



**US Army Corps
of Engineers ®**

EIRS Bulletin

Engineering Improvement Recommendation System

No. 97-10

Date: 31 December 1997

The Engineering Improvement Recommendation System Bulletin is part of our Information Feedback System and is used in military construction programs to expedite dissemination of information regarding problems. The probable solutions included in the EIRS BULLETIN have not been thoroughly explored or staffed. Accordingly, these probable solutions do not represent a final HQUSACE position, and their use is not mandatory. Probable solutions are considered as informational in nature for the purpose of permitting prompt consideration by the field. EIRS Bulletin recipients are encouraged to comment on the probable solutions presented so that other viewpoints can be considered in the development of the final HQUSACE position. Since changes to criteria approved by ENG Form 3078, Recommended Changes to Engineering Documents, are expected to remain firm, they are identified as final solutions and should be used in current design. To defray printing costs, local reproduction of this bulletin is authorized. This issue of the EIRS Bulletin contains 5 enclosures as follows:

ENCL 1: ENGINEERING AND DESIGN - Distribution of EIRS Bulletins

ENCL 2: ENGINEERING AND DESIGN - Department of the Army (DA) Facilities Standardization Program

ENCL 3: Replacement of CEAGS Guide Specifications with Tailoring Options

ENCL 4: RECOMMENDED CHANGES TO ENGINEERING DOCUMENTS - ENG Form 3078 Follow-up Actions

ENCL 5: CURRENT DESIGN CRITERIA - Recently Issued Criteria

FOR THE COMMANDER:

5 Encls

KISUK CHEUNG, P.E.

Chief, Engineering and Construction Division
Directorate of Military Programs

ENGINEERING AND DESIGN

Distribution of EIRS Bulletins:

a. Problem: EIRS Bulletins have proven to be an effective means for dissemination of information regarding problems and their probable solutions. When EIRS Bulletins were initially established they were distributed primarily to the Chiefs of Engineering Divisions and no provision was made for obtaining back issues of these publications. The need for the type of information contained in EIRS Bulletins has greatly increased the number of addressees on the distribution list and demand for back issues; consequently, printing and distribution costs have increased as demand has increased.

b. Probable Solution: Part of the problem has been eliminated by making back issues and current issues of EIRS Bulletins available on TECHINFO. It is planned to solve the printing and mailing problem by phasing out hardcopy distribution of the EIRS Bulletins during FY98 by using only electronic distribution on TECHINFO after 30 September 1998.

As part of the phasing operation please e-mail (eirsbulletin@smtp.hnd.usace.army.mil) if your office is willing to:

(1) Forego hard copy at this time and rely solely on TECHINFO.

or

(2) Forego hard copy at this time, but want an e-mail notification that a new EIRS Bulletin has been added to TECHINFO.

or

(3) Forego hard copy at this time but want an e-mail with the new EIRS Bulletin attached in PDF format.

or

(4) Continue to receive hard copies of EIRS Bulletins, but reduce the number of copies.

Note: TECHINFO is on the Internet at
<http://www.hnd.usace.army.mil/techinfo/index.htm>

ENGINEERING AND DESIGN

Department of the Army (DA) Facilities Standardization Program:

a. Problem: The Architectural and Engineering Instructions (AEI), Design Criteria, Appendix B, 3 July 1994 and the DA Standard Design package for Unaccompanied Enlisted Personnel Housing (UEPH) list and identify four different approved 1+1 UEPH room modules for programming and design purposes. These modules are module A, B, R1, and R2. DAIM-FDR, memorandum, 5 December 1997, subject: Barracks 1+1 Standard Designs (enclosed), eliminates module A as an approved standard 1+1 design for the Army's Whole Barracks Renewal program starting with the FY00 MCA program because the module is significantly more costly than the other three modules. The memorandum also recommends restricting the use of module A in the FY99 program and if an alternate barracks module for FY99 is selected, DAIM-FDR should be advised of expected impacts.

b. Probable Solution: The AEI, Design Criteria, Appendix B will be revised to eliminate module A for programming and design purposes. Also, the DA standard design package for UEPH will be revised to eliminate module A as an approved 1+1 UEPH standard design.

c. Implementation: The implementation of this new information is considered to have *routine application* as defined by ER 1110-345-100.

d. Additional Information: For additional information on UEPH contact Mr. Jeff Hooghous, CEMP-ET, telephone (202) 761-1069, facsimile (202) 761-8815 and the Center of Standardization for UEPH, Mr. Tom Brockbank, CESAS-EN-EM, telephone (912) 652-5212.



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
ASSISTANT CHIEF OF STAFF FOR INSTALLATION MANAGEMENT
600 ARMY PENTAGON
WASHINGTON DC 20310-0600



DAIM-FDR (415-15)

5 DEC 1997

MEMORANDUM FOR SEE DISTRIBUTION

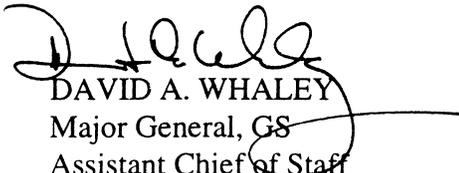
SUBJECT: Barracks 1+1 Standard Designs

1. The purpose of this memorandum is to eliminate Module A as an approved standard 1+1 design for the Army's Whole Barracks Renewal (WBR) program, starting with the FY00 MCA program. Although we recognize the appeal of this module, award data has shown Module A to be significantly more costly than the other three modules. Recommend you also consider restricting the use of Module A in the FY99 program. If you choose to select an alternative barracks module for FY99, advise us of expected impacts.
2. We used award data to compare costs between the four versions of the Army standard design for WBR projects. At an average cost of \$170 per square foot, the cost for Module A is more than one third higher than the average cost of the other three modules.
3. The cost per square foot is a measure by which OSD judges the scope and cost of barracks. During the current Program Budget Decision (PBD) cycle, the Army was decremented \$5.2M as a result of exceeding the OSD unit cost factor for barracks, which is \$123 per square foot. The Army cannot afford to put resources at risk by exceeding the OSD unit cost factors on our WBR projects. In addition, we cannot continue to downscope WBR projects (deleting Company Operations Facilities, for example) to remain within the programmed amount if we are to meet our current barracks buyout timeline. Eliminating the future use of the Module A standard design will help in this effort.
4. USACE and OACSIM will be involved in the next meetings with OSD on the unit cost factors. We will push to ensure the unit cost factor for barracks reflects the award costs we are seeing for our Module B, R1, and R2 standard designs.
5. Controlling the cost of WBR projects is crucial if the Army is to maintain its current barracks buyout timeline. We need to continue to make every effort to minimize program costs where practical.

