Chapter 1

Safety and Occupational Health Program Management for United States Army Corps of Engineers Personnel

This chapter applies to all U.S. Army Corps of Engineers (USACE) elements, major subordinate commands, districts, centers, laboratories, and field operating activities. This chapter provides the overall programmatic guidance for developing, managing, and implementing a Safety and Occupational Health (SOH) program. The requirements set forth in this chapter are the foundation for the USACE SOH program and must be carried through the additional chapters in this manual.

Note. The term Government Designated Authority (GDA) is no longer applicable within this manual. GDA has been replaced with the responsibility of the USACE supervisor.

1-1. References.

a. ANSI/ ASSP A10.33 Safety and Health Program Requirements for Multi-Employer Projects (https://webstore.ansi.org/) (1-1.a)

b. ANSI/ASSP Z490.1, Criteria for Accepted Practices in Safety, Health and Environmental Training (https://webstore.ansi.org/) (1-1.b)

c. AR 40-5, Army Public Health Program (https://armypubs.army.mil/ProductMaps/PubForm/AR.aspx) (1-1.c)

d. AR 385-10, The Army Safety and Occupational Health Program (https://armypubs.army.mil/ProductMaps/PubForm/AR.aspx) (1-1.d)

e. DA Pam 385-10, Army Safety Program and Occupational Health Program Procedures (https://armypubs.army.mil/ProductMaps/PubForm/PAM.aspx) (1-1.e)

f. DA Pam 385-40, Army Mishap Investigations and Reporting (https://armypubs.army.mil/ProductMaps/PubForm/PAM.aspx) (1-1.f)

g. DoDI 6055.1, DoD Safety and Occupational Health Program (https://www.esd.whs.mil/Directives/issuances/dodi) (1-1.g)

h. DoDI 6055.07, Mishap Notification, Investigation, Reporting, and Record Keeping (https://www.esd.whs.mil/Directives/issuances/dodi) (1-1.h)

i. DoDI 6055.12, Hearing Conservation Program (https://www.esd.whs.mil/directives/issuances/dodi/) (1-1.i)

j. Executive Order 12196, Occupational Safety and Health Programs for Federal Employees, February 26, 1980 (https://www.archives.gov/federal-register/codification/executive-order/12196.html) (1-1.j)

k. EM 5-1-11, Management Project Deliver Business Process (https://www.publications.usace.army.mil/Portals/76/Users/182/86/2486/EM%205-1-11.pdf?ver=0OD9KZCW2k2Q7AlN8MX57A%3d%3d) (1-1.k)

l. EP 385-1-99, Implementation of Accident Investigation and Reporting (https://www.publications.usace.army.mil/USACE-Publications/Engineer-Pamphlets/) (1-1.l)

m. ER 385-1-99, USACE Accident Investigation and Reporting (https://www.publications.usace.army.mil/USACE-Publications/Engineer-Regulations/) (1-1.m)

n. ES 16009, Corps of Engineers Safety and Occupational Health Management System (https://team.usace.army.mil/sites/HQ/SO/Pages/CESOHMS.aspx) (1-1.n)

o. 5 CFR 293, Personnel Records (https://www.govinfo.gov/content/pkg/CFR-2020-title5-vol1/pdf/CFR-2020-title5-vol1-part293.pdf) (1-1.o)

p. 29 CFR 1904, Recording and Reporting Occupational Injuries and Illnesses (https://www.govinfo.gov/content/pkg/CFR-2020-title29-vol5/pdf/CFR-2020-title29-vol5-part1904.pdf) (1-1.p)

q. 29 CFR 1910, Occupational Safety and Health Standards (https://www.govinfo.gov/app/collection/cfr) (1-1.q)

r. 29 CFR 1926, Safety and Health Regulations for Construction (https://www.govinfo.gov/app/collection/cfr) (1-1.r)

s. 29 CFR 1960, Basic Program Elements for Federal Employee Occupational Safety and Health Programs and Related Matters (https://www.govinfo.gov/content/pkg/CFR-2020-title29-vol9/pdf/CFR-2020-title29-vol9-part1960.pdf) (1-1.s)

t. 46 CFR Subpart 4.05, Notice of Marine Casualty and Voyage Records (https://www.govinfo.gov/content/pkg/CFR-2020-title46-vol1/pdf/CFR-2020-title46-vol1-part4-subpart4-05.pdf) (1-1.t)

u. 49 CFR 197.484, Notice of Casualty (https://www.govinfo.gov/content/pkg/CFR-2002-title46-vol7/pdf/CFR-2002-title46-vol7-sec197-484.pdf) (1-1.u)

1-2. Definitions.

