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### SECTION 01525

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### SECTION 01525

### GENERAL SAFETY REQUIREMENTS

## PART 1 GENERAL

### 1.1 SUMMARY

Section covers general site safety, accident prevention, accident reporting and Jacksonville District specific safety procedures, "Safety Pays" accident prevention incentive and recognition program.

### 1.1.1 Related Section

Refer to Section 01500 TEMPORARY CONSTRUCTION FACILITIES for safety signs and required bulletin board posters.

### 1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

# ASME INTERNATIONAL (ASME)

ASME B30.5	(1994)	Mobile	Cranes
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ASME B30.22 (1993) Articulating Boom Cranes

### NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 10 (1995) Portable Fire Extinguishers

NFPA 70 (1999) National Electrical Code

NFPA 241 (1996) Safeguarding Construction, Alteration, and Demolition Operations

## U.S. ARMY CORPS OF ENGINEERS (USACE)

COE CESAJP 385-1-2 (1998) Safety Pays

COE CESAJR 385-1-1 (1998) Safety and Occupational Health

Program

COE EM 385-1-1 (1996) U.S. Army Corps of Engineers Safety

and Health Requirements Manual

# U.S. FEDERAL HIGHWAY ADMINISTRATION (FHWA)

MUTCD, PART 6

(2000) Manual on Uniform Traffic Control
Devices - Work Zones

## 1.3 SAFETY MANUALS

COE EM 385-1-1, COE CESAJR 385-1-1, COE CESAJP 385-1-2 are available at http://www.saj.usace.army.mil/conops/index.html. One copy of each will be provided to Contractor at a Preconstruction Conference (refer to Section 01310 ADMINISTRATIVE PROCEDURES. COE EM 385-1-1 is also at above web site in a Spanish version. Additional paper copies of COE EM 385-1-1 may be purchased for \$30.00 using a check or money order as follows:

U.S. Government Printing Office (GPO)
Superintendent of Documents
P.O. Box 371954
Pittsburgh, PA 15250-7954
(GPO Stock Number for the manual is 0008-022-00-310-0)

or

order by credit card by calling 202-512-1800 (Master Card or Visa only)

Additional copies of COE CESAJR 385-1-1 and COE CESAJP 385-1-2 will be provided upon written request.

### 1.4 DEFINITIONS

Use definitions found in COE EM 385-1-1 and COE CESAJR 385-1-1 in submitted work plans.

Safety Officer - Qualified employee or competent person trained or having required experience in safety, occupational health and who is assigned overall responsibility to oversee on-site safety.

Safety Specialist - A person with specialized training or experience in safety and occupational health for specific items of work.

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

## 1.5 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Accident Prevention Plan (APP); G|COR

Within 20 calendar days after Notice of Award, submit Accident Prevention Plan with applicable specific work plans required by paragraph PLANS (PROGRAMS, PROCEDURES) REQUIRED BY THE SAFETY MANUAL of Appendix MINIMUM BASIC OUTLINE FOR ACCIDENT PREVENTION PLAN of COE EM 385-1-1. Refer to paragraphs ACCIDENT PREVENTION PLAN (APP) and ACCIDENT PREVENTION below.

Activity Hazard Analyses (AHA); G|COR

Refer to paragraph ACTIVITY HAZARD ANALYSES (AHA) below.

Employee Safety and Health Indoctrination (ESHI) and Training Plan

Refer to paragraph SAFETY AND HEALTH INDOCTRINATION AND TRAINING below.

Hazard Communication Plan

Refer to paragraph HAZARD COMMUNICATION below.

Emergency Response Plan

Refer to paragraph EMERGENCY RESPONSE PLAN below.

Hurricane and Severe Storm Plan; G|COR

Refer to paragraph HURRICANE AND SEVERE STORM PLAN below.

Dive Operations Plan; G|COR

Refer to paragraphs DIVE PLAN, DIVING OPERATIONS, and DIVE OPERATIONS below.

Critical Lift Plan; G|COR

Submit a critical lift plan for each non-routine crane lift using format described in Section MACHINERY AND MECHANIZED EQUIPMENT of COE EM 385-1-1. Refer to paragraph CRITICAL LIFT PLANNING PROCEDURE AND POLICY below.]