DAIM-FDR

SUBJECT: Barracks 1+1 Standard Designs

6. POC at OACSIM is LTC Julich, DAIM-FDR, phone 703-697-4125.


DAVID A. WHALEY
Major General, GS
Assistant Chief of Staff
for Installation Management

DISTRIBUTION:

U.S. ARMY FORCES COMMAND, ATTN: AFCCS

U.S. ARMY TRAINING AND DOCTRINE COMMAND, ATTN: ATCS

U.S. ARMY MATERIEL COMMAND, ATTN: AMCCS

EIGHTH U.S. ARMY, ATTN: FRCS

U.S. ARMY EUROPE AND SEVENTH ARMY, ATTN: AEAGX

U.S. ARMY PACIFIC, ATTN: APCS

U.S. ARMY MEDICAL COMMAND, ATTN: MCZX

U.S. ARMY MILITARY DISTRICT OF WASHINGTON, ATTN: ANCS

U.S. ARMY CORPS OF ENGINEERS, ATTN: CEMP-EA

CF:

ASSISTANT SECRETARY OF THE ARMY (INSTALLATIONS, LOGISTICS AND ENVIRONMENT), ATTN: SAILE (MCA)

ASSISTANT SECRETARY OF THE ARMY (FINANCIAL MANAGEMENT AND COMPTROLLER), ATTN: SAFM-BUI-F

ENGINEERING AND DESIGN

Replacement of CEAGS Guide Specifications with Tailoring Options:

a. Problem: A recent survey on use of Corps of Engineers Abridged Guide Specifications (CEAGS) for military construction indicated that these documents continue to serve an important function by providing designers a shorter specification for use in specifying small projects, minor elements of major construction, and for repair and maintenance work. CEAGS are a shortened form of various Corps of Engineers Guide Specifications (CEGS) for military construction. With current funding limitations it is no longer possible to maintain both CEGS and CEAGS specifications; and since CEAGS are spin-offs from the CEGS a decision was made to maintain only the CEGS documents.

b. Probable Solution: The tailoring option within the SPECSINTACT software makes it possible to identify various options within the CEGS which may be retained or deleted to fit project requirements. This makes it possible for the designer, with a few keystrokes, to shorten the specification by eliminating work not included in the project, thereby making it simpler and easier to edit the remaining text to fit project requirements. A few guide specifications which include tailoring options are expected to be available by February 1998, and the effort to include tailoring options in other guide specifications will continue through calendar year 1998.

RECOMMENDED CHANGES TO ENGINEERING DOCUMENTS

ENG Form 3078 Follow-up Actions:

a. Problem: ENG Forms 3078 which indicate an affirmative action by HQUSACE are provided to the originating USACE Commands. Since the ENG Forms 3078 will result in changes to the criteria and guidance, all USACE Commands should receive the same information to be used in criteria designs.

b. Probable Solution: Reviewed ENG Forms 3078 which make a commitment to change guide specifications, manuals, etc. will be included in the EIRS Bulletin, unless the change has been accomplished. This enclosure includes a copy of approved ENG Forms 3078.

ENG FORMS 3078

<u>CONTROL NO.</u>	<u>PUB NO.</u>	<u>OFFICE SYMBOL</u>
1025	CEGS-01330	CESPK-ED-M
1026	CEGS-01451	CESPK-ED-M
1027	CEGS-02580	CESPK-ED-M
1028	TM 5-809-10	CESPK-ED-M
1029	CEGS-15990	CEMP-CE
1030	CEGS-15330	CEMRO-CD-QM
1032	CEGS-08810	CENWS-EN

RECOMMENDED CHANGES TO ENGINEERING DOCUMENTS

(Submit a separate form in quadruplicate for each report)

(ER 1110-345-100)

OFFICE SYMBOL AND DATE
CESPK-CO-C
JULY 9, 1997

DOCUMENT NUMBER AND DATE
CEGS 01330, May 1997

DOCUMENT TITLE
Submittal Procedures

DOCUMENT TYPE

- DRAWING ((STANDARD) (DEFINITIVE)) SPECIFICATION ((GUIDE) (STANDARD))
 DESIGN GUIDES TECHNICAL MANUAL
 ENGINEER MANUAL ENGINEER REGULATION OTHER

- MILITARY
 CIVIL WORKS

SUBJECT
Submittal Procedures

ROUTING *(Check)*

FROM:

District Commander
U.S. Army Engineer District,
Sacramento
CESPK-ED-M

ACTION RECOMMENDED BY DISTRICT COMMANDER

(See Sheet 2)

OFFICE SYMBOL

NAME AND TITLE *(Print or Type)*

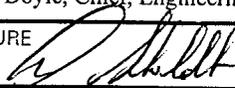
CESPK-ED

Bryan W. Doyle, Chief, Engineering Division

DATE

15 July 97

SIGNATURE



1a. TO:
HQUSACE (CEMP-EA)

INFORMATION COPY OF THIS ENG FORM 3078 WAS SENT

11 Jul 97

(Date)

1b. TO:

Division Commander
U.S. Army Engineer Division,
South Pacific
CESPD-ET

COMMENTS, ACTION, OR RECOMMENDATION BY DIVISION COMMANDER

RECOMMEND APPROVAL.

OFFICE SYMBOL

NAME AND TITLE *(Print or Type)*

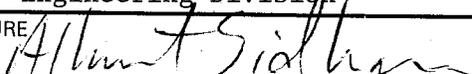
CESPD-ET-E

JACK E. FARLESS
Chief, Engineering Division

DATE

7/29/97

SIGNATURE



2. TO:

HQUSACE (CEMP-EA)
WASH DC 20314-1000

COMMENTS OR ACTION BY COMMANDER, USACE

See attached CEMP-EA comment.

OFFICE SYMBOL

NAME AND TITLE *(Print or Type)*

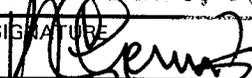
CEMP-E

KISUK CHEUNG, P.E., C/ENGR., DIV., D/MP

DATE

9/9/97

SIGNATURE



3. TO:

Division Commander
U.S. Army Engineer Division,
South Pacific
ATTN: CESPD-ET
333 Market Street
San Francisco, CA
94105

COMMENTS BY DIVISION COMMANDER

OFFICE SYMBOL

NAME AND TITLE *(Print or Type)*

DATE

SIGNATURE

4. RETURN TO:

District Commander
U.S. Army Engineer District,
Sacramento
CESPK-ED-M (ET&S)

COPY FURNISHED

RECOMMENDED CHANGES TO ENGINEERING DOCUMENTS (Cont'd)OFFICE SYMBOL AND DATE
CESPK-CO-CPROBLEM DESCRIPTION AND ACTION RECOMMENDED *(Use additional sheets if necessary.)***1.** PROBLEM:

- a. Section CEGS-01300, SUBMITTAL DESCRIPTIONS, and Section 01305, SUBMITTAL PROCEDURES (July 1993), were superseded by CEGS-01300 (December 1994). CEGS 01300 has been superseded by CEGS 01330, Submittal Procedures, May 1997.
- b. The revised CEGS-01330 Submittal Procedures May 1997, Part I General, has the "definitions of submittals used in Corps of Engineers Guide Specifications as a note to designers (Enclosed in asterisks).
- c. When CEGS-01330 is incorporated into the Contract the definition of submittals are not a part of the specification, as notes to the designer are not a part of contract requirements.

2. RECOMMENDED SOLUTION:

Revise Note enclosed in asterisks, and add paragraph submittals 1.5 Submittals Description (SD) Definitions. See attached revised CEGS 01330.

NAME OF SUBMITTER *(Optional)*

Ronald Goldsberry, CESPK-CO-C, thru Steve Freitas, Criteria Management Unit

WORK TELEPHONE NUMBER *(Optional)*

(916) 557-7296

ENG Form 3078 Continuation

CEMP-EA Response to CESP-K-CO-C Recommendation for CEGS-01330, Submittal Procedures, dated May 1997, CEMP-E Action No. 1025:

Partially concur. A revision of CEGS-01330 is currently in progress and will include the following change:

A new paragraph SUBMITTAL IDENTIFICATION will be added before the existing SUBMITTAL CLASSIFICATION paragraph. The new paragraph will list the SD number and title of the ten existing submittal identifiers, but not the descriptions which will remain in the note. The number and title are currently required to complete the submittal reconciliation operation in the job processing function of SPECSINTACT. The descriptions will not be used in the text because they are unnecessary, conflict with other requirements in some CEGS, and present potential problems in contract administration.

Note that there are ten submittal descriptions used in the CEGS Series (including SD-19 Operation and Maintenance Manuals) in lieu of nine as indicated in the recommendation.

