Safety & Health Requirements
References

- USACOE EM385-1-1
- ANSI A10.38, 1991:  
  - Basic Elements of a Program to Provide a Safe & Healthful Work Environment
- OSHA STD 1926.20:  
  - General Safety and Health Provisions
Most Cited Issues

- No safety training for employees
- Jobsite inspections by competent person
- No Accident Prevention Program
- Poor housekeeping
• Worker lacerated right thigh while cutting galv. pipe with portable disc sander.
• A worker on a dry dock wall, approximately 30 feet above the dry dock floor fell off the edge of the work platform to the dry dock floor.
• Carpenter apprentice was removing formwork when left ring finger was caught between the bar and the concrete.
• Mason was leveling concrete near the concrete placement when concrete vibrator splashed the worker’s face with concrete causing laceration and swelling of the left eye. (Retracted - discovered that injury was from existing medical condition)
• While picking up supplies & exiting from jobsite trailer/ container, worker slipped on wet stair tread and struck his lower back.
• Worker in the trench was pinched between the shoring wall & formwork and suffered back injury.
EM 385-1-1 has Changed

EM 385 1-1, 2003 VS EM 385 1-1, 2008
EM 385-1-1

Where more stringent safety and occupational health standards are set forth in these requirements/regulations, the more stringent standard shall apply.

(Appplies to USACE and NAVFAC)
EM 385-1-1 Requirements

Variances

- Requires approval of Echelon III Safety Program Managers
- Provide equal or greater protection
- Substantiated with a hazard analysis of the activity (AHA)
EM 385-1-1 Requirements

EXCEPTIONS

- Some of the technical requirements may not always be applicable to overseas activities due to conflicting circumstances, practices, and laws or regulations of the locality or the unavailability of equipment. Hazard Analysis must be developed to document that required protection will be achieved by alternative means.
Program Management
Definitions

“Competent Person: One who can identify existing & predicable hazards in the working environment or working conditions that are dangerous to personnel & who has the authorization to take prompt corrective measures to eliminate them.”
Definitions

- **Qualified Person:** means one who, by possession of a:
  - recognized degree,
  - certificate, or
  - professional standing, or
  - who by extensive knowledge, training, and experience,
  - has successfully demonstrated his ability to solve or resolve problems relating to the subject matter, the work, or the project.

- **Qualified Person (Electrical):** one who has the skills and knowledge related to the construction and operation of the electrical equipment and installations and has received safety and health training on the hazards involved.
General Requirements

- No person shall be required or instructed to work in surroundings or under conditions that are unsafe or dangerous to his or her health.
The employer shall be responsible for initiating and maintaining a safety and health program that complies with EM 385-1-1.
Program Management

- Each employee is responsible for complying with applicable safety & occupational health requirements, wearing prescribed safety and health equipment, reporting unsafe conditions/activities, preventing avoidable accidents and working in a safe manner.
Safety Bulletin Board

- The Contractor shall erect and maintain a safety and health bulletin board in a commonly accessed area in clear view of the on-site workers. The bulletin board shall be continually maintained and updated and placed in a location that is protected against the elements and unauthorized removal.

- *Note:* Check specs. for additional posting requirements.
Before initiation of work at the job site, an APP shall be reviewed and found acceptable by the GDA.

- a. Shall contain appropriate appendices.
- b. Shall be written in English by the Prime Contractor and shall articulate the specific work and hazards pertaining to the contract.
- c. Shall be developed and submitted by the Contractor in the format provided in Appendix A.
- d. Shall be developed by Qualified personnel and then signed in accordance with Appendix A, paragraph 1. The Contractor shall be responsible for documenting the Qualified person’s credentials.
- f. For contract operations, the Contractor's APP shall be job specific and should include work to be performed by subcontractors.
- g. Updates to the APP shall be reviewed and approved by the GDA.
a. The APP shall provide for frequent safety inspections/audits, conducted by a Competent Person, of the work sites, material, and equipment to ensure compliance with the plan and this manual. These inspections/audits shall be documented in writing and available upon request to the GDA. They shall include the name of the inspector, date, and all findings.
Job site Inspections

Frequent Safety Inspections by a Competent Person:
- Work Sites
- Material
- Equipment
b. In addition, Contractor Quality Control (QC) personnel, as part of their QC responsibilities, shall conduct and document daily safety and occupational health inspections in their daily QC logs.

