL-HDBK-XXXX/X
NOTICE X
DATE(day,month,year)
SUPERSEDING
NOTICE X
DATE(day,month,year)

MILITARY HANDBOOK

MILITARY HANDBOOK TITLE CENTERED

SECOND LINE OF MILITARY HANDBOOK TITLE CENTERED

MIL-HDBK-XXXX/X, dated (day,month,year) and Notice X thereto,
cancelled by Notice X, dated (day,month,year) are hereby reinstated
and may be used.

CUSTODIANS
ARMY-
NAVY-YD
AF-

PREPARING ACTIVITY
NAVY-YD

PROJECT NUMBER
FACR-XXXX

AMSC N/A

AREA FACR

DISTRIBUTION STATEMENT A. APPROVED FOR PUBLIC RELEASE: DISTRIBUTION IS
UNLIMITED

Figure 11
Sample of Notice of Reinstatement for Military Handbook

APPENDIX A
SAMPLE SCOPE OF WORK FOR CRITERIA MANUAL DEVELOPMENT

NOTE: Information in brackets is to be edited to reflect information appropriate to criteria manual being developed or revised.

REVISION OF [MILITARY HANDBOOK
MIL-HDBK-1008B, FIRE PROTECTION FOR FACILITIES
ENGINEERING, DESIGN, AND CONSTRUCTION]

SCOPE OF WORK

I. GENERAL REQUIREMENTS

A. PROJECT DEFINITION

1. This project consists of work necessary to revise [Military Handbook, MIL-HDBK-1008B, "Fire Protection for Engineering, Design, and Construction"]. It will serve as planning, engineering, and design guidance to professional facility planners, engineers, and architects (both Navy and Contractor). The guidance will be used for individual project planning, for preparing engineering documentation, and for preparing contractual documents for construction.
- [2. The current fire protection criteria located in MIL-HDBK-1008B are incomplete and do not reflect current fire protection technology.]
3. The Government will negotiate a fixed-price fee for work contained in Phases A through D.

B. ADMINISTRATIVE PROCEDURES AND INSTRUCTIONS

1. The work will be administered by the [Preparing Activity], Naval Facilities Engineering Command. Instruction to the Architect-Engineer (A/E) Contractor will be made by the Commanding Officer. In the routine administration of the contract, such direction will be through the [Engineer-in-Charge (EIC)/Architect-in-Charge (AIC)].
2. The criteria text [and facility plates] for [MIL-HDBK- 1008B] shall be accomplished in accordance with the criteria listed herein and other applicable criteria. The work shall be in accordance with the submission requirements and schedule as herein stated.

MIL-HDBK-1006/3C

APPENDIX A (Continued)

3. [As soon as possible] after award of this contract, a conference will be held, at which time the A/E Contractor will be given the opportunity to ask pertinent questions involving procedures for preparation of the [handbook]. Additional conferences may be scheduled as necessary.
4. The A/E Contractor shall submit monthly reports on the progress of the project. Reports shall include percent of completion, problems encountered, if any, and a current status of the submission schedule.
5. Correspondence, excluding invoices, shall be addressed to the [Commanding Officer or Commander], [Preparing Activity and address] with [two] extra copies. Invoices shall be sent to the attention of [Code 04] with [four] extra copies.
6. The A/E Contractor shall prepare conference reports of conferences and telephone instructions, and deliver [three] copies each of such reports to the [Commanding Officer or Commander], [Preparing Activity, Attention: Codes 406 and 407] within [5] days from date of such conference or telephone instruction.
7. The contract number shall be used on reports and correspondence regarding this contract.
8. The A/E Contractor is cautioned that a technically deficient document or a poorly drafted document resulting in illegible copies will require resubmission.
9. Prior to proceeding with the preparation of the final document, a conference will be held for final coordination and resolution of any unsolved problems.

C. CRITERIA

1. The following is a [partial] listing of criteria sources which shall be consulted for this project:
 - [a. MIL-HDBK-1190, Facility Planning and Design Guide]
 - b. MIL-HDBK-1006/3B, Policy and Procedures for Engineering and Design Criteria Manual Preparation
 - [c. MIL-HDBK-1008B, Fire Protection for Facilities Engineering, Design, and Construction]

MIL-HDBK-1006/3C

APPENDIX A (Continued)

d. Additional Criteria

[(1) National Fire Protection Association (NFPA) Standards]

(2) ASTM E 621, Standard Practice for the Use of Metric (SI) Units in Building Design and Construction

2. The Government will provide the above documents, on a loan basis.

II. SPECIFIC REQUIREMENTS

A. PROJECT REQUIREMENTS

1. The A/E Contractor shall review and evaluate the present NAVFAC and the above-listed criteria relating to [fire protection] and identify data, criteria, and references to be updated and any new text and requirements needed to be developed.

