

## Safety

### SAFETY AND HEALTH REQUIREMENTS

1. Purpose. This manual prescribes the safety and health requirements for all Corps of Engineers activities and operations.

2. Applicability. This manual applies to Headquarters, US Army Corps of Engineers (HQUSACE) elements, major subordinate commands, districts, centers, laboratories, and field operating activities (FOA), as well as USACE contracts and those administered on behalf of USACE. Applicability extends to occupational exposure for missions under the command of the Chief of Engineers, whether accomplished by military, civilian, or contractor personnel.

3. References.

- a. 29 Code of Federal Regulation (CFR) 1910
- b. 29 CFR 1926
- c. 29 CFR 1960
- d. Executive Order (EO) 12196
- e. Federal Acquisition Regulation (FAR) Clause 52.236-13

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This manual supersedes EM 385-1-1, 3 November 2003

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f. Department of Defense Instruction (DODI) 6055.1

g. Army Regulation (AR) 40-5

h. AR 385-10.

4. General.

a. The provisions of this manual implement and supplement the safety and health standards and requirements referenced above. Where more stringent safety and occupational health standards are set forth in these requirements and regulations, the more stringent standards shall apply.

b. Mission applicability introduced in paragraph 2 above shall include the following:

(1) Construction contract work under the provisions of FAR Clause 52.236-13. Contractors shall comply with the latest version of EM 385-1-1 (including interim changes) that is in effect on the date of solicitation. Prior to making an offer, bidders should check the HQUSACE Safety and Occupational Health web site (see paragraph c) for the latest changes. No separate payment will be made for compliance with this paragraph or for compliance with other safety and health requirements of this contract. Note: Existing contracts will continue to apply the provisions of the previous edition of this manual until contract completion.

(2) Service, supply, and research and development contracting actions. Compliance with this manual shall be a contract requirement for such activities unless technical representatives (in coordination with safety and health professionals) advise that special precautions are not appropriate due to extremely limited scope of services or similar. However, it is understood that this manual in its entirety may be too complex for the type of work being performed under these contracts. These contractors may reference Appendix A, paragraph 11 for limited scope Accident Prevention Plan (APP).

(3) Contracting actions for hazardous, toxic, and radioactive waste site investigation, design, or remediation activities. Compliance with this manual shall be a contract requirement.

c. Changes. All interim changes (changes made between publication of new editions) to this manual, and the effective date of change, will be posted on the Safety and Occupational Health Office website: <http://www.usace.army.mil/CESO/Pages/Home.aspx> and in USACE Electronic bid Sets. Hard copies of this manual are available from the local contracting official.

d. Interpretations. Within the Corps of Engineers, interpretations to the requirements contained within this manual shall be executed in accordance with the process contained in Appendix M. Interpretations will apply only to the specific situation in question and may not be used as a precedent to determine the meaning of a requirement as it may apply to another circumstance.

e. Variances and Waivers. Within the Corps of Engineers, variances and waivers to provisions of this manual require the approval of the Chief of Safety and Occupational Health, HQUSACE. Variances or waivers shall provide an equal or greater level of protection, shall be substantiated with a hazard analysis of the activity and shall be documented and forwarded through channels to Chief of Safety and Occupational Health, HQUSACE. The process for requesting variances or waivers is contained in Appendix N.

f. Activities performed OCONUS. Some of the technical requirements of this manual may not be applicable to overseas activities due to conflicting circumstances, practices, and laws or regulations of the locality or the unavailability of equipment. In such instances, means other than the ones specified in this manual may be used to achieve the required protection. In such instances, a hazard analysis must be developed to document that the required protection will be achieved by the alternate means.

g. Unless otherwise indicated, when publications are referenced in this manual, the most recent edition is to be used.

h. The use of underlining in this manual indicates new or changed text from the 2003 version.

i. Supplementation of this manual is not authorized except as published by the Safety and Occupational Health Office, HQUSACE.