Revised

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS

CEGS-01330 (May 1997)

Superseding
CEGS-01300 (December 1994)

GUIDE SPECIFICATION FOR MILITARY CONSTRUCTION

SECTION TABLE OF CONTENTS

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01330

SUBMITTAL PROCEDURES

05/97

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 - 1.1.2 Information Only
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- 1.5 SUBMITTAL DESCRIPTIONS (SD) DEFINITIONS

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-- End of Section Table of Contents --

 DEPARTMENT OF THE ARMY CEGS-01330 (May 1997)
 U.S. ARMY CORPS OF ENGINEERS -----

Superseding
 CEGS-01300 (December 1994)

GUIDE SPECIFICATION FOR MILITARY CONSTRUCTION

SECTION 01330

SUBMITTAL PROCEDURES

05/97

NOTE: This guide specification covers procedures to be used in making submittals called for in other sections of the specifications. This guide specification is to be used in the preparation of project specifications in accordance with ER 1110-345-720.

PART 1 GENERAL

NOTE: SPECSINTACT includes 19 submittal descriptions. The ~~ten~~nine submittal descriptions used in Corps of Engineers guide specifications (CEGS-Series) are included in this guide specification. The other ~~nineteen~~ submittal descriptions are used by the Naval Facilities Engineering Command (NAVFAC); therefore if NAVFAC guide specifications are used in a Corps project the following conversion should be made:

NAVFAC SD Number and Title	Convert To
SD-02 Manufacturer's Catalog Data	SD-01 Data
SD-03 Manufacturer's Standard Color Charts	SD-01 Data
SD-05 Design Data	SD-01 Data
SD-10 Test Reports	SD-09 Reports
SD-11 Factory Test Report	SD-09 Reports
SD-12 Field Test Report	SD-09 Reports
SD-15 Color Selection Samples	SD-14 Samples
SD-16 Sample Panels	SD-14 Samples
SD-17 Sample Installation	SD-14 Samples
SD-19 Operation and Maintenance Manuals	SD-06 Instructions

~~Definitions of submittals used in Corps of Engineers guide specifications (CEGS-Series) are as follows:~~

~~SD-01 Data~~

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

~~SD-04 Drawings~~

~~Submittals which graphically show relationship of various components of the work, schematic diagrams of systems, details of fabrication, layouts of particular elements, connections, and other relational aspects of the work.~~

~~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.~~

~~SD-07 Schedules~~

~~Tabular lists showing location, features, or other pertinent information regarding products, materials, equipment, or components to be used in the work.~~

~~SD-08 Statements~~

~~A document, required of the Contractor, or through the Contractor, from a supplier, installer, manufacturer, or other lower tier Contractor, the purpose of which is to confirm the quality or orderly progression of a portion of the work by documenting procedures, acceptability of methods or personnel, qualifications, or other verifications of quality.~~

~~SD-09 Reports~~

~~Reports of inspections or tests, including analysis and interpretation of test results. Each report shall be properly identified. Test methods used shall be identified and test results shall be recorded.~~

~~SD-13 Certificates~~

~~Statement signed by an official authorized to certify on behalf of the manufacturer of a product, system or material, attesting that the product, system or material meets specified requirements. The statement must be dated after the award of the contract, must state the Contractor's name and address, must name the project and location, and must list the specific requirements which are being certified.~~

~~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.~~

~~SD-18 Records~~

~~Documentation to record compliance with technical or administrative requirements.~~

~~SD-19 Operation and Maintenance Manuals~~

~~Data which forms a part of an operation and maintenance manual.~~

~~Since the Submittal Description definitions are not included as part of this guide specification text, the SPECSINTACT submittal verification report should not be run on jobs using this section. Running of the submittal verification report would serve no purpose and would only provide a list of SD titles found in other sections and not found in this section.~~

SPECSINTACT is programmed to produce a submittal list or submittal register based on coding included in the various technical sections. When preparing sections not covered by guide specifications, coding must be added for automatic generation of the submittal register. SPECSINTACT steps used in producing the submittal register are provided below as background information for adding coding.

1. Go to SUBMITTALS paragraph of a section.
2. Go to a coded item in the SUBMITTALS paragraph.
3. Find occurrences of the coded item in the text and enter data on submittal register.
4. Repeat steps 1, 2, and 3 for each coded item in the SUBMITTALS paragraph.
5. Repeat steps 1, 2, 3, and 4 for each section in the project.

1.1 SUBMITTAL CLASSIFICATION

Submittals are identified with submittal description (SD) numbers and are classified as follows:

1.1.1 Government Approved

Governmental approval is required for extensions of design, critical materials, deviations, equipment whose compatibility with the entire system must be checked, and other items as designated by the Contracting Officer. Within the terms of the Contract Clause entitled "Specifications and Drawings for Construction," they are considered to be "shop drawings."

1.1.2 Information Only

All submittals not requiring Government approval will be for information only. They are not considered to be "shop drawings" within the terms of the Contract Clause referred to above.

1.2 APPROVED SUBMITTALS

The Contracting Officer's approval of submittals shall not be construed as a complete check, but will indicate only that the general method of

construction, materials, detailing and other information are satisfactory. Approval will not relieve the Contractor of the responsibility for any error which may exist, as the Contractor under the CQC requirements of this contract is responsible for dimensions, the design of adequate connections and details, and the satisfactory construction of all work. After submittals have been approved by the Contracting Officer, no resubmittal for the purpose of substituting materials or equipment will be considered unless accompanied by an explanation of why a substitution is necessary.

1.3 DISAPPROVED SUBMITTALS

The Contractor shall make all corrections required by the Contracting Officer and promptly furnish a corrected submittal in the form and number of copies specified for the initial submittal. If the Contractor considers any correction indicated on the submittals to constitute a change to the contract, a notice in accordance with the Contract Clause "Changes" shall be given promptly to the Contracting Officer.

1.4 WITHHOLDING OF PAYMENT

Payment for materials incorporated in the work will not be made if required approvals have not been obtained.

1.5 SUBMITTAL DESCRIPTIONS (SD) DEFINITIONS

Definitions of submittals used in Corps of Engineers guide specifications (CEGS-Series) are as follows:

SD-01 Data

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

SD-04 Drawings

Submittals which graphically show relationship of various components of the work, schematic diagrams of systems, details of fabrication, layouts of particular elements, connections, and other relational aspects of the work.

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. Data which forms a part of an operation and maintenance manual.

SD-07 Schedules

Tabular lists showing location, features, or other pertinent information regarding products, materials, equipment, or components

SD-08 Statements

A document, required of the Contractor, or through the Contractor, from a supplier, installer, manufacturer, or other lower tier orderly progression of a portion of the work by documenting procedures, acceptability of methods or personnel, qualifications, or other verifications of quality.

D-09 Reports

Reports of inspections or tests, including analysis and interpretation of test results. Each report shall be properly identified. Test methods used shall be identified and test results shall be recorded.

SD-13 Certificates

Statement signed by an official authorized to certify on behalf of the manufacturer of a product, system or material, attesting that the product, system or material meets specified requirements. The statement must be dated after the award of the contract, must state the Contractor's name and address, must name the project and location, and must list the specific requirements which are being certified.

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.

SD-18 Records

Documentation to record compliance with technical or administrative requirements.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 GENERAL

The Contractor shall make submittals as required by the specifications. The Contracting Officer may request submittals in addition to those specified when deemed necessary to adequately describe the work covered in the respective sections. Units of weights and measures used on all submittals shall be the same as those used in the contract drawings. Each submittal shall be complete and in sufficient detail to allow ready determination of compliance with contract requirements. Prior to submittal, all items shall be checked and approved by the Contractor's Quality Control (CQC) representative and each item shall be stamped, signed, and dated by the CQC representative indicating action taken. Proposed deviations from the contract requirements shall be clearly identified. Submittals shall include items such as: Contractor's, manufacturer's, or fabricator's drawings; descriptive literature including (but not limited to) catalog cuts, diagrams, operating charts or curves; test reports; test cylinders; samples; O&M manuals (including parts list); certifications; warranties; and other such required submittals. Submittals requiring Government approval shall be scheduled and made prior to the acquisition of the material or equipment covered thereby. Samples remaining upon completion of the work shall be picked up and disposed of in accordance with manufacturer's Material Safety Data Sheets (MSDS) and in compliance with existing laws and regulations.