c. Identified safety and health issues and deficiencies, and the actions, timetable, and responsibility for correcting the deficiencies, shall be recorded in inspection reports. Follow-up inspections to ensure correction of any identified deficiencies must also be conducted and documented in inspection reports.
e. The Contractor shall immediately notify the GDA of any OSHA or other regulatory agency inspection and provide GDA an opportunity to accompany the Contractor on the inspection. *(The inspection will not be delayed due to non-availability of the GDA.)* The Contractor shall provide the GDA with a copy of any citations or reports issued by the inspector and any corrective action responses to the citations or reports.
Other Program Requirements

- **Training**
- **Safety Meetings**
  - Monthly for Project Supervisors
  - Weekly by Supervisor/Foreman for Workers
  - Documentation of All Meetings Required
- **Emergency Response Training**
- **Hazard Communication Program**
Contractor-Required AHA. Before beginning each work activity involving a type of work presenting hazards not experienced in previous project operations or where a new work crew or subcontractor is to perform the work, the Contractors performing that work activity shall prepare an AHA.
Work shall not begin until the AHA for the work activity has been accepted by the GDA and discussed with all engaged in the activity, including the Contractor, subcontractors, and Government on-site representatives at preparatory and initial control phase meetings.
The names of the Competent/ Qualified Person required for a particular activity (for example, excavations, scaffolding, fall protection, other activities as specified by OSHA and this manual) shall be identified and included in the AHA. Proof of their competency/ qualification shall be submitted to the GDA for acceptance prior to the start of that work activity.
The AHA shall be reviewed and modified as necessary to address changing site conditions, operations, or change of competent/qualified persons.

- (1) If more than one Competent/Qualified Person is used on the AHA activity, a list of names shall be submitted as an attachment to the AHA. Those listed must be Competent/Qualified for the type of work involved in the AHA and familiar with current site safety issues.

- (2) If a new Competent/Qualified Person (not on the original list) is added, the list shall be updated (an administrative action not requiring an updated AHA). The new person shall acknowledge in writing that he or she has reviewed the AHA and is familiar with current site safety issues.
Site Safety & Health Officer

Site Safety and Health Officer (SSHO). The Contractor shall employ a minimum of one Competent Person at each project site to function as the SSHO, depending on job complexity, size and any other pertinent factors.

a. The SSHO shall be a full-time responsibility unless specified differently in the contract. The SSHO shall report to a senior project (or corporate) official.

b. The SSHO, as a minimum, must have completed the 30-hour OSHA Construction safety class or as an equivalent, 30 hours of formal construction safety and health training covering the subjects of the OSHA 30-hour course (see Appendix A, paragraph 4.b) applicable to the work to be performed and given by qualified instructors. > If the SSHO has the permitted equivalent training, he is also required to have five (5) years of construction industry safety experience or three (3) years if he possesses a Certified Safety Professional (CSP) or safety and health degree.
In addition to the previously mentioned education, experience and training, SSHOs shall have completed a certification course entitled “Construction Safety Hazard Awareness Course for Contractors”. If the SSHO does not have a current certification, they must obtain such within 60 calendar days of contract award.
c. An SSHO (or a Designated Representative, as identified in the APP/ AHA and as deemed appropriate/ equivalent to SSHO by the GDA) shall be on-site at all times when work is being performed.

d. The SSHO shall be responsible for managing, implementing and enforcing the Contractor’s Safety and Health Program in accordance with the accepted APP.

e. SSHOs shall maintain this competency through 24 hours of formal safety and health related coursework every four (4) years.
For limited service contracts, for example, mowing (only), park attendants, rest room cleaning, the Contracting Officer and Safety Office may modify SSHO requirements and waive the more stringent elements of this section. (See Appendix A, paragraphs 4 and 11.)

For complex or high hazard projects, the SSHO shall have a minimum of ten (10) years of safety-related work with at least five (5) years experience on similar type projects.
The Prime Contractor is responsible for ensuring subcontractor compliance with the safety and occupational health requirements contained in this manual.
Employees shall be provided with safety and health indoctrination prior to the start of work as well as continuous safety and health training to enable them to perform their work in a safe manner. All training, meetings and indoctrinations shall be documented in writing by date, name, content and trainer.
Indoctrination & Training

- All visitors to Government or Contractor controlled sites presenting hazardous conditions shall be briefed by a Qualified Person on the hazards to be expected on the site and the safety and health controls required (for example, hard hat, foot protection, etc.). The person in charge of the site shall ensure that all visitors entering the site are properly protected and are wearing or provided with the appropriate PPE. Site personnel should maintain a stock of common PPE, such as hard hats, eye protection, ear plugs, and reflective vests, for use by visitors.