a. Accident. Any unplanned event or series of events that results in death, injury, or illness to personnel, or damage to or loss of equipment or property. Within the context of this manual, accident is synonymous with mishap. (1-2.a)

b. Collateral Duty Safety Officer (CDSO). A designated USACE employee who is trained to assist with the SOH program as a minor duty (that is, 20% or less of the time). (1-2.b)

c. Competent Person (CP). One who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them. (1-2.c)

d. Contractor. Any individual or firm under contractual agreement with the government or its subunits for the performance of services and products, such as construction, maintenance, and hazardous waste activities, including all subcontractors. (1-2.d)

e. Employee. A government person engaged in work for USACE (including military, interns, students, etc.). (1-2.e)

f. Facility. A permanent or temporary location that includes the following: building, structure, shed, tower, utility support system or utility conveyance system, swimming pool or other open concrete structure, whether above or below grade, or any other item that is designated by the supervisor as a facility. (1-2.f)

g. Hazard. Any actual or potential condition that can cause injury, illness, or death of personnel, damage to or loss of equipment or property, or contribute to mission degradation. (1-2.g)

h. Imminent Danger. Any conditions or practices in a place of employment which are such that a danger exists which could reasonably be expected to cause death or serious physical harm immediately or before the imminence of such danger can be eliminated. (1-2.h)

i. Mishap. Within the context of this manual, mishap is synonymous with accident. See definition for accident in paragraph 1-2.a. (1-2.i)

j. Near Miss. A potentially serious accident that could have resulted in personal injury, death, or property damage, damage to the environment, or illness but did not occur due to one or more factors. (1-2.j)

k. Project Manager (PM). An individual assigned to achieve the project objectives. The PM manages the scope, schedule, budget, and quality while leading a project delivery team (PDT). PMs may be assigned to any organizational or geographic element. (1-2.k)

l. Qualified Person (QP). An individual who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training,

and experience, has successfully demonstrated the ability to solve or resolve problems relating to the subject matter, the work, or the project. (1-2.l)

m. Quality Assurance Representative (QAR). A Government employee (for example, construction representative) that assures end product quality, by monitoring the contractor's quality control (QC) activities and performing independent testing and/or inspections of contract work. (1-2.m)

n. Registered Professional Engineer (RPE). A person who has been duly and currently registered and who is licensed as a professional engineer by an authority (for example, state licensure board) within the United States or its territories to practice the profession of engineering. (1-2.n)

o. Residual Risk. The level of risk remaining after controls have been identified and countermeasures selected for hazards. Risks remaining after hazard mitigation measures have been applied. (1-2.o)

p. Risk Assessment Code (RAC). The conversion of the probability and severity of a given hazard into a specific risk level based on the residual risk. The levels of risk are extremely high (E), high (H), medium (M) and low (L). (1-2.p)

q. Risk Management. A business process that includes the identification, assessment, and prioritization of risks, followed by coordinated and economical application of resources to minimize, monitor, and control the probability and/or impact of unfortunate events to an acceptable level. (1-2.q)

r. Risk Matrix. A risk management tool that is used to determine the RAC for a specific work element and the overall RAC for the activity, task, or definable feature of work (DFOW). The risk matrix is used to evaluate the severity (that is, an approximate amount of potential harm, damage, or injury occurring) and probability (that is, likelihood of something happening) associated with a given accident, see paragraph 1-10.b. Severity is categorized as catastrophic, critical, moderate, or negligible. Probability is categorized as frequent, likely, occasional, seldom, or unlikely. (1-2.r)

s. Visitor. Anyone who is not assigned to work at the work site, either permanently or temporarily, that comes to the work site for short-term action (for example, inspections, meetings, deliveries). (1-2.s)

1-3. Personnel Required Qualification/Training.

a. General Employee-Required Qualifications and Training. The requirements in this paragraph apply to all trainings and qualifications outlined in this manual. See paragraph 3 of each chapter for applicable training and qualification requirements. (1-3.a)

(1) Supervisor must provide their employees all required SOH training as required by this manual, applicable federal, state, and local requirements.

(2) All SOH training must be conducted by QP or CP as required.

(3) Develop and deliver training according to ANSI Z490.1.

(4) Evaluate trainees to ensure they meet and understand the proposed objective(s).

(5) Document all training. Records must include the following:

(a) The date, location, and duration of the training.

(b) Name and description of the training.

(c) Name(s) of trainer(s).

(d) Training materials used.

(e) Name(s) of training participants.

(f) Evaluation of trainees to ensure they meet and understand the proposed objective(s). Document evaluation result of each participant (for example, pass, fail).

(6) Indoctrination Training. Provide and document employees and volunteers SOH indoctrination training based on the applicable SOH program, and federal, state, and local requirements prior to the start of work. The training must include the following:

(a) Corps of Engineers Safety and Occupational Health Management System (CE-SOHMS) awareness training.

(b) Requirements and responsibilities for accident prevention and the maintenance of safe and healthful work environments.

(c) General SOH policies and procedures and pertinent provisions of this manual.

(d) Employee and supervisor responsibilities for reporting all accidents and near misses.

(e) Provisions for medical facilities and emergency response and procedures for obtaining medical treatment or emergency assistance.