3.2 SUBMITTAL REGISTER (ENG FORM 4288)

NOTE: ENG Form 4288 is not a part of this guide specification; the completed ENG Form must be developed locally for each project.

~~SPECSINTACT is programmed to produce a submittal list or submittal register based on coding included in the various technical sections. When preparing sections not covered by guide specifications, coding must be added for automatic generation of the submittal register. SPECSINTACT steps used in producing the submittal register are provided below as background information for adding coding.~~

- ~~1. Go to SUBMITTALS paragraph of a section.~~
- ~~2. Go to a coded item in the SUBMITTALS paragraph.~~
- ~~3. Find occurrences of the coded item in the text and enter data on submittal register.~~
- ~~4. Repeat steps 1, 2, and 3 for each coded item in the SUBMITTALS paragraph.~~
- ~~5. Repeat steps 1, 2, 3, and 4 for each section in the project.~~

SPECSINTACT will automatically enter data for column "r" of ENG Form 4288 by modifying the submittal paragraph as follows: For each occurrence of the classification designation "GA" or "FIO" that is to have the reviewer identified, add any desired three characters as a reviewer designation. The reviewer designation must be separated from the classification designation with a pipe symbol "|", a comma ",", or a dash "-", and must be included within the SPECSINTACT tags used for the classification designation.

At the end of this section is one set of ENG Form 4288 listing items of equipment and materials for which submittals are required by the specifications; this list may not be all inclusive and additional submittals may be required. The Contractor will also be given the submittal register as a diskette containing the computerized ENG Form 4288 and instructions on the use of the diskette. Columns "d" through "r" have been completed by the Government; the Contractor shall complete columns "a" and "s" through "u" and submit the forms (hard copy plus associated electronic file) to the Contracting Officer for approval within [_____] calendar days after Notice to Proceed. The Contractor shall keep this diskette up-to-date and shall submit it to the Government together with the monthly payment request. The approved submittal register will become the scheduling document and will be used to control submittals throughout the life of the contract. The submittal register and the progress schedules shall be coordinated.

3.3 SCHEDULING

Submittals covering component items forming a system or items that are interrelated shall be scheduled to be coordinated and submitted concurrently. Certifications to be submitted with the pertinent drawings shall be so scheduled. Adequate time (a minimum of [_____] calendar days exclusive of mailing time) shall be allowed and shown on the register for review and approval. No delay damages or time extensions will be allowed

for time lost in late submittals. An additional [] calendar days shall be allowed and shown on the register for review and approval of submittals for [food service equipment] [and] [refrigeration and HVAC control systems].

3.4 TRANSMITTAL FORM (ENG FORM 4025)

NOTE: ENG Form 4025 is not a part of this guide specification; the sample ENG Form 4025 must be added to this section locally.

The sample transmittal form (ENG Form 4025) attached to this section shall be used for submitting both Government approved and information only submittals in accordance with the instructions on the reverse side of the form. These forms will be furnished to the Contractor. This form shall be properly completed by filling out all the heading blank spaces and identifying each item submitted. Special care shall be exercised to ensure proper listing of the specification paragraph and/or sheet number of the contract drawings pertinent to the data submitted for each item.

3.5 SUBMITTAL PROCEDURE

Submittals shall be made as follows:

3.5.1 Procedures

NOTE: Add applicable procedures, including where to be submitted and number of copies required.

[]

3.5.2 Deviations

For submittals which include proposed deviations requested by the Contractor, the column "variation" of ENG Form 4025 shall be checked. The Contractor shall set forth in writing the reason for any deviations and annotate such deviations on the submittal. The Government reserves the right to rescind inadvertent approval of submittals containing unnoted deviations.

3.6 CONTROL OF SUBMITTALS

The Contractor shall carefully control his procurement operations to ensure that each individual submittal is made on or before the Contractor scheduled submittal date shown on the approved "Submittal Register."

3.7 GOVERNMENT APPROVED SUBMITTALS

Upon completion of review of submittals requiring Government approval, the submittals will be identified as having received approval by being so stamped and dated. [] copies of the submittal will be retained by the Contracting Officer and [] copies of the submittal will be returned to the Contractor.

3.8 INFORMATION ONLY SUBMITTALS

Normally submittals for information only will not be returned. Approval of the Contracting Officer is not required on information only submittals. The Government reserves the right to require the Contractor to resubmit any item found not to comply with the contract. This does not relieve the Contractor from the obligation to furnish material conforming to the plans and specifications; will not prevent the Contracting Officer from requiring removal and replacement of nonconforming material incorporated in the work; and does not relieve the Contractor of the requirement to furnish samples for testing by the Government laboratory or for check testing by the Government in those instances where the technical specifications so prescribe.

3.9 STAMPS

Stamps used by the Contractor on the submittal data to certify that the submittal meets contract requirements shall be similar to the following:

CONTRACTOR

(Firm Name)

_____ Approved

_____ Approved with corrections as noted on submittal data and/or
attached sheets(s).

SIGNATURE: _____

TITLE: _____

DATE: _____

-- End of Section --

RECOMMENDED CHANGES TO ENGINEERING DOCUMENTS

(Submit a separate form in quadruplicate for each report)

(ER 1110-345-100)

OFFICE SYMBOL AND DATE
CESPK-CO-C
JULY 28, 1997

DOCUMENT NUMBER AND DATE
CEGS 01451 (APR 97)

DOCUMENT TITLE
Contractor Quality Control

DOCUMENT TYPE

- DRAWING ((STANDARD) (DEFINITIVE)) SPECIFICATION ((GUIDE) (STANDARD))
 DESIGN GUIDES TECHNICAL MANUAL
 ENGINEER MANUAL ENGINEER REGULATION OTHER

- MILITARY
 CIVIL WORKS

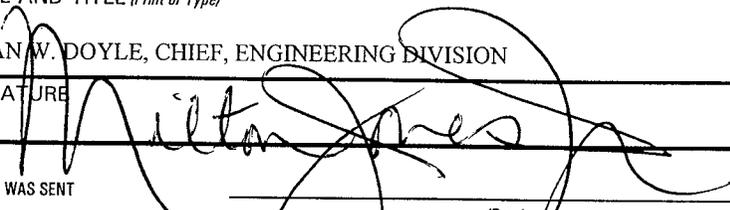
SUBJECT
Paragraph 3.4.4 Additional Requirements

ROUTING *(Check)*

ACTION RECOMMENDED BY DISTRICT COMMANDER

FROM:
District Commander
U.S. Army Engineer District,
Sacramento
CESPK-ED-M

(See Sheet 2)

OFFICE SYMBOL CESPK-ED	NAME AND TITLE <i>(Print or Type)</i> BRIAN W. DOYLE, CHIEF, ENGINEERING DIVISION
DATE 29 Jul 97	SIGNATURE 

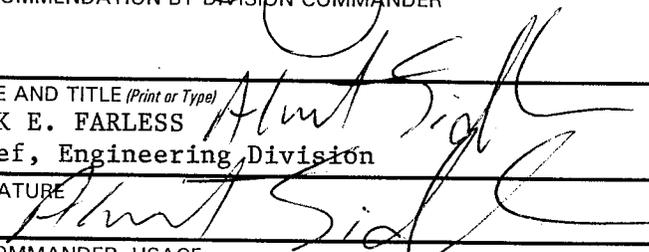
1a. TO:
HQUSACE (CEMP-EA)

INFORMATION COPY OF THIS ENG FORM 3078 WAS SENT

(Date)

1b. TO:
Division Commander
U.S. Army Engineer Division,
South Pacific
CESPD-ET

COMMENTS, ACTION, OR RECOMMENDATION BY DIVISION COMMANDER
RECOMMEND APPROVAL.