- The site manager shall provide an escort for all visitors while on site.

- A visitor sign-in log shall be maintained on site.
Safety Meetings

- Safety meetings conducted to review past activities, plan new or changed operations, review AHA, establish safe working procedures, and provide pertinent safety and health training and motivation.

- Held once a week by supervisors for workers.

- Documented in Production Reports.

- GDA to be informed of schedule and invited to attend meetings.
Emergency Situations

a. The employer shall provide training in handling emergency situations that may arise from project activities or equipment operation.

b. All persons who may have occasion to use emergency and rescue or lifesaving equipment shall be familiarized with the equipment location, trained in its proper use, be instructed in its capabilities and limitations, and medically qualified for its use.
Physical Qualifications

All persons shall be physically, medically, and emotionally (ready, willing and able) qualified for performing the duties to which they are assigned. Some factors to be considered in making work assignments are strength, endurance, agility, coordination, and visual and hearing acuity.

a. At a minimum, employees shall meet the physical requirements for specific job tasks and hazards as required by OSHA guidelines, Department of Transportation (DOT) regulations, and U.S. Coast Guard (USCG) requirements.

b. Medical documentation shall be recorded using applicable medical screening and/or medical history and examination forms and shall be maintained in accordance with 5 CFR 293 and Privacy Act requirements.
Prohibited Substances

While on duty, employees shall not use or be under the influence of alcohol, narcotics, intoxicants, or similar mind-altering substances.
Employee Limitations

- Operators are not permitted to operate beyond the following limits:

  a. Operators of equipment, such as hoisting equipment and draglines, mobile construction equipment, electrical power systems, hydropower plants, industrial manufacturing systems, hydraulically operated equipment, powered vessels, and boats, shall not be permitted to exceed twelve (12) hours of duty time in any 24-hour period, including time worked at another occupation. A minimum of eight (8) consecutive hours shall be provided for rest in each 24-hour period.

  b. Operators of motor vehicles, while on duty, shall not operate vehicles for a continuous period of more than ten (10) hours in any 24-hour period; moreover, no employee, while on duty, may operate a motor vehicle after being in a duty status for more than twelve (12) hours during any 24-hour period. A minimum of eight (8) consecutive hours shall be provided for rest in each 24-hour period.
Accident Reporting & Recordkeeping

- All accidents occurring incidentally to an operation, project, or facility for which this manual is applicable shall be investigated, reported, and analyzed as prescribed by the GDA.
Employees are responsible for reporting all injuries or occupationally related illnesses as soon as possible to their employer or immediate supervisor.
Employer’s Responsibility

- Employers and immediate supervisors are responsible for reporting all injuries to the GDA as soon as reasonably possible but no later than 24 hours.
Supervisor’s Role

- No supervisor may decline to accept a report of injury from a subordinate.
Contractors are responsible for notifying OSHA when one or more of their employees are seriously injured.

- a. Fatal injury/ illness;
- b. Permanent totally disabling injury/ illness;
- c. Permanent partial disabling injury/ illness;
- d. Three or more persons hospitalized as inpatients as a result of a single occurrence;
- e. $200,000 or greater accidental property damage or damage in an amount specified by USACE in current accident reporting regulations
- f. Arc Flash Incident/ Accident
Reporting

- CSI R-1 completed and signed by investigation members
- Forward CSI R-1 to GDA
- GDA to notify NAVFAC FECs of mishap using BMS processes
- GDA to schedule Mishap Review Board, if required
Mishap Reporting

- For contracts involving construction, demolition, alteration, maintenance, repair and services (including CLEAN, BOS, J OC, SOC, TOC, BRAC, FSCC, ERN, etc.), where QA and/or project management services are provided by NAVFAC personnel, the contractor shall be required to provide to the Contracting Officer a Contractor Significant Incident Report (CSIR).

