SECTION 01 35 26

GOVERNMENTAL SAFETY REQUIREMENTS

PART 1 GENERAL

1.1 REFERENCES

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

AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS (ASHRAE)

ASHRAE 52.2	(2017) Method of Testing General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size

AMERICAN SOCIETY OF SAFETY PROFESSIONALS (ASSP)

ANSI/ASSP A10.34	(2021) Protection of the Public on or Adjacent to Construction Sites
ANSI/ASSP A10.44	(2020) Control of Energy Sources (Lockout/Tagout) for Construction and Demolition Operations
ANSI/ASSP A10.8	(2019) Scaffolding Safety Requirements

ASTM INTERNATIONAL (ASTM)

ASTM D6245	(2012) Using Indoor Carbon Dioxide Concentrations to Evaluate Indoor Air Quality and Ventilation
ASTM D6345	(2010) Standard Guide for Selection of Methods for Active, Integrative Sampling of Volatile Organic Compounds in Air
ASTM F855	(2020) Standard Specifications for Temporary Protective Grounds to Be Used on De-energized Electric Power Lines and Equipment

INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE)

IEEE 1048	(2016) Guide for Protective Grounding of Power Lines
IEEE C2	(2023) National Electrical Safety Code

INTERNATIONAL SAFETY EQUIPMENT ASSOCIATION (ISEA)

ANSI/ISEA Z89.1	(2014; R 2019) American National Standard for Industrial Head Protection

Japanese Standards Association (JSA)

JIS A 8951	(1995) Tubular Steel Scaffolds

MINISTRY OF HEALTH, LABOUR AND WELFARE, GOVERNMENT OF JAPAN (MHLW)

MHLW	(1972) Amendment No. 57 - 2006 Industrial Safety and Health Law
ORDINANCE NO. 34	(1972) The Safety Ordinance for Cranes
ORDINANCE NO. 47	(2007) Ordinance on Industrial Safety and Health

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 51B	(2024) Standard for Fire Prevention During Welding, Cutting, and Other Hot Work
NFPA 70	(2023; ERTA 7 2023; TIA 23-15) National Electrical Code
NFPA 70E	(2024) Standard for Electrical Safety in the Workplace
NFPA 241	(2022) Standard for Safeguarding Construction, Alteration, and Demolition Operations
NFPA 306	(2024) Standard for the Control of Gas Hazards on Vessels

SHEET METAL AND AIR CONDITIONING CONTRACTORS' NATIONAL ASSOCIATION (SMACNA)

ANSI/SMACNA 008	(2007) IAQ Guidelines for Occupied Buildings Under Construction, 2nd Edition

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1	Safety -- Safety and Health Requirements Manual

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

29 CFR 1910	Occupational Safety and Health Standards
29 CFR 1910.1000	Air Contaminants
29 CFR 1915	Confined and Enclosed Spaces and Other Dangerous Atmospheres in Shipyard Employment
29 CFR 1926	Safety and Health Regulations for Construction
CPL 2.100	(1995) Application of the Permit-Required Confined Spaces (PRCS) Standards, 29 CFR 1910.146

1.2 DEFINITIONS

The following definitions are for the convenience of the reader. If there is a referenced document in the text of this specification section, that is the document that should define terms for that paragraph. If further clarification is needed, contact the Contracting Officer.

1.2.1 Site Safety and Health Officer (SSHO)

A Contractor Employee that is responsible for overseeing and ensuring implementation of the prime Contractor's Safety and Occupational Health (SOH) program according to the Contract, EM 385-1-1, Chapter 2 applicable federal, state, and local requirements.

1.2.1.1 Level One SSHO

A designated employee with full-time SOH responsibility that meets and follows the requirements of EM 385-1-1, Chapter 2-3. In conjunction with the local Safety and Occupational Health Office (SOHO), the Contracting Officer will evaluate proposed Japanese equivalent training for applicability to the contract scope of work being performed.

1.2.1.2 Level Two SSHO

A designated employee with Level Two SSHO responsibility that meets and follows the requirements of EM 385-1-1, Chapter 2-3. Level Two SSHOs cannot be assigned to projects that have a residual Risk Assessment Code (RAC) of high or extremely high.

1.2.1.3 Level Three SSHO

A designated Qualified Person or Competent Person with SOH responsibility that meets and follows the requirements of EM 385-1-1, Chapter 2-3. Level 3 SSHOs cannot be assigned to projects that have a residual RAC of high or extremely high.

1.2.1.4 Alternate SSHO

An employee that meets the definition of the contract-required level SSHO, but is not the primary SSHO.

1.2.2 Competent Person (CP)

The CP is a person designated in writing, who, through training, knowledge and experience, is capable of identifying, evaluating, and addressing existing and predictable hazards in the working environment or working conditions that are unsanitary, hazardous, or dangerous to personnel, and who has authorization to take prompt corrective measures to eliminate them.

1.2.3 Qualified Person (QP)

The QP is a person designated in writing, who, by possession of a recognized degree, certificate, or professional standing, or extensive knowledge, training, and experience, has successfully demonstrated their ability to solve or resolve problems related to the subject matter, the work, or the project.

1.3 SUBMITTALS

Government Acceptance or Approval does not remove responsibility from the Contractors for their actions or liability.

Government approval is required for submittals with a "G" classification. Submittals not having a "G" classification are for information only. Submittals not having a "G" classification are for Contractor Quality Control or Designer of Record approval. When used, a code following the "G" classification identifies the office that will review the submittal for the Government. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Accident Prevention Plan (APP); G

Dive Operations Plan; G

[Final IAQ Management Plan; S

] Indoor Air Quality (IAQ) Management Plan; G

SD-06 Test Reports

Accident Reports; G

LHE Inspection Reports

Monthly Exposure Reports; G

SD-07 Certificates

Crane Operators/Riggers

Activity Hazard Analysis (AHA); G

Certificate of Compliance

Hot Work Permit

Standard Lift Plan; G

Certifications

Licenses

1.4 PUBLIC HEALTH EMERGENCIES

In the event of a declared public health emergency, follow safety precautions as required by installation emergency management requirement.

1.5 MONTHLY EXPOSURE REPORTS

Provide a Monthly Exposure Report and attach to the monthly billing request. This report is a compilation of employee-hours worked each month for all site workers, both Prime and subcontractor. Failure to submit the report may result in retention of up to 10 percent of the voucher. Monthly exposure reports are to be tracked and generated through RMS.

1.6 REGULATORY REQUIREMENTS

In addition to the detailed requirements included in the provisions of this Contract, comply with the most recent edition of USACE EM 385-1-1, MHLW Lawsand follow host nation laws, ordinances, criteria, rules and regulations at the date of the Solicitation for this Contract. Submit matters of interpretation of standards to the appropriate administrative agency for resolution before starting work. Where the requirements of this specification, applicable laws, criteria, ordinances, regulations, and referenced documents vary, the most stringent requirements govern.