(1) Local USACE organizations may develop Standard Operating Procedures (SOPs) to implement the provisions contained within this manual, but may not implement new requirements without the specific approval of HQUSACE.

(2) Locally developed Safety and Health Requirements will not be included in contract requirements without the approval of HQUSACE.

FOR THE COMMANDER:

  
STEPHEN L. HILL  
Colonel, Corps of Engineers  
Chief of Staff

**Errata Sheet****No. 1**

## Safety

## SAFETY AND HEALTH REQUIREMENTS MANUAL

EM 385-1-1

15 September 2008

**Administrative Changes:** Pending the next update to the EM 385-1-1, the following changes shall be made. These changes are **administrative** in nature only.

1. Page 16, Paragraph 01.C.04: Delete “be”. “Operators are not permitted to operate beyond the following limits:”
2. Page 45, 04.A.05.c: Change “04.A.05.C.” to “04.A.05.c”.
3. Page 45, 04.A.05.g: Change “...not less than 1- ft (0.45 m)” to “...not less than 1.5 ft (0.45m) above...”
4. Page 64, 05.D.05.a: Add “3/4 – in” in 2<sup>nd</sup> sentence. “... approximately  $\frac{3}{4}$  in (1.9 cm) above...”
5. Page 224, 11.D.02.d: Add “1/2 in” in 2<sup>nd</sup> sentence. “...shall be at least  $\frac{1}{2}$  in (12 mm) IN diameter.”
6. Page 270, 13.B.01.d: Add “1/2 in” in first sentence. “...not more than  $\frac{1}{2}$  in (1.2 cm) thick, ...”
7. Page 270, 13.B.01.e: Add “1/4 in” in first sentence. “...in diameter and  $\frac{1}{4}$  in (6 mm) in thickness, ...”
8. Page 302, Paragraph 15.H.06.c: Change “use” to “user” and delete the word “and”. Should read: “Shackles shall be inspected visually by the user (or other designated person)...”

EM 385-1-1  
Errata Sheet  
5 Mar 2010

9. Page 317, Paragraph 16.B.05.a: Delete one “r” from “recognize”.  
“Ability to recognize....”

10. Page 318, Paragraph 16.B.06.c: Change “agencies” to  
“agency’s”: “...or by the agency’s random drug testing program.  
This test...”.

11. Page 332, Paragraph 16.D.12.f (1)(b): Change “wore” to “wire”.  
“...Joining lengths of wire rope by splicing is prohibited.”

12. Page 332, Paragraph 16.D.12.f(2)(b)(i): Change “sue” to “use”.  
“...continue to use the wire rope...”

13. Page 333, Paragraph 16.D.12.f(2)(b)(iii): Change “require<sup>3</sup>” to  
“require”. “...will require the equipment...”

14. Page 335, Paragraph 16.E.01.c: Change “stobs” to “stops”: “Jib  
stops (if jib is attached), except for derricks.”

15. Page 335, Paragraph 16.E.01.d: Add “and” between “portal”  
and “floating”: “...except for portal and floating cranes.”

