



US Army Corps
of Engineers ®

EIRS Bulletin

Engineering Improvement Recommendation System

No. 97-06

Date: 25 August 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 4 enclosures as follows:

ENCL 1: ENGINEERING AND DESIGN - Fire Protection Engineering Criteria

ENCL 2: ENGINEERING AND DESIGN - Army Aviation Facilities Criteria Update

ENCL 3: RECOMMENDED CHANGES TO ENGINEERING DOCUMENTS - ENG Form 3078 Follow-up Actions

ENCL 4: ENGINEERING AND DESIGN - CURRENT DESIGN CRITERIA - Recently Issued Criteria

FOR THE COMMANDER:

4 Encls


KISUK CHEUNG, P.E.
Chief, Engineering Division
Directorate of Military Programs

ENGINEERING AND DESIGN

Fire Protection Engineering Criteria:

a. Problem: Military Handbook (MIL-HDBK) 1008C, *Fire Protection For Facilities Engineering, Design and Construction*, 10 June 1997, has recently been issued and will supersede Military Handbook 1008B. MIL-HDBK 1008C is tri-service criteria and applies to all DoD facilities.

b. Probable Solution: Military Handbook 1008C will be implemented as "routine" application, as defined by Paragraph 8c of ER 1110-345-100. Any Army project that has not reached the 35% design completion will incorporate the requirements of the new handbook. Any reference to MIL-HDBK 1008B in our criteria will be replaced by MIL-HDBK 1008C. The new handbook is available on TECHINFO and should be available on the next edition of the CCB.

Encl 1

ENGINEERING AND DESIGN

Army Aviation Facilities Criteria Update:

a. Problem: The tri-service technical manual, TM 5-803-7, entitled Airfield and Heliport Planning and Design, has been updated and consolidated with TM 5-803-4 into a single TM. Projected publication and distribution is scheduled for Fall of 1997. Army unique criteria has been incorporated as an Attachment to Appendix K of the Architectural and Engineering Instructions (AEI), Design Criteria. TM 5-803-7 will not be published before the revised edition of our AEI is issued in July 1997.

b. Probable Solution: The revised AEI, Design Criteria, will include reference to the TM 5-803-7 without specific publication date. The final draft of TM 5-803-7, dated 20 November 1996, can be used in the interim until the official document is published/distributed. Also, we plan to include additional information about the aircraft maintenance hangar, hangar shops and their utility requirements, and idealized layouts of unit and intermediate maintenance hangars in Appendix K to the revised AEI. The added information will be a valuable guide for planners and designers in absence of a complete standard design package for aviation hangars as organizations will continue to undergo significant change and modernized aircraft with new support requirements will continue to be fielded under the Army's Force XXI Initiative over the next 7 years.

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

d. Additional Information: For additional information on Army aviation facilities contact Mr. Gordon Velasco, CEMP-EA, telephone number (202) 761-8817, facsimile (202) 761-8815

RECOMMENDED CHANGES TO ENGINEERING DOCUMENTS

ENG Form 3078 Follow-up Actions:

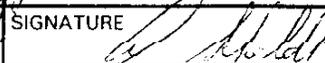
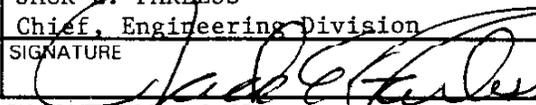
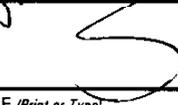
- a. Problem: ENG Forms 3078 which indicate an affirmative action by HQUSACE are provided to the originating USACE Commands. Since the ENG Forms 3078 will result in changes to the criteria and guidance, all USACE Commands should receive the same information to be used in criteria designs.

- 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 ENG Form 3078.

Encl 4 (25 pages)

ENG FORMS 3078

<u>CONTROL NO.</u>	<u>PUB NO.</u>	<u>OFFICE SYMBOL</u>
9082	CEGS-07250	CESPK-CO-C
9085	CEGS-02535	CEMRK-EP-DA
9086	CEGS-16375	CESAS-EN-DE
9088	CEGS-11242	CESPK-CO-C
9095	CEGS-11500	CESPK-ED-M
9098	CEGS-13814	CESPK-ED-M
9099	CEGS-14210	CESPK-ED-M
1000	CEGS-15330	CESPK-ED-M