1.7 SITE QUALIFICATIONS, DUTIES, AND MEETINGS

1.7.1 Site Safety and Health Officer (SSHO)

1.7.1.1 Qualifications of SSHO

All SSHOs will have met the training, experience requirements identified in the EM 385-1-1, Chapter 2 and this Contract. In conjunction with the local Safety and Occupational Health Office (SOHO), the Contracting Officer will evaluate proposed Japanese equivalent training for applicability to the contract scope of work being performed.

1.7.1.2 Duties of SSHO

All SSHOs will carry out the roles and responsibilities as identified in this Contract and the EM 385-1-1, Chapter 2. All SSHOs will be designated on an ENG Form 6282, as approved by the Contracting Officer. Superintendent, QC Manager, and SSHO are subject to dismissal if their required duties are not being effectively carried out. If either the Superintendent, QC Manager, or SSHO are dismissed, project work will be stopped and will not be allowed to resume until a suitable replacement is approved and the above duties are again being effectively carried out.

1.7.1.3 Safety Meetings

Conduct safety meetings to review past activities, plan for new or changed operations, review pertinent aspects of appropriate AHA (by trade), establish safe working procedures for anticipated hazards, and provide pertinent Safety and Occupational Health (SOH) training and motivation. Conduct meetings at least once a month for all supervisors at the project location. The SSHO, supervisors, or foremen must conduct meetings at least once a week for the trade workers. Document meeting minutes to include the date, persons in attendance, subjects discussed, and names of individual(s) who conducted the meeting. Maintain documentation on-site and furnish copies to the Contracting Officer on request. Notify the Contracting Officer of all scheduled meetings 7 calendar days in advance.

1.7.2 Roles and Responsibilities of Prime Contractor and SSHO

The Prime Contractor and SSHO must ensure that the requirements of all applicable OSHA and EM 385-1-1, Chapter 2 are met for the project. The Prime Contractor must ensure an SSHO or an equally qualified Alternate SSHO(s) is at the worksite at all times to implement and administer the Contractor's safety program and Government accepted Accident Prevention Plan. If the required SSHO has to temporarily (that is, up to 24 hours / 1 day) leave the site of work due to unforeseen or emergency situations, a Level One, Two, or Three SSHO may be used in the interim and must be on

the site of work at all times when work is being performed. For features of work with work with multiple high or extremely high RAC codes, a Level One SSHO or Alternate Level One SSHO presence is required on site at all times the work is being performed.

If the SSHO must be off-site for a period longer than 24 hours / 1 day, a qualified alternate that meets the contract requirements must be onsite.

a. Prime contractor must ensure all SSHOs will:

(1) Are designated on an ENG Form 6282.

(2) Meet minimum training and experience requirements identified in EM 385-1-1, Chapter 2.

(3) Execute roles and responsibilities identified in EM 385-1-1, Chapter 2.

[1.7.3 Contract Site Safety And Health Officer(s)(SSHOs) Minimum Requirements

Provide a minimum of one Level One SSHO that meets the requirements of EM 385-1-1, Chapter 2 for this project.

][1.7.4 Contract Site Safety and Health Officer(s)(SSHOs) Minimum Requirements for Projects with[Multiple Work Sites,][Multiple Shifts,][Limited Scope,][or Maintenance, or Service Contracts].

Provide a separate full-time Level [One][Two][Three] SSHO at each of the following worksites:

a. [INDICATE WORKSITE LOCATION] Level [One][Two][Three] SSHO

b. [INDICATE WORKSITE LOCATION] Level [One][Two][Three] SSHO

c. [INDICATE WORKSITE LOCATION] Level [One][Two][Three] SSHO

The SSHOs for the worksites listed above must each have the required training, experience, and qualifications in accordance with EM 385-1-1, Chapter 2.

Each SSHO is responsible for implementing and managing the Safety and Occupational Health (SOH) program at the worksite indicated, while ensuring that the 29 CFR 1926, EM 385-1-1, Contracts, and all applicable federal, state, and Local requirements are met.

]1.7.5 Dredging Contract Site Safety and Health Officer(s)(SSHOs) Requirements

Since dredging typically involves underwater diving, refer to EM 385-1-1, Chapter 30 and Section 01 11 30.00 25 DIVING for additional guidance.

1.7.5.1 Dredging SSHO Personnel Requirements

a. Provide a minimum of one primary Level One SSHO assigned for the primary shift.

Note: Hopper Dredges with U.S. Coast Guard, credentialed crews the prime contractor may designate a Level Two SSHO in lieu of having a

Level one SSHO onboard.

b. For a project involving multiple work shifts, provide a minimum of a Level[One][Two] SSHO for each additional shift.

c. For individual dredging projects the prime contractor will designate additional Level Three SSHOs at locations where the primary Level One SSHO is not located (example: on dredge, tug, material placement site).

Examples of one dredging project site is reflected in each of the following:

(1) a mechanical dredge, tug(s) and scow(s), scow route, and material placement site; or

(2) a hydraulic pipeline dredge, attendant plant, and material placement site; or,

(3) a hopper dredge (include land-based material placement site - if applicable.)

d. Designated SSHOs must be present at the project site, located so that they have full mobility and reasonable access to all major work operations and must be available during their shift for immediate verbal consultation and notification.

e. Designated Level One and Two SSHOs must have direct report authority to a senior project (or corporate) management official.

f. Designated Level Three SSHOs must report potential safety and occupational health hazards, incidents, and concerns to the Level One or Two SSHO on shift.

g. Level One and Level Two SSHOs for dredging must have a minimum of 3 years experience in one of the following areas:

(1) Supervising/managing dredging activities.

(2) Supervising/managing marine construction activities.

(3) Supervising/managing land-based construction activities.

(4) Work managing safety programs or processes.

(5) Conducting hazard analyses and developing controls in activities or environments with similar hazards.

1.7.6 Competent Person for Confined Space Entry

Provide a CP for Confined Space Entry who meets the requirements of EM 385-1-1, Chapter 34 and herein. The CP for Confined Space Entry must supervise the entry into each confined space.

[Since this work involves operations that handle combustible or hazardous materials, this person must have the ability to understand and follow through on the air sampling, Personal Protective Equipment (PPE), and instructions of a Marine Chemist, Coast Guard authorized persons, or Certified Industrial Hygienist. Confined space and enclosed space work must comply with NFPA 306, 29 CFR 1915, "Confined and Enclosed Spaces and

Other Dangerous Atmospheres in Shipyard Employment," or as applicable in 29 CFR 1910 for general industry, 29 CFR 1926 for construction.]

1.7.7 Crane Operators/Riggers

Provide Operators meeting the requirements in EM 385-1-1, Chapter 15 for Riggers and Chapter 16 for Crane Operators. In addition, for mobile cranes with Original Equipment Manufacturer (OEM) rated capacities of 22,680 kg or greater, designate crane operators qualified by a source that qualifies crane operators (i.e., union, a Government agency, or an organization that tests and qualifies crane operators). Provide proof of current qualification.