Refer to paragraphs CONFINED SPACE PLAN, CONFINED SPACE ENTRY, and WORKING IN CONFINED SPACES below.

Spill Response Plan; G|COR

Refer to paragraph SPILL RESPONSE PLAN below.

SD-07 Certificates

Qualifications; G|COR

Qualifications, and training certificates of safety personnel

performing as safety specialists or assisting as Quality Control Staff. Includes first aid and CPR certifications. Refer to paragraph SAFETY OFFICER below.

Crane Equipment Records

Equipment inspections and maintenance records for cranes and other equipment used to lift material, equipment or support personnel. See ASME B30.5 and ASME B30.22. Refer to paragraph "Crane Notification" below.

### 1.6 ACCIDENT PREVENTION PLAN (APP)

Prepare APP using format in Appendix MINIMUM BASIC OUTLINE FOR ACCIDENT PREVENTION PLAN of COE EM 385-1-1. See Appendix ACCIDENT PREVENTION PROVISIONS FOR CONTRACTORS AND IDENTIFIED GOVERNMENT ACTIVITIES of COE CESAJR 385-1-1 for additional detail.

#### 1.6.1 Contents

- 1. Signature Sheet
- 2. Background Information
- 3. Statement of Safety and Health Policies
- 4. Responsibilities, Lines of Authorities
- 5. Subcontractors and Suppliers
- 6. Training
- 7. Safety and Health Inspections
- 8. Safety and Health Expectations, Incentive Programs
- 9. Accident Reporting
- 10. Medical Support
- 11. Personal Protective Equipment
- 12. Supplemental ("Tabbed") Work Specific Plans required by COE EM 385-1-1
- 13. Supplemental Information on how Contractor will meet major applicable portions of COE EM 385-1-1

### 1.6.2 Tabbed APP Appendices

Submit tabbed appendices to Accident Prevention Plan including: Activity Hazard Analyses; Jacksonville District work plans and applicable supplementary specific plans; and, procedures listed in Appendix A, paragraph PLANS (PROGRAMS, PROCEDURES) REQUIRED BY THE SAFETY MANUAL of COE EM 385-1-1 or COE CESAJR 385-1-1 Appendices.

## 1.6.2.1 Jacksonville District Required Work Plans

Jacksonville District Required Work Plans include:

- Tab A Activity Hazard Analysis Worksheets
- Tab B Employee Safety and Health Indoctrination and Training (See sample ESHI appended to the end of this Section)
  - Tab C Hazard Communication
  - Tab D Hurricane and Severe Storm Plan
  - Tab E Emergency Response Plan

SHORELINE STABILIZATION PROJECT VIRGINIA KEY, DADE COUNTY, FLORIDA

Tab F - Dive Plan

Tab G - Critical Lift Planning Procedure and Policy

Tab H - Spill Response

## 1.6.2.2 Supplementary Plans in COE EM 385-1-1

Submit additional tabbed supplementary plans listed in Appendix A, paragraph PLANS (PROGRAMS, PROCEDURES) REQUIRED BY THE SAFETY MANUAL of COE EM 385-1-1 that are applicable to work as follows:

Access and Haul Road Plan

## 1.7 ACTIVITY HAZARD ANALYSES (AHA)

Submit AHAs as a tabbed APP Appendix. See Figure ACTIVITY HAZARD ANALYSIS of COE EM 385-1-1 for sample form. Contractor can download activity hazard analysis form (MS Word file) at Jacksonville District's Construction web page, "QC Forms":

http://www.saj.usace.army.mil/conops/construction/construction\_forms.htm. Describe activity being performed; sequence of work; specific hazards anticipated; control measures to eliminate or reduce each hazard to acceptable levels; training requirements for all involved; and, competent person in charge of that work.

## 1.8 SAFETY AND HEALTH INDOCRTRINATION AND TRAINING

Submit Safety and Health Indoctrination and Training Plan as an APP tabbed appendix in accordance with paragraph INDOCTRINATION AND TRAINING of Section PROGRAM MANAGEMENT of COE EM 385-1-1. Provide a sample Employee Health and Safety Indoctrination (EHSI) Sheet.