[2. [Visit facilities and locations. Interview facility managers and users. Analyze the actual facilities and the local users' requirements.]

3. NAVFACENGCOM requires a detailed outline of the criteria text. The developed outline shall address the concerns listed in this Scope of Work. The outline may contain the following major headings:

[Section 1: Introduction
Section 2: Planning Factors
Section 3: General Fire Protection Subjects
Section 4: Specific Fire Protection Subjects
Section 5: Fire Protection Standard Construction Details]

[4. Develop conceptual sketches for the schematic designs to be included in the handbook as facility plates. Two to three conceptual sketches shall be developed for each schematic design.]

[5. Develop a list of possible detailed drawings. Confer with the Government as to the details desired by the Government. The details will then be prepared as facility plates.]

6. Prepare the criteria text. The criteria text shall be in accordance with the listed criteria and in accordance with the format for military handbooks described in MIL-HDBK- 1006/3C, Policy and Procedures for Engineering and Design Criteria Manual

MIL-HDBK-1006/3C

APPENDIX A (Continued)

Preparation. The criteria text shall honor the following parameters and discuss the following subjects, among other topics:

[List the major topics that are to be included in the text. This listing may be in terms of the program for the facility type or a listing of functional concerns.]

7. Coordination review comments shall be processed as described in "Section 5: COORDINATION" of MIL-HDBK-1006/3C.
8. Required certification.

B. SUBMITTAL PROCEDURES AND REQUIREMENTS

1. General

- a. The A/E Contractor shall accomplish the work in the various phases as outlined below. The events scheduled in the Engineering Criteria Management System, defined in MIL-HDBK-1006/3C, should be noted.
- b. Copies of the criteria text and graphics submitted for the various review phases and the final submission shall be in final format. Final format includes use of 8-1/2 by 11-inch white paper and conformance to the requirements of MIL-HDBK-1006/3C and additional instructional documents listed.
- c. If any submission is unacceptable, resubmissions will be required until an acceptable submission is obtained.

2. PHASE A: PRELIMINARY SUBMISSION

- a. Prepare a preliminary submission for review.
- b. The preliminary submission will be based on the following project requirements:
 - (1) Evaluation of present criteria;
 - [(2) Site visits;]
 - (3) Development of a layout program;
 - [(4) Development of a list of possible details;]

MIL-HDBK-1006/3C

APPENDIX A (Continued)

(5) Addressing items of health and safety, functional or technical requirements, and the state-of-the-art.

- c. The preliminary submission will consist of a detailed outline of criteria text.
- d. Submit [five] copies of each submission element [and present the preliminary submission orally at the preparing activity's office], after which a period of review will follow.
- e. Allow 60 days for approval.
- f. Upon completion of the review, the Government will return marked-up documents to the A/E Contractor with comments as received from Government reviewers indicating desired revisions and corrections for incorporation into the next phase of work.

3. PHASE B: COORDINATION SUBMISSION

- a. Prepare a coordination submission for which the work should be approximately 90 percent complete.
- b. This submission shall be used for formal coordination. The Government will submit the draft for coordination review among Government agencies; the A/E Contractor shall submit the draft for coordination among a cross-section of non-Government groups interested in such facilities.
- c. The coordination submission shall be based on the following further project requirements:
 - (1) Disposition of prior comments as discussed above.
 - (2) Development of criteria text.
- d. The coordination submission shall contain the criteria text, 90 percent completed and in final format.
- e. Submit [25] copies of the draft in final format.
- f. Upon completion of the review, the Government will return marked-up documents to the A/E Contractor with comments indicating desired revisions and corrections for incorporation into the next phase of work.

APPENDIX A (Continued)

- g. When required by the Scope of Work, a separate 24 to 40 hour VETS is required to be performed prior to this submission. Conduct the VETS under a Society of American Value Engineers (SAVE) CVS who is also a practicing architect or engineer. The CVS may be an employee of the Contractor or a consultant supported by the discipline(s) representing the specialty of the criteria preparation. One member of the VETS shall participate in the site visits. The results of the VETS will accompany the coordination submission along with the A/E's recommendation for implementation. The Government's review will resolve implementation of those recommendations.