1.7.7.1 Load Handling Equipment Operator Accepted Alterative

The Commander, POJ, has determined that there are adequate provisions provided under the Government of Japan (GOJ) Ordinance to achieve the required protections for crane operator licensing and practical training requirements employed as part of contracted activities provided for USACE within the locality of Japan. Reference POJ-SO decision memorandum, subject, Alternate Requirement Analysis - Load Handling Equipment, Qualifications, dated 8 January 2020.

Provisions within the JISHA (ORDINANCE NO. 34) Articles 223-228 provide sufficient confirmation of an operator's certification/qualification and practical training to achieve the intent of EM 385-1-1, Chapter 16-3.

JISHA (ORDINANCE NO. 34) Articles 223 establishes the Director of the Prefectural Labour Bureau as the licensing authority. Based upon this Article the Ministry of Labour is the recognized auditor, established for local accreditation of certification and training programs.

1.7.8 Preconstruction Conference

a. Contractor representatives who have a responsibility or significant role in accident prevention on the project must attend the preconstruction conference. This includes the project superintendent, Site Safety and Occupational Health Officer, quality control manager, or any other assigned safety and health professionals who participated in the development of the APP (including the Activity Hazard Analyses (AHAs) and special plans, program and procedures associated with it).

b. Discuss the details of the submitted APP to include incorporated plans, programs, procedures, and a listing of anticipated AHAs that will be developed and implemented during the performance of the Contract. This list of proposed AHAs will be reviewed and an agreement will be reached between the Contractor and the Contracting Officer as to which phases will require an analysis. In addition, establish a schedule for the preparation, submittal, and Government review of AHAs to preclude project delays. The creation of the APP and Schedule will be created after being given Notice to Proceed.

c. Deficiencies in the submitted APP, identified during the Contracting Officer's review, must be corrected, and the APP re-submitted for review prior to the start of construction. Work is not permitted to begin until an APP is established that is acceptable to the Contracting Officer.

1.8 ACCIDENT PREVENTION PLAN (APP)

1.8.1 Design Accident Prevention Plan (APP)

Provide a site-specific Accident Prevention Plan (APP), including Activity Hazard Analyses (AHA), in accordance with EM 385-1-1, ENG Form 6293, for the design team to follow during site visits and investigations. For subsequent visits, update the plan if there are changes in the personnel who will be attending, or the tasks to be performed. Submit the APP for review and acceptance by the Government at least 15 calendar days prior to the start of the design field work after being given Notice to Proceed. Field work must not begin until the design APP is accepted by the Contracting Officer. Prior to the start of construction incorporate the Design APP into the Construction APP so that one site specific APP exists for the project and submit to the Contracting Officer for acceptance.

If the design scope includes borings or other subsurface investigations, include in the APP the type of field investigation and verification techniques, such as visual, local utility locating service scanning and third party subcontractor scanning, potholing, or hand digging within two feet of a known utility that will be required. Mark underground utilities before starting any ground-disturbing actions. Notify the Contracting Officer 15 days prior to the start of soil borings or sub-surface investigations.

1.8.2 [Construction] Accident Prevention Plan (APP)

Submit the Accident Prevention Plan (APP) for review and acceptance by the Government at least 15 calendar days prior to the start, after being given Notice to Proceed. A competent person must prepare the written site-specific APP. Prepare the APP in accordance with the format and requirements of EM 385-1-1, ENG Form 6293, and herein. The APP must be job-specific and address any unusual or unique aspects of the project or activity for which it is written. The APP must interface with the Contractor's overall safety and occupational health program referenced in the APP in the applicable APP element, and made site-specific. Describe the methods to evaluate past safety performance of potential subcontractors in the selection process. Also, describe innovative methods used to ensure and monitor safe work practices of subcontractors. The Government considers the Prime Contractor to be the "controlling employer" for all worksite safety and health of the subcontractors. Contractors are responsible for informing their subcontractors of the safety provisions under the terms of the Contract and the penalties for noncompliance, coordinating the work to prevent one craft from interfering with or creating hazardous working conditions for other crafts, and inspecting subcontractor operations to ensure that accident prevention responsibilities are being carried out. The APP must be signed in accordance with ENG Form 6293 Accident Prevention Plan Worksheet. The SSHO must provide and maintain the APP and a log of signatures by each subcontractor foreman, attesting that they have read and understand the APP, and make the APP and log available on-site to the Contracting Officer. If English is not the foreman's primary language, the Prime Contractor must provide an interpreter.

Submit the APP to the Contracting Officer as attachment 01 35 26-A "ACCIDENT PREVENTION PLAN (APP) WORKSHEET; ENG Form 6293" 15 calendar days prior to the date of the preconstruction conference for acceptance. Work cannot proceed without an accepted APP. Once reviewed and accepted by the Contracting Officer, the APP and attachments will be enforced as part of

the Contract. Disregarding the provisions of this Contract or the accepted APP is cause for stopping of work, at the discretion of the Contracting Officer, until the matter has been rectified. Continuously review and amend the APP, as necessary, throughout the life of the Contract. Changes to the accepted APP must be made with the knowledge and concurrence of the Contracting Officer, project superintendent, SSHO and Quality Control Manager. Incorporate unusual or high-hazard activities not identified in the original APP as they are discovered. Should any severe hazard exposure (i.e., imminent danger) become evident, stop work in the area, secure the area, and develop a plan to remove the exposure and control the hazard. Notify the Contracting Officer within 24 hours of discovery. Eliminate and remove the hazard. In the interim, take all necessary action to restore and maintain safe working conditions in order to safeguard onsite personnel, visitors, the public (as defined by ANSI/ASSP A10.34), and the environment.

Copies of the accepted APP shall be maintained at the resident engineer's office and at the job site. Continuously review and amend the APP, as necessary, throughout the life of the contract. Incorporate unusual or high-hazard activities not identified in the original APP as discovered.

1.8.3 Names and Qualifications

Provide plans in accordance with the requirements outlined in EM 385-1-1, including the following:

a. Names and qualifications (resumes including education, training, experience and certifications) of site safety and health personnel designated to perform work on this project to include the designated Site Safety and Health Officer and other competent and qualified personnel to be used. Specify the duties of each position.

b. As a minimum, designate and submit qualifications of Competent Persons (CP) for each of the following major areas: excavation; scaffolding; fall protection; hazardous energy; confined space; health hazard recognition, evaluation and control of chemical, physical and biological agents; and personal protective equipment and clothing to include selection, use and maintenance. Designate and submit qualifications for additional CPs as applicable to the work performed under this Contract.

1.8.4 Plans

Provide plans in the APP in accordance with the requirements outlined in EM 385-1-1, including the following:

[1.8.4.1 Lead, Cadmium, and Chromium Compliance Plan

Identify the safety and health aspects of work involving lead, cadmium and chromium, and prepare in accordance with Section 02 83 00 LEAD REMEDIATION.