### 1.8.1 New Employee Indoctrination

Describe new employee indoctrination and training required to be completed prior to an employee working on site. Document employee orientation. Keep records on file at project site or nearest office. Each employee shall sign an ESHI sheet. Sample form is on the web site indicated in the paragraph CONSTRUCTION FORMS AND DETAILS below.

# 1.8.2 Visitor Briefing

Describe procedures for safety briefing site visitors. Train them on specific site hazards, site safety controls (i.e., hard-hat areas). Provide needed protective clothing (i.e., hard hats, reflective vest) and equipment (i.e., ear plugs, safety glasses) before they enter construction limits. Document visitor briefing with a file and visitor sign-in log on site. Report visitors in QC daily report.

# 1.9 HAZARD COMMUNICATION

Comply with OSHA 1910.1200 (the Hazard Communication Standard) and provide a Hazard Communication Plan describing implementation of the standard. Ensure site personnel including subcontractor employees, visitors, Contracting Officer personnel are informed about health and physical

hazards associated with materials being used. Provide a hazardous materials inventory to Contracting Officer upon request. Ensure proper labeling of hazardous material containers. Ensure Material Safety Data Sheets are on site.

### 1.10 HURRICANE AND SEVERE STORM PLAN

Submit proposed procedures to be taken to prevent: injury; damage to materials, equipment, and completed construction; and, minimize delays due to severe weather. A sample format is provided on the web site indicated in paragraph CONSTRUCTION FORMS AND DETAILS below:

### a. Address following conditions:

Hurricanes - Preparations prior to forecasted hurricane at 72 hours, 48 hours and 6 hours prior to predicted storm arrival.

Tornado/Water Spout - Actions to be taken for tornado warning and tornado warnings.

Thunderstorms/Squalls - Actions to be taken for high winds, lightning, heavy rainfall.

### b. Include:

- 1. Provide detailed descriptions for actions to be taken.
- 2. The time intervals before storms when action will be taken for each type hazard.
- 3. List of equipment to be used on the project and its ability to handle adverse weather.
  - 4. Method of securing equipment.
  - 5. Methods of securing equipment not moved.
- 6. Plan of evacuation to include immediate reaction plans to be taken for all storm occurrences, particularly sudden storms.
- 7. A statement that full time monitoring of NOAA marine weather broadcasts or other local commercial weather forecasting services will be the Contractor's primary source of information in the decision process to implement action under severe weather plan.

## 1.11 EMERGENCY RESPONSE PLAN

Describe planned response procedures and planned drills as applicable for medical, fire fighting, injury evacuation, wildfire. Submit certificates or wallet cards for designated First Aid and Coronary Pulmonary Resuscitation (CPR) responders. Provide planned communication methods to monitor employees working in remote areas. Provide sample posting sheets for local emergency responder phone numbers, reporting instructions, strip map to nearest medical treatment facility. Provide site sketch of location

of first aid kits and fire extinguishers.

### 1.12 DIVE PLAN

See paragraph DIVE OPERATIONS below and Appendix CONTRACT DIVING OPERATIONS of COE CESAJR 385-1-1. Dive planning is required on all projects with work on, adjacent to or over water; see paragraph DIVING OPERATIONS below. The dive plan shall address all requirements of Section CONTRACT DIVING OPERATIONS of COE EM 385-1-1, and Appendix CONTRACT DIVING OPERATIONS of COE CESAJR 385-1-1.

## 1.13 CRITICAL LIFT PLANNING PROCEDURE AND POLICY

Critical lift is defined in paragraph "Equipment operation" of Section MACHINERY AND MECHANIZED EQUIPMENT of COE EM 385-1-1. In accordance with paragraph "Critical lift plans" of Section MACHINERY AND MECHANIZED EQUIPMENT of COE EM 385-1-1, each critical lift requires a load and lift specific critical lift plan to be developed during preparatory phase. A critical lift plan is required whenever crane loads meet or exceed 75 percent of crane load capacity in any configuration. Describe who is responsible to identify such lifts, what procedures will be performed to prepare, review and approve critical lift plans, when critical lift plans will be submitted to Contracting Officer. Provide qualifications of persons identifying and overseeing critical lifts.

#### 1.14 SPILL RESPONSE PLAN

Provide information on hazardous chemicals and liquids anticipated to be stored on site and how Contractor proposes to contain spills, safely respond and clean up spills. Describe planning, controls, personal protective equipment and clean-up procedures.