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 CESPK-CO-C 13 MAY 1997
DOCUMENT NUMBER AND DATE EGS 07250 (January 1994)	DOCUMENT TITLE Spray Applied Fireproofing	
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 Subpart 2.1 Spray -Applied Fireproofing		
ROUTING <i>(Check)</i>		ACTION RECOMMENDED BY DISTRICT COMMANDER <i>(See Sheet 2)</i>
FROM: District Commander U.S. Army Engineer District, Sacramento CESPK-ED-M		OFFICE SYMBOL CESPK-ED
		NAME AND TITLE <i>(Print or Type)</i> BRIAN W. DOYLE, CHIEF, ENGINEERING DIVISION
		DATE 13 May 97
		SIGNATURE 
1a. TO: HOSACE (CEMP-EA)	INFORMATION COPY OF THIS ENG FORM 3078 WAS SENT 13 May 97 <i>(Date)</i>	
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 27 May 97
		SIGNATURE 
2. TO: HOSACE (CEMP-EA) WASH DC 20314-1000	COMMENTS OR ACTION BY COMMANDER, USACE See attached sheet.	
		OFFICE SYMBOL CEMP-EA
		NAME AND TITLE <i>(Print or Type)</i> KISUK CHEUNG, P.E., C, ENGR DIVD/MP
		DATE 24 May 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 CESPK-CO-C (RONALD GOLDSBERRY) CESPK-ED-M (ARCHITECTURAL)	

RECOMMENDED CHANGES TO ENGINEERING DOCUMENTS (Cont'd)

OFFICE SYMBOL AND DATE
CESPK-CO-C

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

1. PROBLEM:

- a. EIRS Bulletin 90-03 identified a problem in CEGS-07265 (now 07250), Spray-Applied Fireproofing (Sept 1985) which permitted use of either Type I (cemetitious) or Type II (fibrous) materials conforming to ASTM E 1042.
- b. The problem indicated that "there was a significant health concern with the use of Type II materials. In addition, as compared to Type I materials, the air erosion, and can not be patched by troweling. Type II materials ordinarily are less expensive than Type I only when they can be used without sealing to reduce air erosion and the associated health risk."
- c. A probable solution was addresssed in the EIRS Bulletin 90-03 which stated "A revision of CEGS-07265 is in the progress and will not include the option for the use of Type II materials".
- d. CEGS-07265 September (1985) was changed to 07250, the latest revision being "Jan 1994, T-Mar 95, N1 May 95".
- e. Paragraph 2.1 still specifies an option to use "either Type I or Type II" materials.
- f. ASTM E 1042-92 specifies "dust shall not exceed 0.025 grams/ft2. CEGS-07250. Paragraph 2.1, Line 4 specifies "(0.0025 gram per square foot)". This is greater than that specified in the ASTM; please verify which is correct.

2. RECOMMENDED SOLUTION:

Suggest revising Paragraph 2.1 as follows:

Spray-applied fireproofing material, including sealer, shall conform to ASTM E 1042, Class (a), Category A, Type I. The dust removed shall not exceed 0.27 gram per square meter (0.025 gram per square foot) of fireproofing material applied as specified in the project. Material shall be asbestos free, and shall resist fungus for a period of 28 days when tested in accordance with ASTM G 21.

NAME OF SUBMITTER (Optional)
Ronald Goldsberry, CESPK-CO-C, thru Steve Freitas - Criteria Management Unit

WORK TELEPHONE NUMBER (Optional)
(916) 557-7296

CEMP-ET

17 June 1997

SUBJECT: 3078 initiated by CESP-K-CO-C, 13 May 1997; CEGS 07250, SPRAY-APPLIED FIREPROOFING

1. Spray-applied fireproofing is thermal insulating material spray-applied to structural steel components of a building to provide fire resistance, as required by code. Type I spray-applied fireproofing is cementitious. Type II is composed of mineral fibers. The following are comments applicable to the problem description listed in the subject 3078:

a. Problem Description a: EIRS Bulletin 90-03 referenced by the 3078 has been superseded by CEGS 07250 and other criteria, i.e. Military Handbook 1008B, *Fire Protection For Facilities*. In addition, the Type I (cementitious) fireproofing which has undergone changes in composition due to traces of asbestos is no longer considered superior to Type II fibrous fireproofing, as long as the quality assurance measures specified in CEGS 07250 are enforced. CEGS 07250 which allows both Type I and Type II spray-applied fireproofing is correct and will continue to allow both types of fireproofing.

b. Problem Description b: The health concerns expressed by EIRS Bulletin 90-03 was based on the health concerns of mineral fibers of which Type II fireproofing was composed. It was later determined that the health concerns of the Type II fireproofing were not significant and did not warrant exclusion of Type II fireproofing from our guide specifications and projects. In addition, Military Handbook 1008A, which only allowed Type I fireproofing at the time of issuance of EIRS Bulletin 90-03, was superseded by Military Handbook 1008B which is current and has no restriction on the type of spray-applied fireproofing.

c. Problem Description c: Type II (fibrous) spray applied fireproofing should not be excluded from our project, since health concerns of Type II fireproofing are not considered significant to warranted its exclusion.

d. Problem Description d: See comments a, b and c above.

e. Problem Description e: See comments a, b and c above.

f. Problem Description f: The requirement of CEGS 07250 that dust removed shall not exceed 0.0025 grams per square foot is correct. Any of the reputable manufacturer of spray-applied fireproofing can meet this requirement, especially with the required application of sealant.