(f) Procedures for reporting and correcting hazards, unsafe conditions or practices.

(g) Job hazards and the means to control and eliminate those hazards, including applicable Position Hazard Analysis (PHA) and Activity Hazard Analysis (AHA) (see paras 1-6 and 1-8.c).

(7) Employees and volunteers that work around water must be provided basic water safety training to include the following:

(a) The “Reach, Throw, Row, Don’t Go” method.

(a-1) Reach. Hold on to the dock or your boat and reach your hand, a boat oar, a fishing pole, or whatever you have nearby, to the person.

(a-2) Throw. If you cannot reach far enough, toss things that float for the person to grab.

(a-3) Row. If you are in a boat, use the oars to move the boat closer to the person in the water, or call out to a nearby boat for help. Do not operate the boat’s motor close to a person in the water, they could be injured by the propeller.

(a-4) Don’t Go. Do not go into the water unless you are trained. Call out for help.

(b) Hazards associated with working around water (for example, temperature, depth, current).

(c) Hands-on training on how to use rescue equipment (for example, throw rings and bags) and personal protective equipment (PPE) (for example, personal flotation devices(PFD)) properly.

b. Collateral Duty Safety Officer (CDSO). CDSOs will be designated in writing on ENG Form 6283 (Collateral Duty Safety Officer Designation Letter) (see para 1-10.c) or equivalent and will have: (1-3.b)

(1) Initial SOH Training.

(a) All CDSOs must receive Occupational Safety and Health Administration (OSHA) or Proponent-Sponsored Engineer Corps Training (PROSPECT) 30-hour general industry or construction safety training. OSHA 6005- Collateral Duty Course for Other Federal Agencies is also permitted. Training may be web-based if permitted by OSHA. In lieu of formal OSHA 30-hour or PROSPECT 30-hour, SOH training covering the subjects of the 30-hour course and this manual may be accepted by the local Safety and Occupational Health Office (SOHO). The local SOHO will evaluate the proposed equivalent training for applicability to the work being performed.

(b) CDSOs must receive training according to 29 CFR 1960.58. The local SOHO will determine the content and length of training required.

(2) Competency Training Requirements. After appointment, CDSOs must maintain competency by taking 24 hours of documented formal classroom or online SOH-related training every three years. The 24 hours can be multiple classes combined.

(3) Experience Requirements. CDSOs must have a minimum of three years of experience and have knowledge of the work being performed to identify hazards and implement controls.

Note. Supervisor, in coordination with the SOHO, may adjust the training and experience requirements.

c. Quality Assurance Representative (QAR). All QARs (for example, Construction Representative, Quality Assurance Officers, etc.,) should receive OSHA or PROSPECT 30-hour general industry or construction safety training. Training may be web-based training if permitted by OSHA. In addition, the local SOHO or their designated appointee must provide SOH awareness training commensurate with the hazards they may encounter during the performance of their duties. (1-3.c)

d. Supervisors. All USACE supervisors must receive SOH training within 12 months of hire to enable them to recognize and control safety and health hazards in their working units and manage the USACE SOH program. Refresher training will be provided every three years. Training must include the following: (1-3.d)

(1) Supervisory responsibility for providing and maintaining safe and healthful working conditions for employees.

(2) The USACE SOH program.

(3) Section 19 of the OSH Act.

(4) Executive Order 12196.

(5) SOH standards applicable to the assigned workplaces.

(6) Procedures for reporting hazards.

(7) Procedures for reporting and investigating allegations of reprisal.

(8) Procedures for the abatement of hazards.

(9) Procedures for reporting accidents and conducting investigations.

(10) Any other appropriate rules and regulations.

1-4. Roles and Responsibilities.

a. General Employees. All employees are responsible for SOH program implementation in the workplace. Each employee is responsible for complying with applicable SOH requirements, wearing prescribed SOH equipment, reporting hazardous or unsafe conditions or activities, preventing avoidable accidents, and working in a safe manner and the following: (1-4.a)

(1) While on duty, employees must not use or be under the influence of alcohol, narcotics, intoxicants, or similar performance or mind-altering substances.

(2) Employees must report all hazards, accidents, and near misses immediately to their supervisor.

(3) Employees should be involved in the development of AHAs for the work activities they perform. Employees must review applicable AHAs before beginning work and adhere to the necessary requirements during the performance of such activities.

(4) While on/visiting a USACE site that is controlled by a contractor and a contractor-managed Accident Prevention Plan (APP) (for example, QARs on construction sites), USACE employees must comply with the contractor's APP and associated SOH programs and requirements (for example, PPE, Fall Protection, Hazardous Energy Control (HEC), Diving, Blasting).

(5) All USACE employees, in coordination with their supervisor, must develop a PHA upon initial assignment to a position and review and revise it at least annually or when position duties or conditions change (see para 1-8.c).

b. Collateral Duty Safety Officer (CDSO). CDSOs are responsible for overseeing and ensuring implementation of the SOH program at their assigned work site(s) to include the following: (1-4.b)

(1) Ensure hazards identified in AHAs are appropriately addressed.