4. PHASE C: 100 PERCENT SUBMISSION

- a. Review comments as received. Resolve comments using procedure in MIL-HDBK-1006/3C. [Review the coordination comments requiring response and annotate responses on a copy of each.] Prepare a 100 percent submission.
- b. Submit the following:
 - (1) Submit [five] copies of the 100 percent submission in final format. The draft military handbook shall be 100 percent complete and in accordance with requirements previously stated herein.
 - (2) Submit [three] hard copies and one 3-1/2-inch DSHD diskette preferably, or 5-1/4-inch DSDD or DSHD diskette of comments and their resolution carried out in accordance with MIL- HDBK-1006/3C.
 - [(3) Submit three copies of annotated coordination comments.]
 - (4) Required certification.
- b. Upon completion of review, the Government will return marked-up documents to the A/E Contractor with comments indicating desired revisions and corrections for incorporation into the next phase of work.

5. PHASE D: FINAL SUBMISSION

- a. Prepare a final submission which contains the revised document, 100 percent complete and camera-ready for printing.

MIL-HDBK-1006/3C

APPENDIX A (Continued)

- b. The final submission shall consist of the following:
- (1) One set of camera-ready originals of complete criteria manual in final format.
 - (2) 3-1/2-inch DSHD diskette(s) preferably, or 5-1/4-inch DSDD or DSHD diskette(s) of the complete criteria document.
 - (3) [Ten] copies of the final document in the 8-1/2 by 11-inch format.
 - (4) [One] hard copy and one 3-1/2-inch DSHD diskette preferably, or 5-1/4-inch DSDD or DSHD diskette of the comments, revised as necessary in response to the 100 percent comments.
 - (5) When a VETS is required by the Scope of Work, submit one hard copy and one 3-1/2-inch DSHD diskette of the VETS to NAVFACENGCOM Code 15CV for incorporation in the NAVFAC Value Engineering Data Information System (VEDIS) and subsequent issue of the National Institute of Building Sciences (NIBS) CD-ROM.
- c. The Government will make a final review and in the event that some items are found which have not been corrected, the submission will be returned for correction and resubmission.

C. SUBMISSION SCHEDULE

The A/E Contractor shall submit the various phases of work for review as required by this Scope of Work.

REFERENCES

NOTE: THE FOLLOWING REFERENCED DOCUMENTS FORM A PART OF THIS HANDBOOK TO THE EXTENT SPECIFIED HEREIN. USERS OF THIS HANDBOOK SHOULD REFER TO THE LATEST REVISIONS OF CITED DOCUMENTS UNLESS OTHERWISE DIRECTED.

FEDERAL/MILITARY SPECIFICATIONS, STANDARDS, BULLETINS, HANDBOOKS, AND NAVFAC GUIDE SPECIFICATIONS:

Unless otherwise indicated, copies are available from the Naval Publishing and Printing Service Office (NPPSO), Standardization Document Order Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.

Department of Defense Index of Specifications and Standards (DODISS).

BULLETINS

MIL-BUL-34 Engineering and Design Criteria for Navy Facilities

STANDARDS

MIL-STD-962 Standard Practice for Defense Standards, Handbooks, Acquisition Guides, and Bulletins.

HANDBOOKS

MIL-HDBK-1006/1 Policy and Procedures for Project Drawings and Specifications Preparation.

MIL-HDBK-1006/2 Policy and Procedures for Guide Specification Preparation.

MIL-HDBK-1006/4 Policy and Procedures for Definitive and Standards Designs and Standard Specification Preparation.

MIL-HDBK-1008B Fire Protection for Facilities Engineering, Design, and Construction.

OTHER GOVERNMENT DOCUMENTS AND PUBLICATIONS:

DOD 4120.3-M Defense Standardization and Specification Program Policies, Procedures, and Instructions.

DD Form 1425 Standardization Document Improvement Proposal.

NAVFAC 11012/9 Engineering and Design Criteria Review.

(Unless otherwise indicated, copies are available from Naval Publications and Forms Center, 5801 Tabor Avenue, Philadelphia, PA 19120; private organizations may purchase DOD 4120.3-M from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.)

Government Printing Office (GPO) Style Manual

(Unless otherwise indicated, copies are available from Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.)

NON-GOVERNMENT PUBLICATIONS:

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM B 91	Standard Specification for Magnesium-Alloy Forgings.
ASTM E 621	Recommended Practice for the Use of Metric (SI) Units in Building Design and Construction (DOD adopted).
ASTM E 1557	Standard Classification for Building Elements and Related Sitework - UNIFORMAT II.