2. ACTION. A new EIRS Bulletin will be issued to address the problem raised by this 3078.

9082

Jun-02-97 04:00P a

RECOMMENDED CHANGES TO ENGINEERING DOCUMENTS (Submit a separate form in quadruplicate for each report) (ER 1110-345-100) -		OFFICE SYMBOL AND DATE
<input checked="" type="checkbox"/> NUMBER AND DATE XGS-U2535 11/94	DOCUMENT TITLE Playground Safety Surfacing	CEMRK-EP-DA 25 November 1996
DOCUMENT TYPE <input checked="" 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 Playground Safety Surfacing		
ROUTING (Check)		ACTION RECOMMENDED BY DISTRICT COMMANDER (See Sheet 2)
FROM: CEMRK-EP District Commander U.S. Army Engineer District, Kansas City 610 E. 12th Street Kansas City, MO 64106		OFFICE SYMBOL CEMRK-EP
		NAME AND TITLE (Print or Type) HARRY F. BEYER, JR. Chief, Engineering and Planning Division
		DATE 11/29/96
		SIGNATURE <i>Harry F. Beyer</i>
TO: HOUSACE (CEMP-EA) WASH DC 20314-1000		INFORMATION COPY OF THIS ENG FORM 3078 WAS SENT <u>12 DEC 1996</u> (Date)
TO: CEMRD-ET-E Division Commander U.S. Army Engineer Division, Missouri River Div. 12565 W. Center Road Omaha, NE 68144-3869		COMMENTS, ACTION, OR RECOMMENDATION BY DIVISION COMMANDER See attached comments.
		OFFICE SYMBOL CEMRD-ET
		NAME AND TITLE (Print or Type) KRISTINE L. ALLAMAN, P.E. Director, Engineering & Tech Services
		DATE 26 Dec 97
		SIGNATURE <i>Kristine L. Allaman</i>
TO: CEMP-EA HOUSACE (CEMP-EA) WASH DC 20314-1000		COMMENTS OR ACTION BY COMMANDER, USACE See Attached Comments by CEMP-EA.
		OFFICE SYMBOL CEMP-E
		NAME AND TITLE (Print or Type) Kisuk Cheung, P.E.C., Engineering Division, DIMP
		DATE 07/29/97
		SIGNATURE <i>Kisuk Cheung</i>
TO: CEMRD-ET-E Division Commander U.S. Army Engineer Division, Missouri River Div. 12565 W. Center Road Omaha, NE 68144-3869		COMMENTS BY DIVISION COMMANDER
		OFFICE SYMBOL
		NAME AND TITLE (Print or Type)
		DATE
		SIGNATURE
RETURN TO: CEMRK-EP District Commander U.S. Army Engineer District, Kansas City 610 E. 12th Street Kansas City, MO 64106		COPY FURNISHED

RECOMMENDED CHANGES TO ENGINEERING DOCUMENTS (Cont'd)

OFFICE SYMBOL AND DATE
CEMRD-ET-E
18 Jun 97

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

1. PROBLEM:

PROBLEM c. Under paragraph 2.2, SYNTHETIC SURFACING there are four paragraphs of notes. The fourth note paragraph mentions that, "If an impervious system is selected, coordinate drainage requirements." By mentioning drainage only with impervious surfaces it implies that it is not a problem for porous surfaces. As the Fort Leavenworth playground has shown, a porous play surface with ground below and surrounding it that is less porous will only cause the play surface area to hold water like a sponge that has not place to drain to.

PROBLEM d. Under paragraph 2.3 SAND, recommend switching to much finer sand than currently listed. This would eliminate the overlap between sand and gravel.

2. RECOMMENDED SOLUTION:

PROBLEM c:

ADD: Under paragraph 2.2, SYNTHETIC SURFACING, change the first paragraph of the NOTE to add a second sentence. (Different type and bold used to show new.)

NOTE: The designer will select the surfacing system most appropriate for the climate and character of the installation. *To insure drainage, design a minimum 2% slope and verify that water is not dammed at perimeters.*

DELETE: Under paragraph 2.2, SYNTHETIC SURFACING, change the fourth paragraph of the NOTE to delete the second sentence. (Sentence to delete shown in italics.)

Combination systems should only be used in areas of low activity level, for example, in infant areas, or where low number of users are expected. *If an impervious system is selected, coordinate drainage requirements.* In hot, desert-like environments, do not select systems with SBR or dark colored wear surfaces.