(2) Ensure employees are knowledgeable of potential task hazards and required controls to be used.

(3) Provide feedback to employees and supervisors on the work activities performed and potential ways to improve the safety of the activity.

(4) Seek support and information from the local SOHO if there is a reported safety concern or someone becomes injured or ill.

(5) Give assigned safety duties proper priority.

(6) Report safety-related matters directly to assigned supervisor.

(7) Coordinate activities with the local SOHO.

c. Quality Assurance Representative (QAR). QARs are responsible for ensuring contract work is performed according to the contract and this manual (for example, APP, AHA). As part of their overall responsibility for ensuring contractor conformance and safety, the QAR must conduct daily SOH inspections and document any findings in their daily logs according to paragraph 1-5.b. (1-4.c)

d. Supervisors. Supervisors are ultimately responsible for SOH program implementation at their work sites and ensuring that all employees comply with the necessary requirements to include the following: (1-4.d)

(1) Ensure no person is required, instructed, or allowed to work in surroundings or under conditions that are unsafe or dangerous to their health.

(2) Designate CDSOs in writing, see non-mandatory ENG Form 6283, Collateral Duty Safety Officer Designation Letter) (see para 1-10.c).

(3) Verify site-specific SOH plans are created, signed, and implemented when required (see para 1-10.d).

(4) Remove employees from exposure to work hazards or the work site when they are observed acting in an unsafe manner, or otherwise pose a potential SOH threat to themselves or others. Employees may return to the work environment after appropriate supervisory action has occurred (for example, re-training on proper safe procedures, threat removed).

(5) Attend monthly meetings for all supervisors on the project work site. Conduct frequent meetings, at a minimum monthly, for all employees to discuss SOH issues. (See para 1-8.f)

(6) Report all accidents and near misses to the SOHO according to ER and EP 385-1-99. No supervisor may decline to accept a report of an accident or near miss from a subordinate.

(7) Immediately notify the local SOHO of any OSHA or other regulatory inspections.

(8) Enforce the drug-free workplace requirements. Immediately notify security to employees found to be under the influence of or consuming such substances from the work site.

(9) Ensure that all employee-required SOH training is completed prior to work according to paragraph 3 of each chapter of this manual.

(10) Ensure training in handling emergency situations that may arise from project activities or equipment operations is provided. All persons who may have an occasion to use emergency and rescue or lifesaving equipment must be familiarized with the equipment location, trained in its proper use, be instructed in its capabilities and limitations, and medically qualified for its use.

(11) Ensure the AHA process is implemented according to paragraph 1-6. Ensure all AHAs are developed by CPs for all activities as required by this manual. See paragraph 6 of each chapter of this manual.

(12) Ensure that all employees are physically and medically qualified to perform the duties they are assigned.

(13) Ensure visitors are escorted, properly protected, are wearing or provided the appropriate PPE, and receive a safety brief on the hazards to be expected on the site and the SOH controls required (see para 1-8.a).

(14) Ensure the PHA process is implemented according to paragraph 1-8.c, including that each employee has a PHA current with the job duties they perform and that they are reviewed and updated at least annually.

(15) Assist with the implementation of CE-SOHMS.

e. Competent Person (CP). (1-4.e)

(1) Develop AHAs for all activities as required by this manual (see para 1-6).

(2) Oversee work activities as required by this manual. When conditions arise that are unsanitary, hazardous, or dangerous to employees, take prompt corrective measures to eliminate them.

f. Qualified Person (QP). (1-4.f)

(1) Develop AHAs for all activities as required by this manual (see para 1-6).

(2) Provide guidance and perform work activities as required by this manual.

g. Command. Each USACE Command is responsible for establishing and maintaining a SOH program that complies with this manual and federal, state, and local requirements. Implement the CE-SOHMS according to ES 16009. (1-4.g)

h. Project Manager (PM)/Program Manager (PgM). The PM/PgM, in coordination with the local SOHO, is responsible for ensuring SOH integration into all aspects of work planning according to the USACE Project Deliver Business Process Manual and paragraph 1-7.a to include the following: (1-4.h)

(1) Ensure that a site-specific SOH Plan is developed for funded projects and incorporated into each Project Management Plan (PMP) or Program Management Plan (PgMP) and ensure that all requirements are executed throughout the life cycle of the project (see para 1-7.a).

(2) Coordinate all highly complex or high-hazard projects with the local SOHO.

(3) Collaborate with the customer and the local SOHO on project safety goals and objectives and communicate these through the PMP or PgMP SOH Plan and PDT meetings.

(4) Ensure that coordination between local SOHOs of the design district and the construction district, if applicable, occurs during the development of the PMP or PgMP.

(5) Ensure that identified hazards, control mechanisms, and risk acceptance are formally communicated to all project stakeholders.