OFFICE SYMBOL CESPD-ET-E	NAME AND TITLE <i>(Print or Type)</i> JACK E. FARLESS Chief, Engineering Division
DATE 8/20/97	SIGNATURE 

2. TO:
HQUSACE (CEMP-EA)
WASH DC 20314-1000

COMMENTS OR ACTION BY COMMANDER, USACE

Concur. 

OFFICE SYMBOL CEMP-E	NAME AND TITLE <i>(Print or Type)</i> KISUK CHEUNG, P.E., C/ENGRG DIV., D/MP
DATE 9/10/97	SIGNATURE 

3. TO:
Division Commander
U.S. Army Engineer Division,
South Pacific
ATTN: CESPD-ET
333 Market Street
San Francisco, CA 94105

COMMENTS BY DIVISION COMMANDER

OFFICE SYMBOL	NAME AND TITLE <i>(Print or Type)</i>
DATE	SIGNATURE

4. RETURN TO:
District Commander
U.S. Army Engineer District,
Sacramento
CESPK-ED-M (ET&S)

COPY FURNISHED

RECOMMENDED CHANGES TO ENGINEERING DOCUMENTS (Cont'd)

OFFICE SYMBOL AND DATE

CESPK-CO-C

JULY 28, 1997

PROBLEM DESCRIPTION AND ACTION RECOMMENDED (Use additional sheets if necessary.)

1. PROBLEM:

Paragraph 3.4.4 Additional Requirement:

- a. Line 1 states: "In addition to the above experience and education requirements".
- b. This statement experience and education requirements, as written, indicates both experience and education are required.
- c. Paragraph 3.4.3 CQC Personnel: The experience matrix, Qualifications column for area a. through e., indicates a graduate with 2 years experience or a person with 5 years related experience.
- d. This statement in paragraph 3.4.4 requires both experience and education, which conflicts with paragraph 3.4.3, which allows education or experience.

2. RECOMMENDED SOLUTION:

Suggest changing word "and" to an option, "experience [and][and/or] education" in Paragraph 3.4.4 to resolve the wording conflict between paragraphs 3.4.3 and 3.4.4.

NAME OF SUBMITTER (Optional)

Ronald Goldsberry, CESPK-CO-C, thru Steve Freitas, Criteria Management Unit

WORK TELEPHONE NUMBER (Optional)

(916) 557-7296

RECOMMENDED CHANGES TO ENGINEERING DOCUMENTS <i>(Submit a separate form in quadruplicate for each report)</i> (ER 1110-345-100)		OFFICE SYMBOL AND DATE CESPCK-CO-C JUNE 30, 1997
DOCUMENT NUMBER AND DATE CEGS 02580 FEBRUARY 1991 NOTICE 9 MAY 1996	DOCUMENT TITLE PAVEMENT MARKINGS	
DOCUMENT TYPE <input type="checkbox"/> DRAWING ((STANDARD) (DEFINITIVE)) <input checked="" type="checkbox"/> SPECIFICATION ((GUIDE) (STANDARD)) <input type="checkbox"/> DESIGN GUIDES <input type="checkbox"/> TECHNICAL MANUAL <input type="checkbox"/> ENGINEER MANUAL <input type="checkbox"/> ENGINEER REGULATION <input type="checkbox"/> OTHER		<input checked="" type="checkbox"/> MILITARY <input type="checkbox"/> CIVIL WORKS
SUBJECT PARAGRAPH 2.1 PAINT		
ROUTING (Check) ←		ACTION RECOMMENDED BY DISTRICT COMMANDER <i>(See Sheet 2)</i>
FROM: District Commander U.S. Army Engineer District, Sacramento CESPCK-ED-M		OFFICE SYMBOL NAME AND TITLE (Print or Type) CESPCK-ED BRIAN W. DOYLE, CHIEF, ENGINEERING DIVISION
		DATE SIGNATURE 22 July 97 <i>[Signature]</i>
		INFORMATION COPY OF THIS ENG FORM 3078 WAS SENT <u>1 Jul 97</u> <i>(Date)</i>
1a. TO: Division Commander U.S. Army Engineer Division, South Pacific CESPDP-ET		COMMENTS, ACTION, OR RECOMMENDATION BY DIVISION COMMANDER <p style="text-align: center;">Approval Recommended</p>
		OFFICE SYMBOL NAME AND TITLE (Print or Type) CESPDP-ET-E JACK E. FARLESS, Chief, Engineering Division
		DATE SIGNATURE 31 July 97 <i>[Signature]</i>
2. TO: HQUSACE (CEMP-EA) WASH DC 20314-1000		COMMENTS OR ACTION BY COMMANDER, USACE Concur with revisions (see attached)
		OFFICE SYMBOL NAME AND TITLE (Print or Type) CEMP-ET Kisuk Cheung, P.E., C, Engr. Div., D/MP
		DATE SIGNATURE 10 Sep 97 <i>[Signature]</i>
3. TO: Division Commander U.S. Army Engineer Division, South Pacific ATTN: CESPDP-ET 333 Market Street San Francisco, CA 94105		COMMENTS BY DIVISION COMMANDER
		OFFICE SYMBOL NAME AND TITLE (Print or Type)
		DATE SIGNATURE
4. RETURN TO: District Commander U.S. Army Engineer District, Sacramento CESPCK-ED-M (ET&S)		COPY FURNISHED

RECOMMENDED CHANGES TO ENGINEERING DOCUMENTS (Cont'd)

OFFICE SYMBOL AND DATE
CESPK-CO-C
JUNE 30, 1997

PROBLEM DESCRIPTION AND ACTION RECOMMENDED (Use additional sheets if necessary.)

1. PROBLEM:

- 1.a. Paragraph 2.1 Paint: Sentence specifying "Paint for roads and streets shall conform to AASHTO M248" does not have the option FS TT-P-1952. This option is only listed for airfield use.
 - b. In the AASHTO M248-91 traffic paint specification, Paragraph 1 and Scope, references three types of traffic paint: Type S; Type N; & Type F.
 - c. Paragraph 3 of AASHTO M248-91, Classifications, indicates the primary solvent for Type S is VM & P Naphta; Type N is Toulene; and Type F is MEK. All of which are hazardous solvents.
 - d. In AASHTO M248-91, the characteristics Table 2B, indicates lead chromate. Table 3 indicates chlorinated rubber.
 - e. In AASHTO M248-91 Paragraph 7, Methods of Sampling and Testing, Note 2, indicates that the volatility of sovents used in Type F, extreme care must be taken when testing.
 - f. In AASHTO M248-91, Paragraph 1, Scope, Note indicated it is advisable to consult local air pollution regulations regarding solvents prior to selecting type (s) traffic paint to be used, therefore, AASHTO M248 may not meet a 250 grams per liter VOC requirement for traffic paint in California and areas where VOC is in effect.
2. Also there is no paragraph for lead and chromate use restriction.Paragraph 2.1 Paint:

2. RECOMMENDED SOLUTION:

1. A further review of AASHTO M248-91 traffic paint specification is suggested since some types contain lead chromate and chlorinated rubber pigments. Also the use of toxic and hazardous solvent carriers has the question of safety being a problem. The paint may not meet the allowable grams per liter of 250 in California and note that the VOC movement is advancing nation wide for emission limitations. Add an option of FS TT-P-1952 to Subpart 2.1 sentence "Paints for roads and streets shall conform to [AASHTO M248] [FS TT-P-1952]."
2. Add a new paragraph as follows:
 - 2.1.1 Lead Chromium

Paint containing lead in excess of 0.06 percent by weight of the nonvolatile content (calculated as lead metal) shall not be used. Paint containing chromate pigments shall not be used.