NAME OF SUBMITTER (Optional)

Steven P. Rumbaugh

WORK TELEPHONE NUMBER (Optional)

(402) 697-2645

RECOMMENDED CHANGES TO ENGINEERING DOCUMENTS (Cont'd)

OFFICE SYMBOL AND DATE
CEMRD-ET-E
18 Jun 97

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

1. PROBLEM:

2. RECOMMENDED SOLUTION:

PROBLEM d:

Recommend deleting tables for sieve sizes given under paragraph 2.3 for sand in metric and inch-pounds and substituting the following tables:

SIEVE SIZE	PERCENT PASSING
2.4 mm	95-100 percent
1.2 mm	70-95 percent
0.6 mm	50-80 percent
0.3 mm	25-50 percent
0.15 mm	0-10 percent
0.075 mm	less than 2 percent

SIEVE SIZE	PERCENT PASSING
#8	95-100 percent
#16	70-95 percent
#30	50-80 percent
#50	25-50 percent
#100	0-10 percent
#200	less than 2 percent

NAME OF SUBMITTER (Optional)

Steven P. Rumbaugh

WORK TELEPHONE NUMBER (Optional)

(402) 697-2645

CEMP-EA

SUBJECT: Recommended Changes to Engineering Documents, ENG Form 3078, CEMP-E Case Number 9085

1. Reference: CEMRK-EP-DA, ENG Form 3078 dated 25 Nov 96, subject: CEGS 02535.
2. Response to recommended solution to problem 1c: Concur. The CDC Standard Design Package is programmed for update in 4th quarter FY97. The drainage issue will be clarified on the drawings and in the details. Also, CEGS 02535 & 02860 are being updated and clarification of drainage will be accommodated.
3. Response to recommended solution to problem 1d: Nonconcur. The sieve sizes recommended by CEMRK provide play value but fail fall attenuation requirements. Fine sand compacts to become hard as concrete. When moisture such as rainfall passes through the sand, the moisture removes the air pockets between sand particles; thus, causing the sand to compact. The sieve sizes provided in the CEGS have been given the head form test by an independent lab and remain the recommended sieve sizes for fall attenuation. Other sieve sizes will require testing to ensure meeting the ASTM F1292 head injury criteria (HIC) impact attenuation requirements. The CDC standard design drawings will provide clarification of the importance of sieve sizes of sand for meeting fall attenuation.

RECOMMENDED CHANGES TO ENGINEERING DOCUMENTS

(Submit a separate form in quadruplicate for each report)

(ER 1110-345-710, 720 and ER 1110-2-1200)

JWR 4/28/97
CESAS-EN-DE
17 Apr 97

DOCUMENT NUMBER AND DATE
GS 16375

DOCUMENT TITLE
**ELECTRICAL DISTRIBUTION SYSTEM,
UNDERGROUND**

DOCUMENT TYPE

DRAWING ((STANDARD) [DEFINITIVE]) SPECIFICATION ((GUIDE) [STANDARD])

DESIGN GUIDES ARCHITECT-ENGINEER INSTRUCTION MANUAL

ENGINEER MANUAL ENGINEER REGULATION OTHER

MILITARY

CIVIL WORKS

SUBJECT
CONDUCTOR MATERIAL

ROUTING (Check)

FROM:
District Commander
U.S. Army Engineer District,
ATTN: CESAS-EN
P.O. Box 889
Savannah, GA 31402-0889

ACTION RECOMMENDED BY DISTRICT COMMANDER
(See Sheet 2)

OFFICE SYMBOL CESAS-EN	NAME AND TITLE (Print or Type) JOSEPH H ROGERS
DATE <i>30 Apr 97</i>	SIGNATURE <i>JHRogers</i>

1a. TO:
HOUSACE (CEEC-ES)
WASH DC 20314-1000

INFORMATION COPY OF THIS ENG FORM 3078 WAS SENT **MAY 08 1997**
(Date)

1b. TO:
Division Commander
U.S. Army Engineer Division,
ATTN: CESAD-ET-EE
Forsyth St, SW
Atlanta, GA 30335-6807

COMMENTS, ACTION, OR RECOMMENDATION BY DIVISION COMMANDER
CONCUR

OFFICE SYMBOL CESAD-ET-EE	NAME AND TITLE (Print or Type) Johnny M. Baggette
DATE <i>16 MAY 97</i>	SIGNATURE <i>Johnny M. Baggette</i>

2. TO: **CEMP-ET**
HOUSACE (CEEC-ES)
WASH DC 20314-1000

COMMENTS OR ACTION BY CHIEF OF ENGINEERS
Concur.