(6) Ensure that the current UFGS 01 35 26, Governmental Safety Requirements in effect on the date of solicitation is used in all USACE contract work administered on behalf of the USACE under the provisions of FAR Clause 52.236-13 (that is, 48 CFR 52.236-13) and on other contracts as deemed appropriate based on the risk assessment.

(7) Coordinate with the local SOHO in determining SOH requirements (for example, limited scope or maintenance and service contracts based on the scope of work and associated hazards).

(8) Include FAR Clause 52.236-13 and the Request for Proposal in Military Construction contracts.

(9) Do not include locally developed SOH requirements in contract without the concurrence of the contracting officer (KO) and local SOHO.

(10) Do not include new contract requirements (for example, more stringent, differing intent, etc.) without the specific approval of HQUSACE.

i. Contracting Officer (KO). The KO/contracting officer representative (COR) is responsible for reviewing SOH documents (for example, APPs, AHAs) for compliance with the contract, this manual, and federal, state, and local requirements, as applicable, to include the following: (1-4.i)

(1) Ensure that all site-specific SOH documents (for example, APP, AHAs) are reviewed and accepted according to this manual. Coordinate with the local SOHO or their designated appointee for assistance.

(2) Ensure that all SOH documents, including changes, revisions, and updates are reviewed and accepted prior to the initiation of work.

(3) Immediately notify the local SOHO of any OSHA or other regulatory visits.

(4) Report all accidents to the local SOHO.

(5) When an employee is deemed to be in imminent danger, immediately stop the unsafe work being performed (see FAR Clause 52.236-13).

j. Safety and Occupational Health Office (SOHO). The SOHO is ultimately responsible for SOH program management, communication, and implementation within their area of responsibility to include the following: (1-4.j)

(1) Provide technical input for all SOH program requirements (for example, CE-SOHMS, SOH Plans, AHAs, PHAs) at the request of the employee or supervisor.

(2) Identify training requirements for employees based on assigned job duties and the nature of work performed. Work with leadership to ensure employees and supervisors are appropriately trained.

(3) Assist the supervisor with development of SOH Plan(s) and AHA(s) to ensure an adequate risk management process is implemented and the lowest acceptable residual risk is achieved.

(4) Assist PMs in determining safety contract requirements (for example, limited scope or maintenance and service contracts based on the scope of work and associated hazards).

(5) Assist and provide guidance to CDSOs as appropriate.

(6) Ensure Command investigates, reviews, analyzes, and reports accident and near miss information and any associated corrective actions needed or taken. Ensure all accident reports are accurate and complete prior to forwarding to upper commands. (See para 1-8.d)

(7) Ensure that the supervisor reviewing and approving SOH documents (for example, SOH plan, AHA, PHA) are competent to do so and provide assistance when necessary.

(8) Ensure a USACE SOH Professional is onsite full time for all USACE activities with a high potential for injury or illness or a residual RAC on the AHA is coded as high or extremely high.

(9) Ensure annual workplace inspections are performed according to paragraph 1-5.c.

(10) OSHA inspections.

(a) Report all OSHA inspections within two duty days for the event to Division SOHO, Headquarters USACE Safety Office (HQUSACE-SO), and the U.S. Army Combat Readiness Center (USACRC).

(b) Report all OSHA Notices of Violations (NOV) within two business days of the NOV issuance to Division SOHO, HQUSACE-SO, and the USACRC.

(c) Submit recommendations for appeals within four duty days of the NOV issuance date to Division SOHO, and HQUSACE-SO.

(d) If HQUSACE-SO endorses the appeal, submit the endorsement and recommendations for appeals within five duty days of the NOV issuance date to the USACRC.

(e) Report all abatements and abatement dates for all violations to the OSHA local office. Submit with a courtesy copy to the USACRC and HQUSACE-SO upon completion.

(11) Provide OSHA or other regulatory agency inspection documentation (for example, citations, reports) to division SOHO and HQUSACE-SO.

(12) Ensure accurate reports of accident and near miss data is entered into ENGLink according to ER and EP 385-1-99.

(13) Local USACE organizations may develop Standard Operating Procedures (SOPs) to implement the provisions contained within this manual, but may not implement new requirements (for example, more stringent, differing intent, etc.) without the specific approval of HQUSACE.

1-5. Inspection Requirements.

a. External Agency Inspections. Immediately notify the local SOHO of any OSHA or other regulatory agency inspection and provide the local SOHO an opportunity to accompany the inspector on the inspection. The inspection will not be delayed due to non-availability of the SOHO. (1-5.a)

(1) Provide the local SOHO with a copy of any citations or reports issued by the inspector and any corrective action responses to the citation(s) or report(s).