][1.8.4.2 Asbestos Hazard Abatement Plan

Identify the safety and health aspects of asbestos work, and prepare in accordance with Section 02 82 00 ASBESTOS REMEDIATION.

][1.8.4.3 Site Safety and Health Plan

Identify the safety and health aspects, and prepare in accordance with

Section 01 35 29.13 HEALTH, SAFETY, AND EMERGENCY RESPONSE PROCEDURES FOR CONTAMINATED SITES.

][1.8.4.4 Polychlorinated Biphenyls (PCB) Plan

Identify the safety and health aspects of Polychlorinated Biphenyls work, and prepare in accordance with Sections 02 84 33 REMOVAL AND DISPOSAL OF POLYCHLORINATED BIPHENYLS (PCBs) and 02 61 23 REMOVAL AND DISPOSAL OF PCB CONTAMINATED SOILS.

][1.8.4.5 Site Demolition Plan

Identify the safety and health aspects, and prepare in accordance with Section 02 41 00 [DEMOLITION] [AND] [DECONSTRUCTION] and referenced sources.

]1.9 ACTIVITY HAZARD ANALYSIS (AHA)

Before beginning each activity, task or Definable Feature of Work (DFOW) 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 Contractor(s) performing that work activity must prepare an AHA. AHAs must be developed by the Prime Contractor, subcontractor, or supplier performing the work, and provided for Prime Contractor review and approval before submitting to the Contracting Officer. AHAs must be signed by the SSHO, Superintendent, QC Manager and the subcontractor Foreman performing the work. Format the AHA in accordance with EM 385-1-1, Chapter 2 or as directed by the Contracting Officer. Submit the AHA for review at least 15 working days prior to the start of each activity task, or DFOW. The Government reserves the right to require the Contractor to revise and resubmit the AHA if it fails to effectively identify the work sequences, specific anticipated hazards, site conditions, equipment, materials, personnel and the control measures to be implemented.

AHAs must identify competent persons required for phases involving high risk activities, including confined entry, crane and rigging, excavations, trenching, electrical work, fall protection, and scaffolding.

1.9.1 AHA Management

Review the AHA list periodically (at least monthly) at the Contractor supervisory safety meeting, and update as necessary when procedures, scheduling, or hazards change. Use the AHA during daily inspections by the SSHO to ensure the implementation and effectiveness of the required safety and health controls for that work activity.

1.9.2 AHA Signature Log

Each employee performing work as part of an activity, task or DFOW must review the AHA for that work and sign a signature log specifically maintained for that AHA prior to starting work on that activity. The SSHO must maintain a signature log on site for every AHA. Provide employees whose primary language is other than English, with an interpreter to ensure a clear understanding of the AHA and its contents.

1.10 SITE SAFETY REFERENCE MATERIALS

Maintain safety-related references applicable to the project, including

those listed in paragraph REFERENCES. Maintain applicable equipment manufacturer's manuals.

1.11 EMERGENCY MEDICAL TREATMENT

Contractors must arrange for their own emergency medical treatment in accordance with EM 385-1-1. The Government has no responsibility to provide emergency medical treatment.

1.12 NOTIFICATIONS AND REPORTS

1.12.1 Accident Notification

Notify the Contracting Officer in accordance with the EM 385-1-1 Accident Reporting Timeline.

Table
Accident Reporting Required Timeline

Accident Type	Notify KO or COR	Complete Final Accident Report on ENG 3394 and provide to KO or COR
Fatality, in-patient hospitalization, amputation, eye loss, or property damage over $600,000.	Immediately, no later than (NLT) 8 Hours	Within 7 Days
All other accidents and near misses	Immediately, no later than (NLT) 24 Hours	Within 7 Days

Within notification include Contractor name; Contract title; type of Contract; name of activity, installation or location where accident occurred; date and time of accident; names of personnel injured; extent of property damage, if any; extent of injury, if known, and brief description of accident (for example, type of construction equipment used and PPE used). Preserve the conditions and evidence on the accident site until the Government investigation team arrives on-site and Government investigation is conducted. Assist and cooperate fully with the Government's investigation(s) of any accident or near miss.

1.12.2 Accident Reports

a. Conduct an accident investigation for recordable injuries and illnesses, property damage, and near misses as defined in EM 385-1-1 to establish the root cause(s) of the accident. All accidents are reportable, regardless of whether or not it is recordable. Complete the applicable USACE Accident Report, ENG Form 3394, and provide the report to the Contracting Officer within 7 calendar days of the accident. The Contracting Officer will provide copies of any required or special forms. All accidents are reportable, regardless of whether or not it is recordable.

b. Near Misses: Report all "Near Misses" to the Contracting Officer, using local accident reporting procedures, within 24 hours. The Contracting Officer will provide the Contractor the required forms.

Near miss reports are considered positive and proactive Contractor safety management actions.

1.12.3 LHE Inspection Reports

Submit LHE inspection reports required in accordance with EM 385-1-1 and as specified herein with Daily Reports of Inspections.

1.12.4 Certificate of Compliance and Pre-lift Plan/Checklist for LHE and Rigging

Provide a Certificate of Compliance for LHE entering an activity under this Contract and in accordance with EM 385-1-1, Chapter 16-10, paragraph b (16-10.b). Post certifications on the crane.

Develop a Standard Lift Plan (SLP) in accordance with EM 385-1-1, Chapter 16-10, paragraph a (16-10.a) and using Standard Pre-Lift Crane Plan/Checklist for each lift planned. Submit SLP to the Contracting Officer for approval within 15 calendar days in advance of planned lift.

1.13 HOT WORK PERMIT

1.13.1 Permit and Personnel Requirements

Submit and obtain a written permit prior to performing "Hot Work" (i.e. welding or cutting) or operating other flame-producing/spark producing devices, from the Installation Fire Department. Contractors are required to meet all criteria before a permit is issued. Provide at least two (2) 9kg 4A:20 BC rated extinguishers for normal "Hot Work". Extinguishers shall be current inspection tagged, and have approved safety pin and tamper resistant seal. It is also mandatory to have a designated FIRE WATCH for any "Hot Work" done at this activity. The Fire Watch shall be trained in accordance with NFPA 51B and remain on-site for a minimum of one hour after completion of the task or as specified on the hot work permit.

When starting work in the facility, require personnel to familiarize themselves with the location of the nearest fire alarm boxes and place in memory the emergency Base Fire Department phone number. Report any fire, no matter how small, to the responsible Base Fire Department immediately.

1.13.2 Work Around Flammable Materials

Obtain permit approval from a NFPA Certified Marine Chemist, or Certified Industrial Hygienist for "Hot Work" within or around flammable materials (such as fuel systems or welding/cutting on fuel pipes) or confined spaces (such as sewer wet wells, manholes, or vaults) that have the potential for flammable or explosive atmospheres.

Whenever these materials, except beryllium and chromium (VI), are encountered in indoor operations, local mechanical exhaust ventilation systems that are sufficient to reduce and maintain personal exposures to within acceptable limits must be used and maintained in accordance with manufacturer's instruction and supplemented by exceptions noted in EM 385-1-1, Chapter 6.