NAME OF SUBMITTER (Optional)

Ronald Goldsberry, CESPK-CO-C, thru Steve Freitas - Criteria Management Unit

WORK TELEPHONE NUMBER (Optional)

(916) 557-7296

Recommended Solution: Delete "AASHTO M 248" from CEGS-02580

1. Delete "AASHTO M 248" from paragraph 1.1 REFERENCES.
2. Paragraph 2.1 Paint, revise the second sentence to read "Paints for airfields, roads and streets shall conform to FS TT-P-1952, color as (indicated) (selected)."
3. Paragraph 2.1 Paint, delete the third sentence which starts "Paint for roads and streets ..."

RECOMMENDED CHANGES TO ENGINEERING DOCUMENTS

(Submit a separate form in quadruplicate for each report)

(ER 1110-345-100)

OFFICE SYMBOL AND DATE
CESPK-CO-C
JULY 22, 1997

DOCUMENT NUMBER AND DATE
TM 5-809-10
OCTOBER 1992

DOCUMENT TITLE
SEISMIC DESIGN FOR BUILDING

DOCUMENT TYPE

- DRAWING ((STANDARD) (DEFINITIVE)) SPECIFICATION ((GUIDE) (STANDARD))
 DESIGN GUIDES TECHNICAL MANUAL
 ENGINEER MANUAL ENGINEER REGULATION OTHER

- MILITARY
 CIVIL WORKS

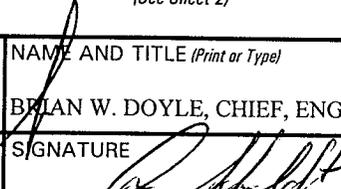
SUBJECT
CONTROL JOINTS (WCJ'S) IN CMU WALLS

ROUTING *(Check)*

FROM:
District Commander
U.S. Army Engineer District,
Sacramento
CESPK-ED-M

ACTION RECOMMENDED BY DISTRICT COMMANDER

(See Sheet 2)

OFFICE SYMBOL CESPK-ED	NAME AND TITLE <i>(Print or Type)</i> BRIAN W. DOYLE, CHIEF, ENGINEERING DIVISION
DATE 22 July 97	SIGNATURE 

1a. TO:
HQUSACE (CEMP-EA)

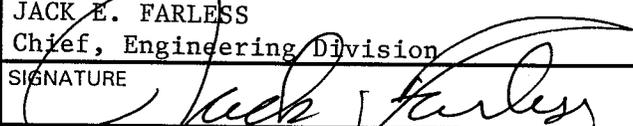
INFORMATION COPY OF THIS ENG FORM 3078 WAS SENT _____

(Date)

1b. TO:
Division Commander
U.S. Army Engineer Division,
South Pacific
CESPD-ET

COMMENTS, ACTION, OR RECOMMENDATION BY DIVISION COMMANDER

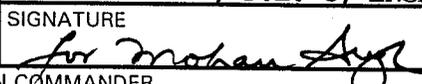
RECOMMEND APPROVAL.

OFFICE SYMBOL CESPD-ET-E	NAME AND TITLE <i>(Print or Type)</i> JACK E. FARLESS Chief, Engineering Division
DATE 5 Aug 97	SIGNATURE 

2. TO:
HQUSACE (CEMP-EA)
WASH DC 20314-1000

COMMENTS OR ACTION BY COMMANDER, USACE

Concur
See attached sheet.

OFFICE SYMBOL CEMP-E	NAME AND TITLE <i>(Print or Type)</i> KISUK CHEUNG, P.E. C, ENGR. DIV, D/MP
DATE 9/16/97	SIGNATURE 

3. TO:
Division Commander
U.S. Army Engineer Division,
South Pacific
ATTN: CESPD-ED
333 Market Street
San Francisco, CA 94105

COMMENTS BY DIVISION COMMANDER

OFFICE SYMBOL	NAME AND TITLE <i>(Print or Type)</i>
DATE	SIGNATURE

4. RETURN TO:
District Commander
U.S. Army Engineer District,
Sacramento
CESPK-ED-M (ET&S)

COPY FURNISHED

RECOMMENDED CHANGES TO ENGINEERING DOCUMENTS (Cont'd)

OFFICE SYMBOL AND DATE
CESPK-CO-C
JULY 22, 1997

PROBLEM DESCRIPTION AND ACTION RECOMMENDED (Use additional sheets if necessary.)

1. PROBLEM:

NOTE: This is a Tri-Service Document
TM 5-809-10
NAVFAC P-355
AFM 88-3, CH. 13

The need/requirement for the structural designer to provide wall control joints in CMU walls is not well defined.

6-9. Masonry shear walls, paragraph f. Control joints states:

(page 6-15)

Control joints may be required under the provisions of TM 5-809-10/AFM 88-3, Ch. 3.

2. RECOMMENDED SOLUTION:

Revise this statement to read as follows:

Control joints are required under the provisions of TM 5-809-3, Ch. 3.

NAME OF SUBMITTER (Optional)

Larry Crawley, CESPK-CO-C, thru Steve Freitas, Criteria Management Unit

WORK TELEPHONE NUMBER (Optional)

(916) 557-7296

Comment to subject 3078.

TM 5-809-10, "Seismic Design For Buildings" is currently being revised and will be issued as an EI. The comment concerning control joints in masonry walls will be incorporated in the EI. Publication of the new EI is planned for August 1998 time frame.

RECOMMENDED CHANGES TO ENGINEERING DOCUMENTS

(Submit a separate form in quadruplicate for each report)

(ER 1110-345-100)

OFFICE SYMBOL AND DATE
CEMP-CE

DOCUMENT NUMBER AND DATE
CEGS 15990 DATED APRIL 1997

DOCUMENT TITLE
TESTING ADJUSTING AND BALANCING (TAB) OF HVAC SYSTEMS

DOCUMENT TYPE

DRAWING ((STANDARD) (DEFINITIVE))

SPECIFICATION ((GUIDE) (STANDARD))

DESIGN GUIDES

TECHNICAL MANUAL

ENGINEER MANUAL

ENGINEER REGULATION

OTHER

MILITARY

CIVIL WORKS

SUBJECT
TAB FIRMS CERTIFICATION, QUALIFICATIONS AND AFFILIATION.

ROUTING (Check)

FROM:
District Commander
U.S. Army Engineer District,

*HQUSACE
CEMP-CE*

ACTION RECOMMENDED BY DISTRICT COMMANDER

(See Sheet 2)

OFFICE SYMBOL

NAME AND TITLE (Print or Type)

CEMP-CE

GARY G. BAUER, MECHANICAL ENGINEER

DATE
30 Jul 1997

SIGNATURE

Gary G. Bauer

1a.

TO:
HQUSACE (CEMP-EA)
WASH DC 20314-1000

INFORMATION COPY OF THIS ENG FORM 3078 WAS SENT

(Date)

1b.

TO:
Division Commander
U.S. Army Engineer Division,

COMMENTS, ACTION, OR RECOMMENDATION BY DIVISION COMMANDER

OFFICE SYMBOL

NAME AND TITLE (Print or Type)

CEMP-C

WILLIAM A. BROWN, SR., ACTING CHIEF, CONSTRUCTION DIV.

DATE

27 Aug 97

SIGNATURE

William A. Brown

2.

TO:
HQUSACE (CEMP-EA)
WASH DC 20314-1000

COMMENTS OR ACTION BY COMMANDER, USACE

Concur. See attached sheet.