OFFICE SYMBOL CEMP-E	NAME AND TITLE (Print or Type) KISUK CHEUNG, P.E. C, ENGR. DIV, D/MP
DATE <i>24 Jun 97</i>	SIGNATURE <i>Kisuk Cheung</i>

3. TO:
Division Commander
U.S. Army Engineer Division,
ATTN: CESAD-ET-EE

COMMENTS BY DIVISION COMMANDER

OFFICE SYMBOL	NAME AND TITLE (Print or Type)
DATE	SIGNATURE

4. RETURN TO:
District Commander
U.S. Army Engineer District,
ATTN: CESAS-EN-DE

COPY FURNISHED

CESAS-EN-DE
17 Apr 97

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

PROBLEM

Specifications Paragraph 2.4.1, Conductor Material, contains a reference selection for "aluminum alloy 5005." This alloy is obsolete.

2 RECOMMENDED SOLUTION:

Delete reference to aluminum alloy "5005" and add reference selection for aluminum alloy "1350".

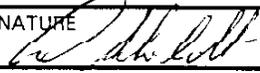
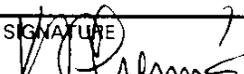
OF SUBMITTER (Optional)

BENNIE G WILLIAMS



WORK TELEPHONE NUMBER (Optional)

(912) 652-5613

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 15 MAY 1997
DOCUMENT NUMBER AND DATE GS 11242 (OCTOBER 1995) NOTICE 1 DECEMBER 1995	DOCUMENT TITLE CHEMICAL FEED SYSTEMS	
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 "GA" CONTRACTOR SUBMITTALS		
ROUTING (Check) FROM: District Commander U.S. Army Engineer District, Sacramento CESPCK-ED-M	ACTION RECOMMENDED BY DISTRICT COMMANDER <i>(See Sheet 2)</i>	
	OFFICE SYMBOL CESPCK-ED	NAME AND TITLE (Print or Type) BRIAN W. DOYLE, CHIEF, ENGINEERING DIVISION
	DATE 15 May 97	SIGNATURE 
1a. TO: HQUSACE (CEMP-EA)	INFORMATION COPY OF THIS ENG FORM 3078 WAS SENT <u>15 May 97</u> (Date)	
1b. TO: Division Commander U.S. Army Engineer Division, South Pacific CESPDP-ET	COMMENTS, ACTION, OR RECOMMENDATION BY DIVISION COMMANDER RECOMMEND APPROVAL.	
	OFFICE SYMBOL CESPDP-ET-E	NAME AND TITLE (Print or Type) JACK E. FARLESS Chief, Engineering Division
	DATE 6/30/97	SIGNATURE 
2. TO: HQUSACE (CEMP-EA) WASH DC 20314-1000	COMMENTS OR ACTION BY COMMANDER, USACE See attached Sheet 3	
	OFFICE SYMBOL CEMP-R	NAME AND TITLE (Print or Type) Kisuk Cheung, Acting Chief, Environmental Div.
	DATE 07/23/97	SIGNATURE 
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 CESPCK-CO-C (GENE ERNST) CESPCK-ED-M (ELECTRICAL DESIGN) CESPCK-ED-M (MECHANICAL DESIGN) CESPCK-ED-M (CIVIL DESIGN)	

RECOMMENDED CHANGES TO ENGINEERING DOCUMENTS (Cont'd)

OFFICE SYMBOL AND DATE
CESPK-CO-C

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

1. PROBLEM:

Instruction from HQ is to minimize the quantity of contractor submittals that require Government approval, "GA" action. The CEGS specifies the following as "GA" even though they do not appear to fall under the "Government Approved" submittals of CEGS-01300, Paragraph 1.1.1.

- SD-01: Manufacturer's Literature, etc. "GA"
- SD-04: Detail Drawing "GA"
- SD-09: Testing "GA"

2. RECOMMENDED SOLUTION:

Change the "GA" submittals to "FIO" (For Information Only) for the above.

NAME OF SUBMITTER (Optional)
Gene Ernst, CESPK-CO-C, thru Steve Freitas - Criteria Management Unit

WORK TELEPHONE NUMBER (Optional)
(916) 557-7296

CEMP-RT

7/21/97

ENG FORM 3078 Recommended Changes to Engineering Documents

Block 2 (continuation)

Disagree with recommendation to change SD-01: Manufacturer's literature, etc. and SD-04: Detail Drawing from "GA" To "FIO."

The scope of SD-01 is more than standard literature. The performance charts and pump curves are specific to equipment whose compatibility with the entire system must be checked.

The scope of SD-04 is more than as-builts. The "complete piping, wiring, schematic, flow diagrams, and any other details required to demonstrate that the system has been coordinated," "proposed layout," and "equipment relationship to other parts of the work" are site specific and are extensions of design.

Agree with recommendation to change SD-09: Testing from "GA" to "FIO." This and other changes are currently underway.