1.14 RADIATION SAFETY REQUIREMENTS

Notwithstanding any other hazardous material used in this Contract,

radioactive materials or instruments capable of producing ionizing/non-ionizing radiation (with the exception of radioactive material and devices used in accordance with EM 385-1-1 such as nuclear density meters for compaction testing and laboratory equipment with radioactive sources) as well as materials which contain asbestos, mercury or polychlorinated biphenyls, di-isocyanates, lead-based paint, and hexavalent chromium, are prohibited. The Contracting Officer, upon written request by the Contractor, may consider exceptions to the use of any of the above excluded materials. Low mercury lamps used within fluorescent lighting fixtures are allowed as an exception without further Contracting Officer approval. The Contractor shall request approval in writing to the Contracting Officer not less than thirty (30) calendar days in advance of any request for exception. Following Contracting Officer approval of any radiation related exception, the Contractor shall coordinate with the Contracting Officer's Representative at least fifteen (15) calendar days in advance to notify the Radiation Safety Officer (RSO) prior to excepted items of radioactive material and devices being brought on base.

1.15 CONFINED SPACE ENTRY REQUIREMENTS

Confined space entry must comply with EM 385-1-1, Chapter 34, 29 CFR 1926, 29 CFR 1910, Host Nation, local regulatory requirements and Directive CPL 2.100. Any potential for a hazard in the confined space requires a permit system to be used. Obtain written permission from the Contracting Officer prior to confined space entry by personnel.

1.15.1 Rescue Procedures and Coordination with Local Emergency Responders

Develop and implement an on-site rescue and recovery plan and procedures. The rescue plan must not rely on local emergency responders for rescue from a confined space.

1.16 CONSTRUCTION INDOOR AIR QUALITY (IAQ) MANAGEMENT PLAN

Submit an IAQ Management Plan [within [15][_____] calendar days after design[Contract award][notice to proceed] and not less than 10 calendar days before the preconstruction conference.][not less than 10 calendar days before the preconstruction conference.] Revise and resubmit Plan as required by the Contracting Officer. Make copies of the final plan available to all workers on site. Include provisions in the Plan to meet the requirements specified below and to ensure safe, healthy air for construction workers and building occupants.[Submit Final IAQ Management Plan for inclusion in the Sustainability eNotebook, in accordance with Section 01 33 29 SUSTAINABILITY REQUIREMENTS AND REPORTING.]

1.16.1 Requirements During Construction

Provide for evaluation of indoor Carbon Dioxide concentrations in accordance with ASTM D6245. Provide for evaluation of volatile organic compounds (VOCs) in indoor air in accordance with ASTM D6345. Use filters with a Minimum Efficiency Reporting Value (MERV) of 8 in permanently installed air handlers during construction.

1.16.1.1 Control Measures

Meet or exceed the requirements of ANSI/SMACNA 008 to help minimize contamination of the building from construction activities. The five requirements of this manual which must be adhered to are described below:

a. HVAC protection: Isolate return side of HVAC system from surrounding environment to prevent construction dust and debris from entering the duct work and spaces.

b. Source control: Use low emitting paints and other finishes, sealants, adhesives, and other materials as specified. When available, cleaning products must have a low VOC content and be non-toxic to minimize building contamination. Utilize cleaning techniques that minimize dust generation. Cycle equipment off when not needed. Prohibit idling motor vehicles where emissions could be drawn into building. Designate receiving/storage areas for incoming material that minimize IAQ impacts.

c. Pathway interruption: When pollutants are generated use strategies such as 100 percent outside air ventilation or erection of physical barriers between work and non-work areas to prevent contamination.

d. Housekeeping: Clean frequently to remove construction dust and debris. Promptly clean up spills. Remove accumulated water and keep work areas dry to discourage the growth of mold and bacteria. Take extra measures when hazardous materials are involved.

e. Scheduling: Control the sequence of construction to minimize the absorption of VOCs by other building materials.

1.16.1.2 Moisture Contamination

a. Remove accumulated water and keep work dry.

b. Use dehumidification to remove moist, humid air from a work area.

c. Do not use combustion heaters or generators inside the building.

d. Protect porous materials from exposure to moisture.

e. Remove and replace items which remain damp for more than a few hours.

1.16.2 Requirements After Construction

After construction ends and prior to occupancy, conduct a building flush-out or test the indoor air contaminant levels. Flush-out must be a minimum 2 weeks with MERV-13 filtration media as determined by ASHRAE 52.2 at 100 percent outside air. Air contamination testing must be consistent with EPA's current Compendium of Methods for the Determination of Air Pollutants in Indoor Air. After building flush-out or testing and prior to occupancy, replace filtration media. Filtration media must have a MERV of 13 as determined by ASHRAE 52.2.

1.17 DIVE SAFETY REQUIREMENTS

Develop a Dive Operations Plan, AHA, emergency management plan, and personnel list that includes qualifications, for each separate diving operation in accordance with Section 01 11 30.00 25 Diving. Submit these documents to the District Dive Coordinator (DDC) via the Contracting Officer, for review and approval at least 30 working days prior to commencement of diving operations. These documents must be at the diving location at all times. Provide each of these documents as a part of the project file.

1.18 SEVERE STORM PLAN

In the event of a severe storm warning, the Contractor must comply with the applicable Storm Plan and:

a. Secure outside equipment and materials and place materials that could be damaged in protected areas.

b. Check surrounding area, including roof, for loose material, equipment, debris, and other objects that could be blown away or against existing facilities.

c. Ensure that temporary erosion controls are adequate.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.1 CONSTRUCTION AND OTHER WORK

Comply with EM 385-1-1, NFPA 70, NFPA 70E, NFPA 241, the APP, the AHA, Federal and State OSHA regulations, and other related submittals and activity fire and safety regulations. The most stringent standard prevails.

PPE is governed in all areas by the nature of the work the employee is performing. Use personal hearing protection at all times in designated noise hazardous areas or when performing noise hazardous tasks. Safety glasses must be worn or carried/available on each person. Mandatory PPE includes:

a. Head Protection that meets ANSI/ISEA Z89.1

b. Long Pants

c. Appropriate Safety Footwear

d. Appropriate Class Reflective Vests

3.1.1 Worksite Communication

Employees working alone in a remote location or away from other workers must be provided an effective means of emergency communications (i.e., cellular phone, two-way radios, land-line telephones or other acceptable means). The selected communication must be readily available (easily within the immediate reach) of the employee and must be tested prior to the start of work to verify that it effectively operates in the area/environment. Develop an employee check-in/check-out communication procedure to ensure employee safety.