### 1.15 SAFETY OFFICER

Designate an on-site Safety Officer to manage accident prevention program. Safety Officer or assistant shall be on site during all work. [Safety Officer may not have other duties in addition to Safety Officer.] Safety Officer shall report to and work directly for Contractor's on-site top manager (or higher level official) or corporate safety officer. Safety Officer shall be authorized to take immediate steps to correct unsafe and unhealthful conditions. Submit Safety Officer's resume of qualifications and job description within 20 days after Notice of Award.

## 1.15.1 Safety Officer Qualifications

Safety Officer shall have a minimum of Three years construction site experience on similar projects with experience as site safety specialist or Safety Officer. Safety Officer shall be qualified and have ability to manage on-site Contractor safety program, identify hazards and identify resources necessary to reduce hazards. Must have worked on similar types of projects and completed an OSHA training qualification class of at least 30 hours of classroom instruction within the last three years and competent person training as needed. To be credited for satisfying experience requirements, a minimum 50 percent of the time shall have been devoted to

safety and occupational health work. First aid work is not creditable.

#### 1.16 DISTRICT SAFETY PROGRAM

# 1.16.1 Site Safety Inspections by District Personnel

District Safety Office personnel perform periodic safety inspections on contract work sites as a staff function on behalf of District Engineer. District Construction Quality Assurance personnel periodically inspect plant, equipment and contract sites and evaluate safety as part of District construction program. Inspectors evaluate how well both District personnel and Contractor are complying with requirements in COE EM 385-1-1, COE CESAJR 385-1-1, approved Accident Prevention Plan and supplements. Inspector reports will be submitted to Contracting Officer's Representative. Contractor will be notified of both accomplishments and deficiencies by Contracting Officer's Representative. Promptly correct deficiencies, document corrections and notify Contracting Officer.

# 1.16.2 Safety Pays Program

Safety Pays is described in COE CESAJP 385-1-2 located on Jacksonville District web site shown in paragraph SAFETY MANUALS above. Safety Pays is an incentive safety program where both Contractor and Contracting Officer's personnel are recognized for efforts to provide safer working environment.

#### 1.17 MEETINGS

## 1.17.1 Phase Meetings

Refer to Section 01451 CONTRACTOR QUALITY CONTROL. Activity Hazard Analysis for each definable feature of work shall be reviewed and personnel attendance documented by Contractor. Examination of safety controls equipment is on-going in follow-up phase and progress meetings.

## 1.17.2 Supervisor Weekly Safety Meetings

Hold weekly meeting with on-site supervisors, foremen and QC Staff, at project site. Supervisor meeting shall address prevention of accidents, lessons learned, items of concern. Attach minutes with Contract number, signatures of attendees, and a list of topics discussed to the Contractor Quality Control Daily Report.

# 1.17.3 Weekly "Tool Box Meeting"

Hold a brief weekly meeting with all on-site personnel before start of work shift on a safety subject planned to prevent problems. For example, if hot weather is expected, discuss heat stress prevention and treatment. Report subject and number of employees attending on the Contractor Quality Control Daily Report.

### 1.18 DISPLAY OF SAFETY INFORMATION

Refer to Section 01500 TEMPORARY CONSTRUCTION FACILITIES. Provide a bulletin board to display following for viewing by on-site construction

### personnel:

- a. Poster "Safety and Health Protection On the Job" required by Department of Labor, OSHA.
  - b. Emergency phone numbers.
  - c. Strip map with route to nearest emergency care facility.
  - d. Accident Reporting and Workman's Compensation information.
  - e. Applicable Activity Hazard Analyses (AHA).

### 1.18.1 Placarding

- a. Safety Scoreboard Sign.
- b. Provide a sign indicating number of days since last lost time injury (refer to Section 01500 TEMPORARY CONSTRUCTION FACILITIES).

#### 1.19 SITE SAFETY REFERENCE MATERIALS

Maintain safety-related references applicable to project including: equipment operating manuals; manufacturer catalogs; Material Safety Data Sheets (MSDSs) on-site. (Refer to Clause HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL SAFETY DATA (CESAJ ADAPTATION) of Section 00800 SPECIAL REQUIREMENTS.) Maintain one copy of APP with AHA and supplemental plans required by the contract.