RECOMMENDED CHANGES TO ENGINEERING DOCUMENTS

(Submit a separate form in quadruplicate for each report)

(ER 1110-345-100)

OFFICE SYMBOL AND DATE

CESPK-ED-M
21 May 1997

DOCUMENT NUMBER AND DATE

CEGS-11500
February 1989

DOCUMENT TITLE

Air Pollution Control

DOCUMENT TYPE

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

MILITARY
XX

CIVIL WORKS

SUBJECT

"CA" Contractor Submittals

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-*for*

NAME AND TITLE (Print or Type)

Brian W. Doyle; Chief, Engineering Division

DATE

SIGNATURE

Milton Jones

1a. TO:

HOUSACE (CEMP-EA)
WASH DC 20314-1000

INFORMATION COPY OF THIS ENG FORM 3078 WAS SENT

22 MAY 1997

(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 (Print or Type)

JACK E. FARLESS
Chief, Engineering Division

DATE

6/30/97

SIGNATURE

Albert Sial...

2. TO:

HOUSACE (CEMP-EA)
WASH DC 20314-1000

COMMENTS OR ACTION BY COMMANDER, USACE

Concur in part. See attached sheet.

OFFICE SYMBOL

CEMP-E

NAME AND TITLE (Print or Type)

KISUK CHEUNG, P.E.
Chief, Engineering Division

DATE

6/25/97

SIGNATURE

K. Cheung

3. TO:

Division Commander
U.S. Army Engineer Division.

South Pacific
ATTN: CESPD-ET
333 Market St.
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-ED-M
21 MAY 1997

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

1. PROBLEM:

Instruction from HQ is to minimize the quantity of contractor submittals that require Government approval, "GA" action. But the CEGS specifies the following as "GA" even though they do not appear to fall under the "Government Approved" submittals of CEGS-01300, Paragraph 1.1.1.

SD-08: Testing and Inspection Procedure "GA"
SD-09: Test Procedures; Test Reports "GA"
SD-19: O&M Manuals "GA"

2. RECOMMENDED SOLUTION:

Change the "GA" submittals to "FIO" (For Information Only) for the above.

NAME OF SUBMITTER (Optional)

Gene Ernst (916) 557-7776 CO-C
thru Steve Freitas; ED-M, CRITERIA MANAGEMENT UNIT

WORK TELEPHONE NUMBER (Optional)

(916 557-7296)

Attachment to Eng Form 3078
CEGS-11500, February 1989
Air Pollution Control
Dan Gentil, HQUSACE, (202) 761-8622

Concur with intent to limit the need for government approval of submittals to the most critical features. We have recently completed a review of the guide specifications to confirm the need for government approval and eliminate the requirement where not considered essential. The guide specifications have or are being revised to reflect these changes. In many cases we are giving the designer the option of determining the review level depending on the project specific requirements.

9095
ENCL 1

RECOMMENDED CHANGES TO ENGINEERING DOCUMENTS

(Submit a separate form in quadruplicate for each report)

(ER 1110-345-100)

OFFICE SYMBOL AND DATE

CESPK-ED-M
22 May 1997

DOCUMENT NUMBER AND DATE

CEGS 13814
April 1989

DOCUMENT TITLE

Building Preparation for Energy
Monitoring and Control Systems

DOCUMENT TYPE

- DRAWING ((STANDARD) [DEFINITIVE]) SPECIFICATION ((GUIDE) (STANDARD))
- DESIGN GUIDER TECHNICAL MANUAL
- ENGINEER MANUAL ENGINEER REGULATION OTHER

MILITARY
XX

CIVIL WORKS

SUBJECT

"GA" Contractors Submittals

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 (Print or Type)

Brian W. Doyle; Chief, Engineering Division

DATE

22 MAY 97

SIGNATURE

Milton [Signature]

1a. TO:

HOUSACE (CEMP-EA)
WASH DC 20314-1000

INFORMATION COPY OF THIS ENG FORM 3078 WAS SENT

22 MAY 1997

(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 (Print or Type)

JACK E. FARLESS
Chief, Engineering Division

DATE

6/30/97

SIGNATURE

Albert [Signature]

2 TO:

HOUSACE (CEMP-EA)
WASH DC 20314-1000

COMMENTS OR ACTION BY COMMANDER, USACE

~~See attached sheet.~~ See attached sheet.

OFFICE SYMBOL

CEMP-E

NAME AND TITLE (Print or Type)

KISUK CHEUNG, P.E.P, C, ENGR. DIV.

DATE

28 Jul

SIGNATURE

3 TO:

Division Commander
U.S. Army Engineer Division,

South Pacific
ATTN: CESPD-ET
333 Market St.
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-ED-M
22 MAY 1997

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

1. PROBLEM:

Instruction from HQ is to minimize the quantity of contractor submittals that require Government approval, "GA" action. But the CEGS specifies the following as "GA" even though they do not appear to fall under the "Government Approved" submittals of
CEGS-01300, Paragraph 1.1.1.