3.1.2 Hazardous Material Exclusions

Notwithstanding any other hazardous material used in this Contract, radioactive materials or instruments capable of producing ionizing/non-ionizing radiation (with the exception of radioactive material and devices used in accordance with EM 385-1-1 such as nuclear

density meters for compaction testing and laboratory equipment with radioactive sources) as well as materials which contain asbestos, mercury or polychlorinated biphenyls, di-isocyanates, lead-based paint, and hexavalent chromium, are prohibited. The Contracting Officer, upon written request by the Contractor, may consider exceptions to the use of any of the above excluded materials. Low mercury lamps used within fluorescent lighting fixtures are allowed as an exception without further Contracting Officer approval. The Contractor shall request approval in writing to the Contracting Officer not less than thirty (30) calendar days in advance of any request for exception. Following Contracting Officer approval of any radiation related exception, the Contractor shall coordinate with the Contracting Officer's Representative at least fifteen (15) calendar days in advance to notify the Radiation Safety Officer (RSO) prior to excepted items of radioactive material and devices being brought on base.

3.1.3 Unforeseen Hazardous Material

Contract documents identify materials such as PCB, lead paint, and friable and non-friable asbestos and other OSHA regulated chemicals (i.e., 29 CFR 1910.1000). If material(s) that may be hazardous to human health upon disturbance are encountered during demolition, repair, renovation, or construction operations. Stop that portion of work and notify the Contracting Officer immediately. Within [14][_____] calendar days the Government will determine if the material is hazardous. If material is not hazardous or poses no danger, the Government will direct the Contractor to proceed without change. If material is hazardous and handling of the material is necessary to accomplish the work, the Government will issue a modification.

3.2 UTILITY OUTAGE REQUIREMENTS

Apply for utility outages at least [sixty (60)][_____] days in advance. At a minimum, the written request must include the location of the outage, utilities being affected, duration of outage, any necessary sketches, and a description of the means to fulfill energy isolation requirements in accordance with EM 385-1-1, Chapter 12. In accordance with EM 385-1-1, Chapter 12 where outages involve Government or Utility personnel, coordinate with the Government on all activities involving the control of hazardous energy.

These activities include, but are not limited to, a review of Hazardous Energy Control Program (HECP) and HEC procedures, as well as applicable Activity Hazard Analyses (AHAs). In accordance with EM 385-1-1 and NFPA 70E, work on energized electrical circuits must not be performed without prior Government authorization. Government permission is considered through the permit process and submission of a detailed AHA. Energized work permits are considered only when de-energizing introduces additional or increased hazard or when de-energizing is infeasible.

3.2.1 Okinawa Utility Outages

Outages (power, water, sewer, and communications) for the following listed dates, times, and locations shall not be permitted during the performance of this Contract, unless approved by the authorized agent of the Installation Commander and Contracting Officer's Representative:

a. DoDEA Schools: No outages from 01 September through 31 July, Monday through Friday between the hours of 0700 and 1800.

b. Family Housing Areas: No outages will be allowed on Saturdays when DoDEA schools are not in session. No more than two (2) outages for the same utility service shall be allowed in a one-month period (30 calendar days), and no more than one (1) outage in a two-week period (14 calendar days).

c. U.S. Government Holidays: No outages during the following periods:

(1) New Year's Day - to include seven (7) calendar days before and one (1) calendar day after this date (contiguous with the Christmas Day outage requirement).

(2) Martin Luther King's Birthday - to include the following Tuesday.

(3) President's Day - to include the following Tuesday.

(4) Memorial Day - to include the following Tuesday.

(5) Juneteenth - to include one (1) calendar day before and after this date.

(6) Independence Day - to include one (1) calendar day before and after this date.

(7) Labor Day - to include the following Tuesday.

(8) Columbus Day - to include the preceding Friday.

(9) Veteran's Day - to include two (2) calendar days before and after this date.

(10) Thanksgiving Day - to include one (1) calendar day before and after this date.

(11) Christmas Day - to include seven (7) calendar days before and after this date (contiguous with the New Year's Day outage requirement).

d. Child Development Centers (CDC): Outages allowed only when the CDC is closed or on Sundays.

e. Marine Corps Bases: No outages during Marine Corps Balls or Change of Commands which are normally scheduled between 20 October and 21 November. Specific dates and locations shall be provided during or subsequent to the Preconstruction Conference.

f. Kadena Air Base: No outages during Change of Commands. Specific dates and locations shall be provided during or subsequent to the Preconstruction Conference.

g. Torii Station: No outages during Change of Commands. Specific dates and locations shall be provided during or subsequent to the Preconstruction Conference.

3.2.2 Reimbursement for Public Works Support of Electrical Outages

The Contractor shall reimburse the NAF Atsugi Public Works Department for its costs to prepare for, support, and recover from Contractor requested

utility outages associated with this work. Public Works efforts include setting up generators, securing elevators and securing utilities before the outage, and restoring these systems after the outage. The work includes resetting steam systems, air conditioning systems, hot water systems and electrical systems. Outages during the heating and cooling season cost $1,369 to support during normal working hours, and $3,200 during overtime hours. Outages in the spring and fall, between heating and cooling seasons, cost $1,150 to support during normal working hours, and $2,696 during overtime hours.

3.3 OUTAGE COORDINATION MEETING

After the utility outage request is approved and prior to beginning work on the utility system requiring shut-down, conduct a pre-outage coordination meeting in accordance with EM 385-1-1, Chapter 12. This meeting must include the Prime Contractor, the Prime and subcontractors performing the work, the Contracting Officer, and the Installation representative. All parties must fully coordinate HEC activities with one another. During the coordination meeting, all parties must discuss and coordinate on the scope of work, HEC procedures (specifically, the lock-out/tag-out procedures for worker and utility protection), the AHA, assurance of trade personnel qualifications, identification of competent persons, and compliance with HECP training in accordance with EM 385-1-1, Chapter 12. Clarify when personal protective equipment is required during switching operations, inspection, and verification.

3.4 CONTROL OF HAZARDOUS ENERGY (LOCKOUT/TAGOUT)

Provide and operate a Hazardous Energy Control Program (HECP) in accordance with EM 385-1-1, Chapter 12 29 CFR 1910, 29 CFR 1915, ANSI/ASSP A10.44, NFPA 70E.

3.4.1 Safety Preparatory Inspection Coordination Meeting with the Government or Utility

For electrical distribution equipment that is to be operated by Government or Utility personnel, the Prime Contractor and the subcontractor performing the work must attend the safety preparatory inspection coordination meeting, which will also be attended by the Contracting Officer's Representative, and required by EM 385-1-1, Chapter 12. The meeting will occur immediately preceding the start of work and following the completion of the outage coordination meeting. Both the safety preparatory inspection coordination meeting and the outage coordination meeting must occur prior to conducting the outage and commencing with lockout/tagout procedures.

3.4.2 Lockout/Tagout Isolation

Where the Government or Utility performs equipment isolation and lockout/tagout, the Contractor must place their own locks and tags on each energy-isolating device and proceed in accordance with the HECP. Before any work begins, both the Contractor and the Government or Utility must perform energy isolation verification testing while wearing required PPE detailed in the Contractor's AHA and required by EM 385-1-1, Chapter 12. Install personal protective grounds, with tags, to eliminate the potential for induced voltage in accordance with EM 385-1-1, Chapter 12.