### 1.20 REPORTS

# 1.20.1 Complaints and Accident Investigation

Contracting Officer will investigate complaints of unsafe or unhealthful working conditions received from Contractor employees or others.

Contracting Officer will assign personnel to investigate serious accidents.

Contractor will be notified of investigation results.

## 1.20.2 Accident Reports

Designate individual to track exposure data (hours worked); perform accident investigations; prepare reports and logs; and, notify Contracting Officer of accidents (to include subcontractors). Conduct accident investigations to establish causes for accidents and injuries. For an accident or work related illness which results in a lost workday or over \$2,000 in property damage, notify Contracting Officer's Representative within one work day providing information in paragraph "Notification" below. Complete Accident Investigation Report (ENG FORM 3394) and provide completed report to Contracting Officer within 5 work days of accident. For fatal accident, over \$200,000 damage, three or more persons hospitalized, or any accident which may result in adverse publicity to Corps Of Engineers, immediately notify Contracting Officer's Representative and District Safety Office using phone and fax numbers provided at Preconstruction Conference. Submit completed ENG 3394 as soon as possible

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after initial phone or fax notification. Accident Investigation Report form (ENG FORM 3394) and instructions for completing form are at http://www.usace.army.mil/inet/usace-docs/forms/.

#### 1.20.3 Notification

Notify Contracting Officer with following information:

Contractor Name
Contract Number and Title
Type of contract
Location where accident occurred
Date and time of accident
Names of personnel injured
Extent of injury and property damage
A brief description of accident (to include type of construction equipment used, PPE used, etc.).

### 1.20.4 Monthly Exposure Report

Submit a monthly exposure report to Contracting Officer. Exposure report is a total of employee-hours worked each month for all site workers, both prime and subcontractor.

### 1.20.5 Crane Notification

Notify Contracting Officer at least 10 working days prior to bringing crane equipment on-site so Contracting Officer may arrange for additional quality assurance checks.

## PART 2 PRODUCTS

### 2.1 FIRST AID KITS

Furnish one 16-unit first aid kit per 25 employees, inspect weekly for supplies and note on inspection form located at kit.

# 2.2 PORTABLE FIRE EXTINGUISHERS

Portable fire extinguishers shall be located and used in accordance with paragraph FIRST RESPONSE FIRE PROTECTION of Section FIRE PREVENTION AND PROTECTION of COE EM 385-1-1, inspected monthly, maintained, and recharged as specified in NFPA 10.

# PART 3 EXECUTION

## 3.1 EMERGENCY MEDICAL TREATMENT

Contractor shall arrange with local authorities for emergency medical response, treatment and evacuation. Provide first aid kits in areas of work and inspect weekly to ensure stockage. Provide 2 personnel trained in first aid and CPR for each shift in accordance with paragraph GENERAL of Section MEDICAL AND FIRST AID REQUIREMENTS of COE EM 385-1-1.

### 3.2 ACCIDENT PREVENTION

Comply with COE EM 385-1-1, NFPA 241, approved APP, AHA, and other related submittals. Contractor shall become familiar with safety requirements in Clause ACCIDENT PREVENTION of Section 00700 CONTRACT CLAUSES; COE EM 385-1-1; COE CESAJP 385-1-2, and latest OSHA standards, applicable U.S. Coast Guard safety regulations, and applicable State of Florida laws and regulations and local fire and safety regulations. Contractor shall have full knowledge of personal protective equipment to be provided workmen and applicable safety standards. COE EM 385-1-1 and COE CESAJR 385-1-1 are consistent with OSHA Construction Safety and Health Regulations 29 CFR 1926. For operations not covered under COE EM 385-1-1 or COE CESAJR 385-1-1, OSHA standards shall be complied with. When there is no OSHA standard, comply with Department of the Army, Department of Defense, U.S. Coast Guard or National Consensus Standards (e.g., API - American Petroleum Institute). Contractor shall only use plant and equipment in compliance with contract safety requirements.

## 3.3 OIL AND HAZARDOUS MATERIAL SPILLS AND CONTAINMENT

Report all spills to Contracting Officer immediately. Clean-up spills in accordance with COE EM 385-1-1 and MSDSs. Use dikes, curbs to prevent spread of oil or hazardous materials from storage tanks and piping leaks. Comply with Section 01355 ENVIRONMENTAL PROTECTION reporting.