SD-08: Test Plan "GA"

2. RECOMMENDED SOLUTION:

Change the "GA" submittals to "FIO" (For Information Only) for the above.

NAME OF SUBMITTER (Optional)

Gene Ernst (916) 557-7776 CO-C
thru Steve Freitas; ED-M, CRITERIA MANAGEMENT UNIT

WORK TELEPHONE NUMBER (Optional)

(916) 557-7296

COMMENTS - HQUSACE, CEMP-ET

Concur with intent to limit the need for government approval of submittals to the most critical features. We have recently completed a review of the guide specifications to confirm the need for government approval and eliminate the requirement where not considered essential. The guide specifications have or are being revised to reflect these changes. In many cases we are giving the designer the option of determining the review level depending on the project specific requirements.

Testing requirements are essential to efficient operation of EMCS and all test plans must be approved by the Government to assure that the system and/or components meets the contract specifications.

RECOMMENDED CHANGES TO ENGINEERING DOCUMENTS

(Submit a separate form in quadruplicate for each report)

(ER 1110-345-100)

OFFICE SYMBOL AND DATE

CESPK-ED-M
22 May 1997

DOCUMENT NUMBER AND DATE

CEGS-14210
October 1993

DOCUMENT TITLE

Elevators, Electric

DOCUMENT TYPE

DRAWING ((STANDARD) [DEFINITIVE])

SPECIFICATION ((GUIDE) [STANDARD])

DESIGN GUIDES

TECHNICAL MANUAL

ENGINEER MANUAL

ENGINEER REGULATION

OTHER

MILITARY

CIVIL WORKS

SUBJECT

"GA" Contractor Submittals

ROUTING (Check)

ACTION RECOMMENDED BY DISTRICT COMMANDER

FROM:

District Commander
U.S. Army Engineer District,

(See Sheet 2)

Sacramento
CESPK-ED-M

OFFICE SYMBOL

CESPK-ED

NAME AND TITLE (Print or Type)

Brian W. Doyle; Chief, Engineering Division

DATE

22 May 97

SIGNATURE

Milton [Signature]

1a. TO:

HOUSACE (CEMP-EA)
WASH DC 20314-1000

INFORMATION COPY OF THIS ENG FORM 3078 WAS SENT

22 MAY 1997

(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 (Print or Type)

JACK E. FARLESS
Chief, Engineering Division

DATE

6/30/97

SIGNATURE

Albert [Signature]

2. TO:

HOUSACE (CEMP-EA)
WASH DC 20314-1000

COMMENTS OR ACTION BY COMMANDER, USACE

Concur
See attached sheet.

OFFICE SYMBOL

CEMP-E

NAME AND TITLE (Print or Type)

KISUK CHEUNG, P.F., C. ENGR. DIV.

DATE

7-28-97

SIGNATURE

for Mohan [Signature]

3. TO:

Division Commander
U.S. Army Engineer Division,
South Pacific
ATTN: CESPD-ET
333 Market St.
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-ED-M
22 MAY 1997

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

1. PROBLEM:

Instruction from HQ is to minimize the quantity of contractors submittals that require Government approval, "GA" action. But the CEGS specifies the following as "GA".

SD-14: Finish Samples "GA"
SD-18: Test Procedures "GA"
SD-19: O&M Manuals "GA"

2. RECOMMENDED SOLUTION:

Change the "GA" submittals to "FIO" (For Information Only) for the above.

NAME OF SUBMITTER (Optional)

Gene Ernst (916) 557-7776 CO-C
thru Steve Freitas; ED-M, CRITERIA MANAGEMENT UNIT

WORK TELEPHONE NUMBER (Optional)

(916) 557-7296

CEMP-ET

14 July 1997

SUBJECT: 3078 Submitted by CESP-K-ED-M, 22 May 1997, CEGS 14210, Electric Elevators,

1. Concur with the intent to limit government approval of submittals to the most critical features. We have recently completed a review of the guide specifications to confirm the need for government approval and eliminate the requirement where not considered essential. The guide specifications have or are being revised to reflect these changes. In many cases we are giving the designer the option of determining the review level depending on the project specific requirements.

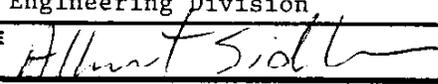
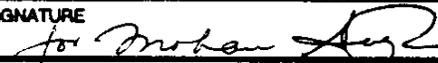
2. This following action is applicable to the three submittal items addressed in the subject 3078:

a. SD-14 Finish Samples: Change this submittal classification to "[]". This item is made a designer option in order to ensure that finishes in elevators meet the interior finish scheme for facilities that are aesthetically sensitive and require a coordinating effort in selecting finishes.

b. SD-18 Test Procedures: This item is left "GA" in order to ensure that complete test procedures that safely test the elevator are conducted by the contractor. Testing of the elevators is considered a critical function.

c. SD-19 O&M Manuals: This item will remain "GA" since inspection, maintenance and service on elevators are highly specialized and can be costly. It is important that O&M Manuals for elevators are complete and meet specifications requirements before being turned over to the user.