(2) The local SOHO will provide a copy of any citations or reports issued by the inspector and any corrective action responses to the citation(s) or report(s) to division and HQUSACE-SO.

b. Quality Assurance Representative (QAR) Inspections. QAR personnel, as part of their QAR responsibilities, must conduct and document daily SOH inspections of the work sites, material, and equipment to ensure compliance with this manual. These inspections must be documented in the daily logs. (1-5.b)

c. USACE Annual Workplace Inspections. All USACE workplaces must be inspected at least annually according to Standard Army Safety and Occupational Health Inspection procedures (see DA PAM 385-10). All violations of standards identified must be entered on DA Form 4754 or equivalent. RAC 1 and RAC 2 safety deficiencies greater than 15 days old and health deficiencies greater than 30 days old must be recorded on DA Form 4753 or equivalent. (1-5.c)

d. CDSO Inspections. CDSO, as part of their SOH responsibilities, must conduct and document daily SOH inspections of the work sites, material, and equipment to ensure compliance with this manual. These inspections must be documented in the daily logs. (1-5.d)

e. Supervisor Inspections. Supervisors, as part of their SOH responsibilities, should conduct and document frequent SOH inspections (minimum of monthly) of the work sites, material, and equipment to ensure compliance with this manual. (1-5.e)

1-6. Activity Hazard Analysis (AHA) Requirements.
The requirements of this paragraph apply to all AHAs required by this manual. Specific AHA requirements are identified in paragraph 6 of each chapter in this manual.

a. Risk management is a business process that requires planning to ensure risk is reduced to an acceptable level prior to performing work activities. Risk management provides consistent and systematic identification and communication of risks, consequences, and potential actions to mitigate those risks. Unidentified and unmanaged hazards and their associated risks impede successful missions, undermine readiness, decrease morale, and deplete resources. A properly documented risk assessment serves as evidence that leadership decision-making was based on sound judgment and reasonable principles. Leadership and management at every level must exercise risk management. Risk management must be integrated into all phases of work to ensure risk decisions are made at the appropriate level, no unnecessary risk is taken, and the process is applied consciously. Effective risk management requires the following steps (see para 1-10.b): (1-6.a)

(1) Step 1. Identify all potential hazards associated with the task prior to work.

(2) Step 2. Assess identified hazards to determine probability and potential severity of occurrence (that is, risk).

(3) Step 3. Develop adequate controls to mitigate hazard and reduce probability and risk (see para 1-6.a).

(4) Step 4. Implement controls to ensure all workers know, understand, and implement required controls to reduce risk.

(5) Step 5. Continuously supervise and evaluate controls to ensure they are fully implemented, adequate, and effective at reducing risk. When needed, stop work to make corrections, modify, or add more controls, to ensure risk is managed.

Note. The USACE uses many tools to aid with risk management implementation. One of these tools is the AHA.

b. Hazard Mitigation. Analysis of hazards and implementation of control measures is a vital element to the risk management process and reducing the residual risk to an acceptable level. Use the following hierarchy of controls, listed from most effective to decreasing effectiveness, to identify control measures to be implemented to eliminate or control hazards to an acceptable level: (1-6.b)

Note. There may be some situations or activities when more than one control measure or level of controls may need to be implemented to adequately control the hazard(s) to an acceptable level.

(1) Elimination/Substitution. Elimination/substitution involves removing the hazard from the work area. This may be accomplished by modifying structures, changing work processes, or substituting equipment so that persons are not exposed to the hazard(s).

(2) Engineering Controls. Engineering controls isolate or separate the hazard(s) from the general work area and personnel exposure. A common engineering control is physical barriers that prevent contact/exposure to the hazard(s) (for example, guardrails, machine guards, containment).

(3) Administrative Controls. Administrative controls involve work practices or procedures to govern/control the way persons work so that hazardous situations or conditions can be avoided. A common example of an administrative control is training, in that persons are trained in proper procedures so that they do not subject themselves or others to hazards.

(4) PPE. PPE is equipment worn or used by persons performing work with hazards to minimize the effects of exposure to the hazard(s). PPE includes hard hats, safety glasses, safety shoes, hearing protection, respirators, etc. (See chapter 5)

Note. PPE should not be used as the only protection against a hazard. It should only be used after attempt has been made to implement higher level controls, or as a subsequent control to provide an additional layer of protection.

c. Risk Acceptance. Acceptance of risk is a serious matter; therefore, the appropriate level of leadership must accept the overall residual risk associated with a

task before its commencement. Residual risk must be communicated and accepted by the proper authority before beginning the activity. (1-6.c)

Note. The proper authority may be different in each scenario and is based on the scope of work, hazards, and associated risk.

(1) Activities that require an AHA must not begin until the AHA with the identified RAC has been reviewed, accepted, and signed by the proper approval authority.

(2) Each USACE Command must establish a process for risk acceptance for USACE activities identifying the proper acceptance authority or implement table for Risk Acceptance Matrix (see table 1-1).