3.4.3 Lockout/Tagout Removal

Upon completion of work, conduct lockout/tagout removal procedure in accordance with the HECP. In accordance with EM 385-1-1, Chapter 12, each lock and tag must be removed from each energy isolating device by the authorized individual or systems operator who applied the device. Provide formal notification to the Government (by completing the Government form if provided by Contracting Officer's Representative), confirming that steps of de-energization and lockout/tagout removal procedure have been conducted and certified through inspection and verification. Government or Utility locks and tags used to support the Contractor's work will not be removed until the authorized Government employee receives the formal notification.

3.5 FALL PROTECTION PROGRAM

Establish a fall protection program, for the protection of all employees exposed to fall hazards. Within the program include company policy, identify roles and responsibilities, education and training requirements, fall hazard identification, prevention and control measures, inspection, storage, care and maintenance of fall protection equipment and rescue and evacuation procedures in accordance with EM 385-1-1, Chapter 21.

3.5.1 Fall Protection Equipment and Systems

Enforce use of personal fall protection equipment and systems designated (to include fall arrest, restraint, and positioning) for each specific work activity in the Site Specific Fall Protection and Prevention Plan and AHA at all times when an employee is exposed to a fall hazard. Protect employees from fall hazards as specified in EM 385-1-1, Chapter 21-4.

Provide personal fall protection equipment, systems, subsystems, and components that comply with EM 385-1-1 and 29 CFR 1926.

3.5.1.1 Additional Personal Fall Protection Measures

In addition to the required fall protection systems, other protective measures such as safety skiffs, personal floatation devices, and life rings, are required when working above or next to water in accordance with EM 385-1-1, Chapter 21-8.t. Personal fall protection systems and equipment are required when working from an articulating or extendible boom, swing stages, or suspended platform. In addition, personal fall protection systems are required when operating other equipment such as scissor lifts. The need for tying-off in such equipment is to prevent ejection of the employee from the equipment during raising, lowering, travel, or while performing work.

3.5.1.2 Personal Fall Protection Equipment

Only a full-body harness with a shock-absorbing lanyard or self-retracting lanyard is an acceptable personal fall arrest body support device. The use of body belts is not acceptable. Harnesses must have a fall arrest attachment affixed to the body support (usually a Dorsal D-ring) and specifically designated for attachment to the rest of the system. Snap hooks and carabineers must be self-closing and self-locking, capable of being opened only by at least two consecutive deliberate actions and have a minimum gate strength of 1633 kg in all directions. Use webbing, straps, and ropes made of synthetic fiber. The maximum free fall distance when using fall arrest equipment must not exceed 1.8 m, unless the proper

energy absorbing lanyard is used. Always take into consideration the total fall distance and any swinging of the worker (pendulum-like motion), that can occur during a fall, when attaching a person to a fall arrest system. Equip all full body harnesses with Suspension Trauma Preventers such as stirrups, relief steps, or similar in order to provide short-term relief from the effects of orthostatic intolerance in accordance with EM 385-1-1, Chapter 21-8.t.

3.6 SCAFFOLDING ACCEPTED ALTERNATIVE

The Commander, POJ, has determined that there are adequate provisions provided under the Government of Japan Ordinance to achieve the required protections for supported metal scaffolding employed as part of contracted activities provided for U.S. Army Corps of Engineers (USACE) within the locality of Japan. Reference POJ-SO decision memorandum, subject, Alternate Requirement Analysis - Scaffolding Standards Review, dated 24 September 2019.

This determination only includes supported metal scaffolding structures and does not include other forms of scaffolding methods included in EM 385-1-1, Chapter 22.

JISHA requirements for steel scaffolding structures to conform to the Japanese Industrial Standard JIS A 8951 are comparable to those of ANSI/ASSP A10.8, providing sufficient protection required to achieve the provisions of EM 385-1-1, Chapter 22.

3.7 RIGGING ACCEPTED ALTERNATIVE

The Commander, POJ, has determined that there are adequate provisions provided under the Government of Japan (GOJ) Ordinance, which warrant a partial acceptance for rigging procedures and rigging equipment, employed as part of contracted activities provided for USACE within the locality of Japan. Reference POJ-SO decision memorandum, subject, Alternate Requirement Analysis - Rigging Requirements and Procedures, dated 15 January 2020.

This acceptance excludes Multiple Lift Rigging (MLR) procedures as well as standards for all hooks used for lifting or load handling purposes. MLR and hooks used for load handling purposes will adhere to the respective sections of the EM 385-1-1, Chapter 15 without exception.

Accepted standards include, JISHA ORDINANCE NO. 34, "The Safety Ordinance for Cranes", Chapter VIII Sling Work, Section 1 Slinging Equipment Articles 213-220. Also referenced, is the JISHA's "Guideline for sling work safety (2000)".

3.8 EXCAVATIONS

Soil classification shall be performed by a competent person in accordance with EM 385-1-1, Chapter 25.

3.8.1 Excavations and Trenching Accepted Alterative

The Commander, POJ, has determined that there are adequate provisions provided under the Government of Japan Ordinance to achieve the required protections for excavation and trenching systems including shoring, shielding, and engineered designed systems employed as part of contracted activities provided for USACE within the locality of Japan. Reference

POJ-SO decision memorandum, subject, Alternate Requirement Analysis - Excavation and Trenching Review, dated 7 November 2019.

This determination only includes excavation and trenching systems including shoring, shielding, and engineered designed systems where the manufactures or a registered professional engineer's tabulated data has been employed.

Provisions within JISHA ORDINANCE NO. 47, Articles 368-371 provide sufficient protection required to achieve the provisions of EM 385-1-1, Chapter 25-2, paragraph j (25-2.j). JISHA ORDINANCE NO. 47 instructions included in Articles 368-371 conform with the provisions for manufactured shoring/shielding and engineered designed support systems including material serviceability, structural design, and erection/installation. These provisions provided sufficient protection required to achieve the provisions of EM 385-1-1, Chapter 25-2, paragraph j (25-2.j).

3.8.2 Utility Locations

The Contractor shall positively identify underground utilities in the work area and coordinate with the installation utility department. The Contractor shall obtain digging permits prior to start of excavation by contacting the Contracting Officer at least fifteen (15) calendar days in advance.

3.8.3 Utility Location Verification

The Contractor shall scan the construction site with electromagnetic or sonic equipment, and mark the surface of the ground where existing underground utilities are discovered. Verify the elevations of existing piping, utilities, and any type of underground or encased obstruction not indicated to be specified or removed, but indicated or discovered during scanning in locations to be traversed by piping, ducts, and other work to be conducted or installed. Verify elevations before installing new work closer than nearest manhole or other structure at which an adjustment in grade can be made. Physically verify underground utility locations, including utility depth, by hand digging using wood or fiberglass handled tools when any adjacent construction work is expected to come within one meter of the underground system.