OFFICE SYMBOL

NAME AND TITLE (Print or Type)

CEMP-E

KISLIK CHEUNG, P.E., C, ENGR. DIV. D/MP

DATE

SIGNATURE

for moham A...

3.

TO:
Division Commander
U.S. Army Engineer Division,

COMMENTS BY DIVISION COMMANDER

OFFICE SYMBOL

NAME AND TITLE (Print or Type)

DATE

SIGNATURE

4.

RETURN TO:
District Commander
U.S. Army Engineer District,

COPY FURNISHED

RECOMMENDED CHANGES TO ENGINEERING DOCUMENTS (Cont'd)

OFFICE SYMBOL AND DATE

CEMP-CE

30-JULY-1997

PROBLEM DESCRIPTION AND ACTION RECOMMENDED (Use additional sheets if necessary.)

1.

PROBLEM:

Presently the TAB contractor is a second tier contractor reporting to the mechanical sub-contractor. The specifications presently allow the TAB contractor to be affiliated with the mechanical contractor. To insure independence the TAB contractor should have no affiliation with any equipment manufacturer, design engineer, installing contractor, or any other party which might lead to a conflict of interest. By making the TAB contractor independent will allow construction and design deficiencies to be noted/surfaced during TAB that may prevent HVAC systems from performing satisfactory. It is in the best interest of the Government to require the TAB contractor to be a independent first tier sub-contractor. The Department of The Navy HVAC TAB specification, NFGS-15950B, requires the TAB contractor to be a first tier sub-contractor.

2.

RECOMMENDED SOLUTION:

Add the following requirements to CEGS 15990 paragraph 1.2 SD-08 under TAB Firm;
 "For TAB agency proposed for approval, submit information certifying that: The TAB agency is a first tier subcontractor who is not affiliated with any other company participating in work on this contract; the work to be performed by the TAB agency shall be limited to testing, adjusting and balancing of HVAC air and water systems to satisfy the requirements of this specification section."

NAME OF SUBMITTER (Optional)

Gary G. Bauer

WORK TELEPHONE NUMBER (Optional)

(202) 761-0204

Concur. But a better paragraph for this restriction on the TAB contractor is in paragraph 1.5.1 TAB Firm which is under section 1.5 QUALIFICATIONS. The following two sentences shall be added to the end of paragraph 1.5.1: "These TAB services are to assist the prime contractor in performing the quality control oversight for which it is responsible under the contract. The TAB firm shall be a subcontractor of the prime contractor and shall report to and be paid directly by the prime contractor."

RECOMMENDED CHANGES TO ENGINEERING DOCUMENTS <i>(Submit a separate form in quadruplicate for each report)</i> <i>(ER 1110-345-100)</i>		OFFICE SYMBOL AND DATE
DOCUMENT NUMBER AND DATE CEGS 15330 Feb 1997	DOCUMENT TITLE Wet Pipe Sprinkler System, Fire Protection	CEMRO-CD 21 Feb 97
DOCUMENT TYPE <input type="checkbox"/> DRAWING ((STANDARD) (DEFINITIVE)) <input checked="" type="checkbox"/> SPECIFICATION ((GUIDE) (STANDARD)) <input type="checkbox"/> DESIGN GUIDES <input type="checkbox"/> TECHNICAL MANUAL <input type="checkbox"/> ENGINEER MANUAL <input type="checkbox"/> ENGINEER REGULATION <input type="checkbox"/> OTHER		<input type="checkbox"/> MILITARY <input type="checkbox"/> CIVIL WORKS
SUBJECT Sterilization and Flushing Requirements, Paragraph 3.6		
ROUTING <i>(Check)</i> FROM: CEMRO-CD-QM District Commander U.S. Army Engineer District, 215 No. 17th St. Omaha, NE 68102-4978	ACTION RECOMMENDED BY DISTRICT COMMANDER <i>(See Sheet 2)</i>	
	OFFICE SYMBOL CEMRO-CD	NAME AND TITLE <i>(Print or Type)</i> NEIL R. BRUNSON, P.E., Chief, Construction Division
	DATE 2/24/97	SIGNATURE <i>Neil R. Brunson</i>
1a. TO: HQUSACE (CEMP-EA) WASH DC 20314-1000	INFORMATION COPY OF THIS ENG FORM 3078 WAS SENT _____ <i>(Date)</i>	
1b. TO: CEMRD-ET-C Division Commander U.S. Army Engineer Division, Missouri River Division P.O. Box 103 DTS Omaha, NE 68101-0103	COMMENTS, ACTION, OR RECOMMENDATION BY DIVISION COMMANDER <i>Recommend approval.</i>	
	OFFICE SYMBOL CEMRD-ET-C	NAME AND TITLE <i>(Print or Type)</i> Eric Anthony Arndt, Const. Proj. Mgr.
	DATE 15 Sept 1997	SIGNATURE <i>Eric Arndt</i>
2. TO: CEMP-EA HQUSACE (CEMP-EA) WASH DC 20314-1000	COMMENTS OR ACTION BY COMMANDER, USACE Concur. See attached sheet.	
	OFFICE SYMBOL CEMP-E	NAME AND TITLE <i>(Print or Type)</i> KISUK CHEUNG, P.E. C, ENGR. DIV D/MP
	DATE	SIGNATURE <i>Kisuk Cheung</i>
3. TO: CEMRD-ET-C Division Commander U.S. Army Engineer Division, Missouri River Division P.O. Box 103 DTS Omaha, NE 68101-0103	COMMENTS BY DIVISION COMMANDER	
	OFFICE SYMBOL	NAME AND TITLE <i>(Print or Type)</i>
	DATE	SIGNATURE
4. RETURN TO: CEMRO-CD-QM District Commander U.S. Army Engineer District, 215 No. 17th St. Omaha, NE 68102-4978	COPY FURNISHED	

RECOMMENDED CHANGES TO ENGINEERING DOCUMENTS (*Cont'd*)OFFICE SYMBOL AND DATE
CEMRO-CD
21 Feb 97PROBLEM DESCRIPTION AND ACTION RECOMMENDED (*Use additional sheets if necessary.*)

1. PROBLEM:

Reference: OCE CEGS-15330 (June 1994) WET PIPE SPRINKLER SYSTEM, FIRE PROTECTION

Subject: Paragraph 3.6 STERILIZATION

1. The second sentence in the note to the designer states: "If water supply is obtained from other than a potable source or the sprinkler piping is isolated from the domestic piping, the entire paragraph should be deleted."

PROBLEM: Does the installation of a double check valve backflow prevention assembly constitute "isolation from the domestic piping?" Some designers say yes to this question, while some believe this requirement can only be satisfied with the installation of a "reduced pressure backflow prevention device." (Note that only a "double-check valve backflow prevention assembly" is specified in Section 15330.) Per the National Standard Plumbing Code, the use of either a "double-check" or a "reduced pressure" backflow preventer is based on the hazard classification of the system, i.e., low or high hazard. A wet sprinkler system is considered low hazard, i.e., requiring only a "double-check" backflow preventer.

2. The second sentence of paragraph 3.6 states: "After pressure tests have been made, the portion to be sterilized shall be thoroughly flushed with water until all entrained dirt and other foreign materials have been removed before introducing chlorinating material."

PROBLEM: The definition of "thoroughly flushed" is different with contractors, i.e., some believe filling and draining satisfies this requirement; some believe only the mains need to be flushed. The definition of "thoroughly flushed" should be clarified, and the clarification should consider that the purpose of paragraph 3.6 is to disinfect the sprinkler system rather than to remove obstructions in the piping. Note that NFPA 13 does not require flushing or sterilization of aboveground sprinkler piping.

2. RECOMMENDED SOLUTION:

PROBLEM 1: Revise the second sentence in the note to the designer to read: "If water supply is obtained from other than a potable source or the sprinkler piping is isolated from the domestic water piping by means of a double-check valve or reduced pressure backflow prevention assembly, the entire paragraph should be deleted."