### 3.4 DIVING OPERATIONS

Submit a Dive Operations Plan when work is performed adjacent to, on or over water. No matter if a dive is actually planned or only required as a contingency (i.e., most dredging projects) submit a Diving Operations Plan for Contracting Officer's approval. Dive Operations Plan shall cover all requirements in Section CONTRACT DIVING OPERATIONS of COE EM 385-1-1 and Appendix CONTRACT DIVING OPERATIONS of COE CESAJR 385-1-1. Dive Operations Plan consists of a "Safe Practices Manual" describing Contractor's diving program and a "Dive Plan" describing site specific information of proposed dive or contingency dive. Safe Practices Manual, Dive Plan and revisions shall have cover sheets signed and dated by Contractor. When diving is subcontracted, cover sheets shall also be signed and dated by diving contractor's principal or authorized representative.

# 3.4.1 Dive Operations Reviewer

Dive Operation Plans shall be submitted by Contractor to Contracting Officer in accordance with Section 01330 SUBMITTAL PROCEDURES. Dive Operations Plans are reviewed by Jacksonville District Diving Coordinator. A copy of the Dive Operation Plan shall be furnished to:

U.S. Army Corps of Engineers, Jacksonville District ATTN: CESAJ-CO-CQ (Mr. Tappmeyer or Mr. Vecchitto) P.O. Box 4970 Jacksonville, FL 32232-0019

Diving Coordinator fax is 904-232-3696.

## 3.4.2 Dive Operations Execution

Execute dives in accordance with approved Dive Operations Plan submittal; Section CONTRACT DIVING OPERATIONS of COE EM 385-1-1; and, Appendix CONTRACT DIVING OPERATIONS of COE CESAJR 385-1-1. Contractor shall submit completed daily dive logs at the end of each dive day. Daily dive logs shall be faxed to District Dive Coordinator 904-232-3696 or his authorized representative. Contractor shall use COE form ENG 4615 and ENG 4616 to record daily diving activities. Dive forms may be downloaded from Jacksonville Construction-Operations web site at: http://www.saj.usace.army.mil/conops/diving/DistrictDiving.html.

#### 3.5 PERSONNEL PROTECTION

Designate and mark safety zones requiring personal protection. Examples include hard hat zone, areas where eye and hearing protection is required.

#### 3.5.1 Hazardous Noise

Provide hazardous noise signs, and hearing protection, wherever equipment and work procedures produce sound-pressure levels greater than 85 dBA steady state or 140 dBA impulse, regardless of duration of exposure.

## 3.6 ELECTRICAL WORK

Underground electrical spaces shall be certified safe for entry before entering to conduct work. Cable intended to be cut must be positively identified and de-energized prior to performing each cut. Positive cable identification must be made prior to submitting any outage request for electrical systems. Arrangements are to be coordinated with Contracting Officer and utility owner for identification. No outage request will be accepted until Contractor satisfactorily documents circuits have been clearly identified. In walls or concealed areas use non-conductive fish tape to pull wire. Perform all high voltage cutting remotely. When racking in or live switching of circuit breakers, no additional person other than the switch operator will be allowed in the space during the actual operation. Plan so that work near energized parts is minimized to the fullest extent possible. Use of electrical outages clear of any energized electrical sources is the preferred method. When working in energized substations, only qualified electrical workers shall be permitted to enter. When work requires Contractor to work near energized circuits as defined by NFPA 70, high voltage personnel must use personal protective equipment that includes, as a minimum, electrical hard hat, safety shoes, insulating gloves with leather protective sleeves, fire retarding shirts, coveralls, face shields, and safety glasses. Insulating blankets, hearing protection, and switching suits may be required, depending on the specific job and as delineated in the Contractor AHA.

### 3.7 HOUSEKEEPING

### 3.7.1 Clean-up

All debris in work areas shall be cleaned up daily or more frequently as necessary. Construction debris may be temporarily located in an approved

location; however, garbage accumulation must be removed each day.

#### 3.7.2 Dust Control

In addition to the dust control measures required elsewhere in contract documents, dry cutting of brick or masonry shall be prohibited. Wet cutting must address control of water run off.