(NAVFACI NST 5100.11K.0306)
Mishap Reporting

- **Serious Mishap**
  - Any contractor mishap involving a fatality, regardless of the time between the injury and death, or the length of the illness; permanent totally disabling injury; permanent partial disabling injury; the hospitalization of three or more workers; or property damage in excess of $200,000.
  - Will be investigated by FEC Safety Office
    - With Ech III presence
  - Contractors will perform their own investigation.
Mishap Reporting

- **Recordable Mishaps**
  - **Lost Workday Case**
    - Injuries other than fatalities, that result in a lost workday. Loss of workday from work beyond the day or shift on which it occurred.
Mishap Reporting

- Recordable Mishaps
  - Non-fatal Case
    - Mishap case **without lost workdays** which results in transfer to another job or termination of employment, or requires medical treatment (other than first aid) or involves property damage in excess of $20,000 but less than $200,000 or involves: *loss of consciousness or restriction of work or motion*. This category also includes any diagnosed occupational illnesses, which are reported to the employer but are **not classified as fatalities or lost workday cases**.
Mishap Reporting

- **Recordable Mishaps**
  - The Contracting Officer through the FEC Safety Office shall ensure that an appropriate NAVFAC investigation is completed and the information is entered into the FAIR database via the ESAMS.
Mishap Reporting

- **Recordable Mishaps**
  - The FEC Safety Manager shall review the report and determine if further investigation is warranted. In addition, the FEC SM shall complete appropriate sections of the CSIR.
Mishap Reporting

- **Weight Handling Equipment Mishaps**
  - Investigated and Reported to the Navy Crane Center per P-307
  - Need not be reported to Navy Safety Center
Mishap Investigation & Reporting

- Judge Advocate General (J AGMAN)
  - Any Mishap onboard Naval Installations that result in personal injury or damage to property requires a preliminary inquiry to determine if a J AGMAN is required in addition to the mishap investigation
First Aid Cases

Daily records of all first-aid treatments not otherwise reportable shall be maintained on prescribed forms and furnished to the GDA upon request.
In addition to any other applicable requirements within this section on contract operations, the Prime Contractor shall:

a. Maintain records of all exposure and accident experience incidental to the work (this includes exposure and accident experience of the Prime Contractor and subcontractors and, at a minimum, these records shall include exposure work hours and a log of occupational injuries and illnesses - OSHA Form 300 or equivalent as prescribed by 29 CFR 1904); provide a current copy of OSHA Form 300 or equivalent to the GDA upon request;
Mishap Reporting & Recordkeeping

- Maintain health hazard assessment documentation and employee exposure monitoring to chemical, biological, and physical agents as required by Section 06. Provide this information to employees who are characterized by these assessments and exposure monitoring in accordance with OSHA requirements. Immediately notify the GDA of any exposure in excess of the limits specified in Section 06 and the hazard control measures that have been taken to reduce or eliminate such exposures.
Submit project work hours to the COR monthly in the format provided by the COR. Work hours include all hours on the project where an employee is in an on-duty pay status.
Emergency Planning

Emergency plans to ensure employee safety in case of fire or other emergency shall be prepared, in writing, and reviewed with all affected employees.
Emergency Planning

- Emergency telephone numbers and reporting instructions for ambulance, physician, hospital, fire, and police shall be conspicuously and clearly posted at the work site.
Costs of Accidents
Uninsured Costs

- Deductible part of insurance policy
- Lost wages for those not insured
- Wages paid to injured persons not covered by worker compensation
- Overtime work required as a result of an accident
- Supervisor time related to accident
Uninsured Costs

- Repairing, replacing or cleaning up
- Reduced productivity of injured worker
- Learning period for new worker
- Accident investigation cost
- Costs to prepare and file reports
- Uninsured medical costs
- Costs of litigation
Experience Modification Rates Affects Competition

- Contractor Bid Comparison:
  - Project Cost: $20,000,000
  - Labor Cost: .25
  - Total Labor: $ 5,000,000
  - WC% of Labor: .15
  - WC Cost: $ 750,000
Safe vs. Unsafe Contractor Bids

- WC Cost: $750,000
- EMR: 0.60
- Modified WC: $450,000
- Savings: $300,000

- WC Cost: $750,000
- EMR: 1.40
- Modified WC: $1,050,000
- Extra Expense: $300,000
Changing Beliefs From the Top Down:

- The Zero Injury Commitment:
  - Accidents Don’t Just Happen
  - Accidents Are Not: “just part of doing business”

- Commit to Eliminating, not Reducing Accidents

- A Job with an Injury is a “Defective Product”
‘ZERO INJURY’ Philosophy

- Safety Pre-Project & Pre-Task Planning
- Safety Orientation and Training
- Safety Incentives
- Drug and Alcohol Abuse Program
- Accident & Incident Investigation
DART Rate

= Number of Cases X 200,000
Total Number of Hours Worked

DA – Days away from work
R   - Restricted
T   - Job Transfer
Summary

- Must maintain a “Zero Accident Philosophy”
- Contractors provide a project site free from recognized hazards.
- More stringent standard applies.