PROBLEM 2: Revise the second sentence of paragraph 3.6 to read: After hydrostatic pressure tests have been made, the portion to be sterilized shall be drained and then refilled with water and the chlorinating material."

NAME OF SUBMITTER (*Optional*)

Edward Texel, Chief Technical Section, Rocky Mountain Area

WORK TELEPHONE NUMBER (*Optional*)

(719) 574-0441, ext. 106

CEMP-ET

25 September 1997

SUBJECT: 3078 initiated by CEMRO-CD, 21 Feb 1997; CEGS 15330 WET PIPE SPRINKLER SYSTEM, FIRE PROTECTION

1. The following are comments on the problems stated in the subject 3078 with respect to Paragraph 3.6, *STERILIZATION*:

a. Problem 1, Concur. The technical note to the designer should be revised to clarify the type of backflow preventer necessary to have the condition that "sprinkler piping is isolated from the domestic piping." However, a double-check valve backflow preventer, as recommended by the subject 3078, does not provide bacteriological isolation of the sprinkler piping from the potable water supply piping. Sprinkler piping that is not sterilized would be considered "high hazard" and would require by the National Standard Plumbing Code, a reduced-pressure backflow preventer or equivalent. The guide specifications specify for sprinkler connections to a potable water supply, a double check valve backflow preventer assembly and sterilization of the piping. It does not specify a reduced-pressure backflow preventer due to the high pressure losses associated with reduced pressure backflow preventers. Most sprinkler systems equipped with a reduced pressure backflow preventer require a costly fire pump installation which reduces the reliability of the system and therefore compromises the safety of the occupants.

SOLUTION: Revise the second sentence in the NOTE for Paragraph 3.6 *STERILIZATION* to:

"If sprinkler piping is isolated from the domestic water piping systems by means of a reduced pressure backflow prevention assembly or if sprinkler piping is not connected to the domestic water piping, the entire paragraph should be deleted."

b. Problem 2, Concur that the flushing requirement of the specification needs to be clarified and that flushing is not required by NFPA 13. However, flushing prior to sterilization is required by the National Standard Plumbing Code and can not be eliminated from the specifications.

SOLUTION: Revise the second sentence of Paragraph 3.6 *STERILIZATION* to:

"After hydrostatic pressure tests have been conducted, the portion of the sprinkler system to be sterilized shall be thoroughly flushed with potable water until all entrained dirt and other foreign materials have been removed before introducing chlorinating material. Flushing shall be conducted by removing the flushing fitting of the cross mains and of the grid branch lines, and then back-flushing through the sprinkler main drains."

2. Action: CEGS 15330 will be modified by notice to incorporate approved changes. In addition, CEGS 15331, CEGS 15332 and CEGS 15320 which have similar provisions on sterilization will also be revised by notice change.

RECOMMENDED CHANGES TO ENGINEERING DOCUMENTS

(Submit a separate form in quadruplicate for each report)

(ER 1110-345-100)

OFFICE SYMBOL AND DATE

CENWS-EN-DB-SR
25 July 1997

DOCUMENT NUMBER AND DATE

Section 08810 (Feb 96)

DOCUMENT TITLE

Glass and Glazing

DOCUMENT TYPE

DRAWING ((STANDARD) (DEFINITIVE))

SPECIFICATION ((GUIDE) (STANDARD))

MILITARY

DESIGN GUIDES

TECHNICAL MANUAL

CIVIL WORKS

ENGINEER MANUAL

ENGINEER REGULATION

OTHER

SUBJECT

Glass Spacers

ROUTING *(Check)*

FROM:

District Commander
U.S. Army Engineer District,
Seattle

ACTION RECOMMENDED BY DISTRICT COMMANDER

(See Sheet 2)

OFFICE SYMBOL

CENWS-EN

DATE

8/1/97

NAME AND TITLE *(Print or Type)*

P.M. O'Dell, P.E., Chief, Engineering Division

SIGNATURE

for P.M. O'Dell

1a.

TO:
HQUSACE (CEMP-EA)
WASH DC 20314-1000

INFORMATION COPY OF THIS ENG FORM 3078 WAS SENT

8/4/97

(Date)

1b.

TO:
Division Commander
U.S. Army Engineer Division,
Northwestern

COMMENTS, ACTION, OR RECOMMENDATION BY DIVISION COMMANDER

CONCUR W/RECOMMENDATION. SPECIFICATION SHOULD MAKE CLEAR SPACER CORNER REQMTS, I.E. "BENT" OR "WELDED"

OFFICE SYMBOL

CENWD-ET-E

DATE

9/15/97

NAME AND TITLE *(Print or Type)* (SEE GREEN TABS)

DAVID N. KELLER, CHIEF, ENGINEERING

SIGNATURE

David N. Keller

2.

TO: ←
HQUSACE (CEMP-EA)
WASH DC 20314-1000

COMMENTS OR ACTION BY COMMANDER, USACE

CONCUR W/RECOMMENDATION ~~W/~~ CEMP-EA

OFFICE SYMBOL

CEMP-E

DATE

10/03/97

NAME AND TITLE *(Print or Type)*

KISUK CHEUNG, P.E., C/ENGRG DIV, MP

SIGNATURE

Kisuk Cheung

3.

TO:
Division Commander
U.S. Army Engineer Division,

COMMENTS BY DIVISION COMMANDER

OFFICE SYMBOL

DATE

NAME AND TITLE *(Print or Type)*

SIGNATURE

4.

RETURN TO:
District Commander
U.S. Army Engineer District,

COPY FURNISHED

RECOMMENDED CHANGES TO ENGINEERING DOCUMENTS (Cont'd)

OFFICE SYMBOL AND DATE

CENWS-CO-FL

PROBLEM DESCRIPTION AND ACTION RECOMMENDED (Use additional sheets if necessary)

1. PROBLEM:

Specification CEGS 08810 limits preassembled units of insulating glass to be separated by an aluminum spacer only. Better performance can be achieved with the use of a steel or stainless steel spacer.

2. RECOMMENDED SOLUTION:

Broaden specification to include steel and stainless steel spacers of the configuration shown in the attached literature.

NAME OF SUBMITTER (Optional)

Kenneth L. Forbes

WORK TELEPHONE NUMBER (Optional)

(206) 964-2969 ext 112

CURRENT DESIGN CRITERIA

Recently Issued Criteria:

a. Problem: There have been instances where current design criteria were not used in project designs because recently issued Engineering and Design documents were placed in a central office file and were not distributed to design personnel who need to be aware of the current criteria and guidance.

b. Probable Solution: From all reports, EIRS Bulletins are widely circulated within Engineering Division of USACE Commands and are readily accessible to all engineering and design personnel. This enclosure includes a listing of recently issued criteria.

Engineering and Design criteria for Civil Works and Military Programs are distributed by the "Construction criteria Base (CCB)" System, National Institute of Building Sciences (NIBS). CCB is available in CD-ROM format and is on the CCB web site at "<http://www.nibs.org/ccb>". Information about subscribing to CCB may be obtained by calling NIBS at (202) 289-7800. Current Military Programs Engineering and design criteria are also available on our TECHINFO web site at "<http://www.hnd.usace.army.mil/techinfo/index.htm>". For further information on TECHINFO, call the Huntsville Engineering and Support Center, CEHND-ED-ES-G, at (205) 895-1821 between 8:00 a.m. and 4:00 p.m., Central Time.

PUBLICATION LIST

<u>PUB-NO.</u>	<u>PUBLICATION</u>	<u>PUB-DATE</u>
ER 1180-1-9	Contracting - Design-Build Contracting	Oct 97
ETL 1110-3-486	Army Airfield/Heliport Pavement Design	Nov 97