Note. USACE does not accept contractor risk.

d. AHA Minimum Requirements. (1-6.d)

(1) AHAs must be prepared and documented for all field, laboratory, industrial, and maintenance activities performed. Before beginning each work activity, task, or DFOW, an initial AHA must be prepared to ensure minimum safety requirements are adequately addressed. In developing the AHA for a particular activity, the writer(s) (that is, CPs) should draw upon the expertise (for example, knowledge, skills, and experience) of the employees, supervisors, and SOH personnel. Additional AHA requirements may be found in other applicable paragraphs of this manual. See paragraph 6 of each chapter of this manual.

Note. Job Safety Analyses (JSAs), Job Hazard Analyses (JHAs), or similar risk management assessment tools are considered equivalent to, and acceptable substitutes for, AHAs as long as the data collected is the same as that required by the AHA.

(2) AHAs must be provided to and reviewed by all involved employees prior to starting the task. Each employee must document their review with a signature on the AHA or an additional signature sheet. Provide copies of signed AHAs to the supervisor or local SOHO upon request.

(3) AHAs must be readily available onsite (for example, office trailer) and accessible onsite by all employees for a period of 12 months. Workers/crews must have in their possession the current AHA that reflects current site conditions, personnel, equipment, control measures, etc. while the work is being performed.

(4) AHAs must include the following:

(a) Identify the activity/task/DFOW name, activity location, date of AHA development, name, and title of AHA preparer, and name and title of AHA acceptance authority.

(b) Define the steps to be performed for the activity/task/DFOW and the work sequences (for example, site conditions, materials, personnel) needed. Job steps should be detailed so that the reader clearly understands how that job will be accomplished (for example, how the part will be installed or removed, anticipated voltages, quantities of chemicals utilized, equipment utilized to accomplish the task, heights being accessed or trenched).

(c) List all potential hazards associated with each specific job step.

(d) List all controls required to mitigate hazards according to paragraph 1-6.a. If one layer of control cannot fully eliminate or reduce hazards to an acceptable level, put additional controls be in place to reduce risk to an acceptable level (that is, low or medium where possible).

(e) Assign a RAC to each job step, to identify the residual risk that remains after controls have been applied.

(f) Assign an overall RAC to the AHA. The overall RAC must not be lower than the highest job step RAC on the AHA.

(g) Identify the equipment needed, training requirements needed of involved personnel, and any inspection requirements necessary for the activity/task/DFOW. Supervisor will designate, in writing (for example, certification, company letter) any required CP(s) and QP(s) by name for a particular activity (for example, excavation, confined space, scaffolding, fall protection, lead removal, asbestos abatement, other activities as specified by OSHA and this manual), and provide proof of competency/qualification. (See para 1-10.c)

(h) Risk acceptance according to paragraph 1-6.b. Activities that require an AHA must not begin until the AHA with RAC has been reviewed and accepted by the proper acceptance authority.

(5) Updates to the AHA. The AHA must be modified as necessary to address changing site conditions, operations, or change of CP(s) or QP(s).

(a) If the initial RAC increases due to a change made to the AHA, resubmit the AHA for acceptance prior to the start of work.

(b) Changes or updates to an AHA that do not increase the RAC are not required to be resubmitted for acceptance.

(c) If the AHA needs to be revised, work should not resume until revision is complete and provided to and reviewed by all involved employees prior to starting the task.

(d) If the work has been stopped due to safety non-compliance with this manual, site-specific SOH Plan, AHA, etc. and the AHA needs to be revised, work should not resume until revision is complete and accepted and employees have re-reviewed.

Note. For a non-mandatory formatted outline of an AHA see ENG Form 6206 (Activity Hazard Analysis) (see para 1-10.b).

1-7. Minimum Plan Requirements.

a. Site-Specific Safety & Occupational Health (SOH) Plan. Work cannot begin until the supervisor develops, signs, implements, and updates as necessary (at least annually), a site-specific SOH plan, see mandatory ENG Form 6292 (Site-Specific Safety & Occupational Health Plan Worksheet) for USACE activities where USACE employees are engaged in functions other than routine office or administrative duties (see para 1-10.d). The site-specific SOH plan will include at the minimum: (1-7.a)

Note. Such activities include operations and maintenance; recreational resource management; in-house conducted environmental restoration (investigation, design, and remediation); surveying, inspection, and testing; construction management; warehousing; transportation; research and development; and other activities when the supervisor and the local SOHO agree on the benefit of such a program for accident prevention.

(1) Signature Sheet. Include name, title, signature, email, and phone number for the following:

(a) Plan Preparer, that is the QP, CP, Project Lead, or CDSO.

(b) Plan Approver, that is the supervisor.

(2) Project Information.

(a) Project name.

(b) Project location including a map.

(c) Project description.

(3) SOH Commitment and Policy (for example, SOH Commander policy, SOH strategic goals, SOH objectives).

(4) Statement that no work will be performed unless a designated CDSO is present on the jobsite.

(5) Accident reporting and investigations.

(a) OSHA 300A requirements (see para 1-8.f).