3. The above is also applicable to CEGS 14240, Hydraulic Elevators. Changes will be incorporated into the guided specifications by Notice.

RECOMMENDED CHANGES TO ENGINEERING DOCUMENTS (Submit a separate form in quadruplicate for each report) (ER 1110-345-100)		OFFICE SYMBOL AND DATE
DOCUMENT NUMBER AND DATE CEGS 15330 June 1994	DOCUMENT TITLE Wet Pipe Sprinkler System, Fire Protection	CESPK-ED-M 8 May 1997
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 Recessed sprinklers		
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 (Print or Type) Brian W. Doyle; Chief, Engineering Division DATE 9 May 97 SIGNATURE 
1a. TO: HOUSACE (CEMP-EA) WASH DC 20314-1000		INFORMATION COPY OF THIS ENG FORM 3078 WAS SENT _____ 8 MAY 1997 (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-ET NAME AND TITLE (Print or Type) JACK E. FARLESS Chief, Engineering Division DATE 6/30/97 SIGNATURE 
2 TO: HOUSACE (CEMP-EA) WASH DC 20314-1000		COMMENTS OR ACTION BY COMMANDER, USACE "Concur, CEGS 15330 will modified by notice." OFFICE SYMBOL CEMP-E NAME AND TITLE (Print or Type) KISUK CHEUNG, P.E. C. ENGR. DIV. DATE 7-28-97 SIGNATURE 
3. TO: Division Commander U.S. Army Engineer Division, South Pacific ATTN: CESPD-ET 333 Market St. 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 CESPK-ED-M (Scott Barmann, Mechanical Design Sec)

RECOMMENDED CHANGES TO ENGINEERING DOCUMENTS (Cont'd)

OFFICE SYMBOL AND DATE
CESPK-ED-M
8 MAY 1997

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

1. PROBLEM:

Subpart 2.8.2 provides options for "recessed" and "semi-recessed" pendent sprinklers. "Semi-recessed" sprinklers are not defined by NFPA 13. "Recessed" sprinklers are defined by NFPA 13 as "Sprinklers in which all or part of the body, other than the shank thread, is mounted within a recessed housing". Since NFPA 13 indicates "all or part of the body" the Contractor can install the sprinklers with only 1 mm (1/16 inch) of the body within the recessed housing. This minimal recessing can be inadequate in low ceilings like dormitory corridors and dormitory bathrooms.

2. RECOMMENDED SOLUTION:

The option for "semi-recessed" should be deleted since it is not defined by NFPA 13. "Recessed" sprinklers should indicate the amount of recessing which is required.

Suggest Revising Subpart 2.8.2 as follows:

Pendent sprinkler shall be of the fusible strut or glass bulb type, [recessed ~~(sprinkler deflector shall be no more than 20 mm (3/4 inch) below the lower plane of the ceiling)~~]; ~~[semi-recessed]~~ [quick-response] type with nominal 12.7 mm (1/2 inch) (1/2 inch) [or 13.5 mm (17/32 inch) (17/32 inch)] orifice. Pendent sprinklers shall have a [polished chrome] [or] [white enamel] [] finish.

NAME OF SUBMITTER (Optional) Scott L. Barmann, (916) 557-7387 ED-M
thru Steve Freitas; ED-M, CRITERIA MANAGEMENT UNIT

WORK TELEPHONE NUMBER (Optional)
(916 557-7296)

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 the 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, CEHNC-ED-ES-G, at (205) 895-1821 between 8:00 a.m. and 4:00 p.m., Central Time.

Encl 3 (2 pages)

PUBLICATION LIST

<u>PUB-NO.</u>	<u>PUBLICATION</u>	<u>PUB-DATE</u>
CEGS-08360	Vertical Lift Doors	Aug 97
CEGS-05500	Miscellaneous Metal	Jul 97
CEGS-08550	Wood Windows	Ju1 97
CEGS-08560	Polyvinyl Chloride (PVC) Windows	Jun 97
CEGS-08160	Aluminum Sliding Glass Doors	Aug 97
ER 1110-345-700	Design Analysis, Drawings and Specifications	May 97
ETL 1110-1-175	Practical Aspects of Applying Geostatistics at Hazardous, Toxic, and Radioactive Waste Sites	Jun 97
TM 5-803-11/AFJMAN 32-10139	Children's Outdoor Play Areas	May 97
TM 5-825-2/NAVFAC DM 21.3/AFJMAN 32- 1014	Flexible Pavement Design for Airfields	Feb 97