(Unless otherwise indicated, copies are available from American Society for Testing and Materials (ASTM), Philadelphia, PA 19103.)

NATIONAL INSTITUTE OF BUILDING SCIENCES (NIBS)

CCB	Construction Criteria Base
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(Unless otherwise indicated, subscriptions are available from National Institute of Building Sciences, 1201 L Street, NW, Suite 400, Washington, DC 20005-4024.)

GLOSSARY

Active Voice. A sentence is in active voice when the subject performs the action expressed by the verb instead of being acted upon; e.g., "[You (subject)] state what information must be reviewed."

A/E Firm. A private contractor with architects and engineers qualified to prepare Navy documents.

Cancellation. Removing criteria manual from use by notifying recipients of criteria that it is cancelled, destroying stock, and deleting subject entries in MIL-BUL-34, Engineering and Design Criteria for Navy Facilities ECMS, and references in other publications when such publications are revised.

Criteria. Criteria manuals, guide specifications, definitive designs, standard designs, and other related guidance published to promote quality facilities engineering, design, construction, and maintenance.

Engineer/Architect in Charge (EIC/AIC). The person from the preparing activity in charge of work for development or revision of a criteria manual.

Facilities Technology. Those requirements necessary to ensure each discipline-oriented component system within the facility is current with the state-of-the-art.

Functional Requirements. Those requirements necessary to ensure a particular facility continually meets the objective of the function for which it was constructed.

Government. Naval Facilities Engineering Command acting in the interest of the U.S. Navy and Department of Defense.

Life-Cycle. A definition of the time required for the function under analysis to continue operating; e.g., a 40-year building life.

Life-Cycle Cost. The determination, evaluation, and presentation of costs incurred by and in a facility being engineered or designed. Includes costs of planning, designing, engineering, constructing, operating, and maintaining the facility. Maintenance includes costs of doing business in the facility--wages and salaries.

Major Claimant. Those commands, bureaus, and offices designated by the Chief of Naval Operations, as claimants responsible for the presentation and formulation of programs, such as Military Construction, operations and maintenance, and equipment procurement for the shore (field) activities under their command to the resource sponsors.

Preparing Activity (PA). The Engineering Field Division (EFA), Engineering Field Activity (EFA), or other NAVFACENGCOM activity responsible for the development or revision of a handbook.

Revision. Completing engineering and administrative work necessary for a particular handbook to ensure that it provides current facilities technology and functional and procedural requirements guidance.

Scope of Work. A description of services required of the preparer of a handbook.

State-of-the-Art. The scientific and technical level attained at a given time.

Streamlining. The process of identifying, developing, and implementing improvements in the acquisition process that results in a reduction in cost and time. The process will yield a criteria manual that is easy to use and flexible enough to permit designers to choose the most economical solutions for a specific set of circumstances not under their control.

Validation. Providing an in-depth technical review of a criteria manual, determining that it is current with the state-of-the-art and meets the function for which it was intended, and certifying it valid.

Value Engineering. A systematic approach for seeking out the best functional balance between cost, reliability and performance of the product or project. The process will yield a criteria manual that is easy to use and flexible enough to permit designers to choose the most economical solutions for a specific set of circumstances not under their control.

CUSTODIAN
NAVY - YD2

PREPARING ACTIVITY
NAVY - YD2

PROJECT NO.
FACR-1127

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

INSTRUCTIONS

1. The preparing activity must complete blocks 1, 2, 3, and 8. In block 1, both the document number and revision letter should be given.
2. The submitter of this form must complete blocks 4, 5, 6, and 7.
3. The preparing activity must provide a reply within 30 days from receipt of the form.

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I. RECOMMEND A CHANGE:

1. DOCUMENT NUMBER

MIL-HDBK-1006/3C

2. DOCUMENT DATE (YYMMDD)

950831

3. DOCUMENT TITLE

Policy and Procedures for Engineering and Design Criteria Manual Preparation

4. NATURE OF CHANGE (Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed.)

5. REASON FOR RECOMMENDATION

6. SUBMITTER

a. NAME (Last, First, Middle Initial)

b. ORGANIZATION

c. ADDRESS (Include Zip Code)

d. TELEPHONE (Include Area Code)

(1) Commercial

(2) AUTOVON
(If applicable)

7. DATE SUBMITTED
(YYMMDD)

8. PREPARING ACTIVITY

a. NAME

COMMANDER
NAVAL FACILITIES ENGINEERING COMMAND
ATTN CODE 15C

b. TELEPHONE (Include Area Code)

(1) Commercial

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