### 3.8 ACCIDENT SCENE PRESERVATION

For serious accidents and accidents involving weight handling equipment, ensure the accident site is secured and evidence is protected remaining undisturbed until released by the Contracting Officer.

### 3.9 QUALITY CONTROL

Quality Control and Safety are supporting complimentary functions. Include safety activities and documentation of meetings and site safety inspection as a part of Quality Control activities and QC Daily report required in Section 01451 CONTRACTOR QUALITY CONTROL.

### 3.10 SAFE ACCESS AND FALL PROTECTION

Furnish ladders, nets, guard rails and other required fall protection equipment to provide safe access and fall protection in accordance with Section SAFE ACCESS AND FALL PROTECTION of COE EM 385-1-1. Furnish personal protective equipment of body harnesses, lanyards, lifelines in accordance with subparagraph "Lineman's equipment" of Section PERSONAL PROTECTIVE AND SAFETY EQUIPMENT of COE EM 385-1-1. Furnish safety and debris nets designed and tested in accordance with paragraph SAFETY AND DEBRIS NETS - DESIGN AND TESTING of Section PERSONAL PROTECTIVE AND SAFETY EQUIPMENT of COE EM 385-1-1. Identify features of work and work areas with high falling risk requiring fall protection. Examples include: work above six feet; work on scaffolding; work near edges or penetrations of floors; roofs or decks; steel erection; overhead electrical work; dredging; work with construction lift equipment. In preparatory phase review activity hazard analysis, required equipment, employee supervision and supervisor inspection of equipment. In initial phase provide employee training and perform supervisor inspection of PPE and other fall protection equipment. During follow-up phase perform on going supervision and inspection by supervisors, safety and quality control staff.

## 3.10.1 Fall Protection Training

Train employees exposed to fall hazards in use of PPE, hazard identification, avoidance, and policy to correct hazards. Train Supervisors to inspect fall protection equipment and supervise work to reduce fall risks.

## 3.11 ACCESS AND HAUL ROADS ADJACENT TO CANALS

For each project involving canal hazards, submit an APP, access and haul road plan, and AHA that identify and provide control measures for canal hazards. The Contractor shall ensure that access and haul road plan

complies with COE EM 385-1-1, and includes items indicated below. Construct access and haul roads in accordance with the paragraph HAUL ROADS of Section 01500 TEMPORARY CONSTRUCTION FACILITIES and COE EM 385-1-1.

### 3.11.1 Inspection

Inspect access and haul roads, submitting the safety checklist developed by the SOH office, and revise the access and haul road plan when additional haul and access road hazards are identified at the project site.

### 3.11.2 Signs and Barriers

Indicate proposed placement of signs, barriers and speed limits in APP. Place sufficient signs and barriers to indicate the drop-off hazard posed by an adjacent canal. See MUTCD, PART 6 for guidance on signs. Place stop signs at all intersections. Place speed limit signs approaching and after intersections, before curves, and otherwise every half mile. Place U-channel steel posts with highly visible flagging or reusable polypropylene fabric fencing along the edge of each access or haul road adjacent to a canal. The distance between posts shall be sufficient to support the fabric (if used) or no greater than indicated in the paragraph HAUL ROADS of Section 01500 TEMPORARY CONSTRUCTION FACILITIES.

## 3.11.3 Equipment and Vehicles

Ensure safety and escape features on all equipment and vehicles are operational.

### 3.11.4 Briefings and Enforcement

Brief every employee during orientation and toolbox meetings about recognizing and controlling canal hazards, using the APP, access and haul road plan, and AHA for work on roads adjacent to canals. Inform all employees that while operating equipment and vehicles, they shall not engage in any activity (eating, drinking, smoking, use of cell phone, etc.) that would interfere with safe operation. Inform all employees operating equipment and vehicles that they will be subject to disciplinary action, including termination, if cited for speeding and other reckless driving. Include a plan in the APP for monitoring construction traffic for speeding and other reckless driving.

### 3.12 CONSTRUCTION FORMS AND DETAILS

From the Jacksonville District Home Page, click the links ORGANIZATIONS, ENGINEERING, then CONSTRUCTION FORMS AND DETAILS. See web site address www.saj.usace.army.mil/cadd/end/construction forms\_and\_details.htm.

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