16. Page 347, Paragraph 16.G.05.a: Change “Figure 16-“ to “Figure  
16-1”: “...must be used per Figure 16-1.”

17. Page 348, Paragraph 16.G.05.c: Change “requirement” to  
“requiring”. “During crane operations requiring signals...”

18. Page 354, Paragraph Table 16-3, Change “351 to 500” to “351  
– 500” for consistency.

19. Page 358, Paragraph 16.J.03.d: Change “outriggers” to  
“outrigger”: “Blocking under outrigger floats...”

20. Page 388, Paragraph 16.T.03.c: Change “leel” to “level”: “...to  
remain within 10 degrees of level, regardless...”

21. Page 388, 16.T.04.a: Add “1/2 in”. “...no greater than 1/2 inch  
(1.2 cm).”

22. Page 391, Paragraph 16.T.06.I: Change “with the engine crane running” to “with the crane engine running”. “...at all times, with the crane engine running whenever the platform is occupied.”
23. Page 448, Paragraph 19.A.03.d: Change reference “05.H.02” to “05.J.02”: “USCG-approved Type V automatic inflatable PFDs rated for commercial use may be worn by workers on USACE sites per 05.J.02.”
24. Page 497, Paragraph 21.E.01.d(2)(b): Change “Posts: At least 1 in (3.8 cm) nominal diameter...” to “Posts: At least 1.5 in (3.8 cm) nominal diameter...”.
25. Page 498, Paragraph 21.E.01.d(4)(a): Add “1/4 in”. “Toprail and midrail: 1/4 - in (6.25 mm) steel cable, ...”
26. Page 498, Paragraph 21.E.01.d(4)(e)(1): Change “...3 in...” to “...3.5 in (8.75 cm) in vertical height...”
27. Page 509, Paragraph 21.I.04: Add “...3/4 - in...”. “> **Do not install LCDs on ladders that have 3/4 –in (1.9 cm)...**”
28. Page 516, Paragraph 22.A.08: Add “...1/2-in...”. “...consisting of No. 18 gauge US Standard wire 1/2-in (1.2 cm) mesh...”.
29. Page 520, Paragraph 22.B.08.a.(2): Change “...span for 1 in x 9 in (3.1 cm x 22.8 cm) or wider...” to “...span for 1.2 in x 9 in (3.1 cm x 22.8 cm) or wider...”.
30. Page 580, Paragraph 24.B.08.b: Add “1/4 (one quarter)” to sentence. “...ladder will not be greater than 1/4 (one quarter) the vertical distance...”
31. Page 652, Paragraph 27.E.03.d: Add “...1/2- in...”. “...shall be kept within 1/2- in (1.2 cm) of that...”
32. Page 652, Paragraph 27.E.03.d(1): Add “1/2 – in”. “...when the 1/2 - in (1.2 cm)...”

EM 385-1-1  
Errata Sheet  
5 Mar 2010

33. Pages 776 and 777, Figure 33-4: pictures for M7A2 and M72 are transposed. Switch.

34. Page 783, Figures 33-9, pictures for M42 and BLU-26 are transposed. Switch.

35. Page 796, Paragraph 34.B.04: Change “19%” to “19.5%”. “... oxygen is below 19.5% or above 22%...”

Safety and Occupational Health  
SAFETY AND HEALTH REQUIREMENTS MANUAL  
2008 EDITION

1. These changes shall be considered effective retroactive for all GRD and AED contracts. For all other locations, these changes are in effect as of 5 Apr 2010 so that all contracts whose date of solicitation is 5 April 2010 or later, shall consider this change in effect. All underlined wording is specific to this change.

2. This Change 1 affects the following paragraphs:

- a. 01.A.06.j: Add new paragraph;
- b. 01.A.16: Replaced existing paragraph with new;
- c. 01.B04.a-f: Reword and reformat;
- d. 01.D.02.h: Add new paragraph;
- e. 01.D.2: Change wording;
- f. 06.A.02.a: Move to last sentence of paragraph 01.A.13;
- g. 01.A.13: Change wording (see 2.f above);
- h. 06.A.02: Rearrange paragraphs and change wording;
- i. 06.B.01: Change wording.
- J- Appendix Q: Add 3 new definitions;
- k. Appendix S: Add 2 new references.

3. Make corrections to the following paragraphs.

a. Paragraph 01.A.06: Add the following paragraph "01.A.06.j: A copy of the hazardous material inventory, identification of use, approximate quantities and site map detailing location as required by and IAW 06.B.01.a(2)-(4)"

b. Paragraph 01.A.06: Replace existing paragraph with the following: "When an employee is deemed to be in imminent danger of serious injury or illness or loss of life, The COR or a designated representative shall immediately stop the work or activity posing the hazard. These hazards include those created by the work as well as those from any previously unidentified toxic agent or hazard with