3.8.4 Utilities Within and Under Concrete, Bituminous Asphalt, and Other Impervious Surfaces

Utilities located within and under concrete slabs or pier structures, bridges, parking areas, and the like, are extremely difficult to identify. Whenever Contract work involves chipping, saw cutting, or core drilling through concrete, bituminous asphalt or other impervious surfaces, the existing utility location must be coordinated with installation utility departments in addition to location and depth verification by the Contractor. The Contractor shall locate utility depth by use of Ground Penetrating Radar (GPR), X-ray, bore scope, or ultrasound prior to the start of demolition and construction. Outages to isolate utility systems must be used in circumstances where utilities are unable to be positively identified. The use of historical drawings does not alleviate the Contractor from meeting this requirement.

3.8.5 Munitions and Explosives of Concern (MEC)

Munitions and Explosives of Concern (MEC): Unexploded Ordinance (UXO),

Material Presenting a Potential Explosive Hazard (MPPEH), Chemical Agents (CA), or Discarded Military Munitions (DMM) on jobsites shall be treated as extremely dangerous and must be reported immediately. Follow the 3Rs: RECOGNIZE, RETREAT, and REPORT.

3.8.5.1 Identification and Notification

If you encounter or suspect you have encountered MEC, the on-site supervisor shall immediately suspend all operations put at risk due to the suspected MEC identified. STOP WORK, and DO NOT TOUCH, mark the location, keep people out of the area, and report to the Government Designated Authority. Project personnel will withdraw along cleared path upwind 300 meters from the discovery or as determined by emergency responders.

The on-site supervisor shall contact the installation emergency services who will intern contact the appropriate Explosives Ordinance Disposal (EOD) unit. EOD will determine the threat and mitigate any immediate explosives hazard(s).

Where suspected MEC are encountered during construction operations and other activities, notify the Contracting Officer's Representative/Contracting Officer immediately. If no hazard is present or poses no danger, the Government will direct the Contractor to proceed without change after given the all clear from the emergency responders. If MEC are found the condition or probability of encountering MEC may also change. The responsible government authority will conduct a new probability assessment, this determination will be used to plan the level of support required and determine further requirements. Pursuant to FAR 52.243-4, "Changes" the Government may issue a modification.

3.8.6 Training

All workers on site involved in the earthwork, in any manner, must attend a UXO brief. Coordinate with Contracting Officer for scheduling of this Briefing. Upon completion of the brief, the worker will receive a laminated card verifying that they attended the brief. The card does not expire and is valid for all USACE construction contracts on Okinawa, but is non-transferrable between workers. The USACE team will help coordinate the training and assist with processing base access requests as needed. The brief is free of charge, but the contractor is responsible for all other costs associated with transport to Camp Foster, labor, and all other costs related to the training. The expected duration of this training is two hours.

3.9 EQUIPMENT

3.9.1 Use of Explosives

Explosives must not be used or brought to the project site without prior written approval from the Contracting Officer. Such approval does not relieve the Contractor of responsibility for injury to persons or for damage to property due to blasting operations.

Storage of explosives, when permitted on Government property, must be only where directed and in approved storage facilities. These facilities must be kept locked at all times except for inspection, delivery, and withdrawal of explosives.

3.10 ELECTRICAL

Perform electrical work in accordance with EM 385-1-1, Chapters 11 and 12.

3.10.1 Electrical Work

As described in EM 385-1-1, electrical work is to be conducted in a de-energized state unless there is no alternative method for accomplishing the work. In those cases obtain an energized work permit from the Contracting Officer. The energized work permit application must be accompanied by the AHA and a summary of why the equipment/circuit needs to be worked energized. Underground electrical spaces must be certified safe for entry before entering to conduct work. Cables that will be cut must be positively identified and de-energized prior to performing each cut. Attach temporary grounds in accordance with ASTM F855 and IEEE 1048. Perform all high voltage cable cutting remotely using hydraulic cutting tool. When racking in or live switching of circuit breakers, no additional person other than the switch operator is 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 are permitted to enter. When work requires 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 footwear, insulating gloves and electrical arc flash protection for personnel as required by NFPA 70E. Insulating blankets, hearing protection, and switching suits may also be required, depending on the specific job and as delineated in the Contractor's AHA. Ensure that each employee is familiar with and complies with these procedures and 29 CFR 1910and 29 CFR 1926.

3.10.1.1 Energized Electrical Work Permit (EEWP)

All equipment and circuits must be placed into an Establishing an Electrically Safe Working Condition (ESWC) must be de-energized before work is started unless energized work can be justified. A QP must complete and verify the following to establish electrically safe working condition in accordance with EM 385-1-1, paragraph 11-8.d unless the work meets the EEWP exemption located under EM 385-1-1, paragraph 11-8.e(5) or the host employer or system owner can show that there are additional hazards or an increased risk from de-energizing.

Hazardous Energy: Any energy including but not limited to mechanical (for example, power transmission apparatus, counterbalances, springs, pressure, gravity), pneumatic, hydraulic, electrical, stored electrical energy exists such as Uninterrupted Power Systems (UPS), chemical, nuclear, and thermal (for example, high or low temperature) energies, which could cause injury to employees.

Once it has been determined that equipment must be worked on in an energized condition, an EEWP must be submitted to the USACE supervisor/KO or COR and AHJ for acceptance. Do not perform energized work without prior authorization. All permits must be prepared, signed, and authorized in advance of performing any electrical work. A non-mandatory ENG Form 6277 (Energized Electrical Work Permit) is provided in EM 385-1-1, Chapter 11-10.

3.10.2 Qualifications

Electrical work must be performed by QP with verifiable credentials who are familiar with applicable code requirements. Verifiable credentials consist of State, National and Local Certifications or Licenses that a Master or Journeyman Electrician may hold, depending on work being performed, and must be identified in the appropriate AHA. Journeyman/Apprentice ratio must be in accordance with Host Nation requirements applicable to where work is being performed.

3.10.3 Arc Flash

Conduct a hazard analysis/arc flash hazard analysis whenever work on or near energized parts greater than 50 volts is necessary, in accordance with NFPA 70E.

All personnel entering the identified arc flash protection boundary must be QPs and properly trained in NFPA 70E requirements and procedures. Unless permitted by NFPA 70E, no Unqualified Person is permitted to approach nearer than the Limited Approach Boundary of energized conductors and circuit parts. Training must be administered by an electrically qualified source and documented.

3.10.4 Grounding

Ground electrical circuits, equipment and enclosures in accordance with NFPA 70 and IEEE C2 to provide a permanent, continuous and effective path to ground unless otherwise noted by EM 385-1-1.

3.10.5 Testing

Temporary electrical distribution systems and devices must be inspected, tested and found acceptable for Ground-Fault Circuit Interrupter (GFCI) protection, polarity, ground continuity, and ground resistance before initial use, before use after modification and at least monthly. Monthly inspections and tests must be maintained for each temporary electrical distribution system, and signed by the electrical CP or QP.

-- End of Section --