(b) Reporting and investigate accidents according to ER/EP 385-1-99.

(6) SOH Training.

(a) List of applicable training requirements applicable to the project. See local training matrix for complete list of SOH training.

(b) Designation letter(s) for CDSO, CP, and/or QP as applicable to the project including proof of competency/qualifications (see para 1-10.c).

(7) SOH Inspections. A list of all applicable inspections required by this manual, applicable federal, state, and local requirement for this project including:

(a) Who will conduct the inspection, type of inspection and frequency of inspection.

(b) How deficiencies will be documented and tracked as required by this manual and according to local requirements (see para 1-8.f).

(8) AHA. A list of current and signed AHAs according to paragraph 1-6.

(9) Analysis of applicable site-specific plans, programs, and procedures. Applicable plans to the project will be created according to this manual, applicable federal, state, and local requirements.

(10) Occupational Health. Industrial Hygienist (IH) most recent written report and recommendations.

Note. The following requirements apply to all plans required by this manual. Specific plan requirements are identified in paragraph 7 of each chapter in this manual.

b. Emergency Plan. Ensure employee safety in case of fire, inclement weather, or other emergencies at the project location must be prepared, in writing, and reviewed with all affected employees. Emergency plans must be tested to ensure their effectiveness. (1-7.b)

(1) Plans must include evacuation procedures, routes, and rally points, the identification of critical plant operations and procedures for employees who operate critical plant operations (for example, gas line shut down, electrical systems), employee accountability following evacuation, rescue, and medical duties, means of reporting emergencies, and points of contact.

(2) Onsite emergency planning must be coordinated with off-site emergency support. Documentation of specific onsite emergency services is also required and can include written agreements, memoranda for record, telephone conversation logs, etc. Offer an onsite orientation of the project and associated hazards to the emergency services provider.

(3) Emergency alert systems must be developed, tested, and used to alert all persons likely to be affected by existing or imminent disasters and to alert and summon emergency responders.

(4) Emergency telephone numbers and reporting instructions for ambulance, physician, hospital, fire, and police must be clearly communicated to all employees and posted at the work site.

(5) Employees working alone in remote locations must be provided an effective means of emergency communications (for example, cellular phone, two-way radios, land-line telephones, remote employee tracking devices/global positioning system (GPS), or other.)

(a) The selected communications must be readily available (easily within the immediate reach) of the employee and be tested prior to the start of work to verify effective operation at the work site.

(b) Develop an employee check-in/check-out communication process to ensure employee safety.

1-8. General Requirements.

a. USACE Employee Site Control. (1-8.a)

(1) On USACE work sites, the project supervisor, with the assistance of the local SOHO and CDSO, is responsible for managing, communicating, implementing, and enforcing compliance with the accepted site-specific SOH Plan and other SOH requirements.

(2) Visitors.

(a) All visitors must be escorted by appropriate site personnel. Personnel who escort visitors are responsible for their visitors and must ensure they are properly protected.

(b) USACE project sites must maintain a stock of common PPE, such as hard hats, eye protection, ear plugs, and reflective vests, for use by visitors. Escorts must ensure the visitors are wearing the appropriate PPE and provide if necessary.

Note. If visitors can be escorted along a designated path through the site where they are not exposed to the hazards, the use of PPE is not necessary.

(c) Escorts must ensure that all visitors receive a safety brief from a person knowledgeable of the hazards to be expected on the site and the SOH controls required.

(d) Maintain an onsite visitor sign-in/out log. The designated site personnel must keep a roster of all visitors that enter the site.

b. USACE SOH Implementation and Oversight. (1-8.b)

(1) USACE SOH Professional. A SOH professional must be onsite at all times work is being performed by USACE employees that have a residual RAC of high or extremely high, or for any activity with a high potential for injury or illness.

(2) CDSO. A CDSO must be onsite at all times work is being performed by USACE employees that have a residual RAC of medium. A CDSO cannot be assigned to projects that have a residual RAC of high or extremely high.

(3) A QP or CP must be onsite at all times when work is being performed by USACE employees that have a residual RAC of low or medium.

c. Position Hazard Analysis (PHA). The PHA is a risk management tool used by USACE to identify hazards and controls for routine work tasks. It is essential that the PHA be tailored to each employee's routine tasks and hazardous activities so that both the employee and the supervisor understand the potential job hazards and risk mitigation strategies. The PHA is the first step in the hazard assessment process for employees and may not be used as a substitute for an AHA. See https://apps.usace.army.mil/sites/PHA/Pages/Welcome.aspx. (1-8.c)

(1) PHAs must be developed for all USACE employees upon initial assignment to a position and must be reviewed and updated at least annually, or when position duties or conditions change. Both the employee and the supervisor must be involved with PHA development and review to ensure all the hazards and risks of the job are captured and that the employee understands their responsibility for implementing the necessary control measures. Assistance may be requested from the local SOHO as needed.

(2) A generic PHA for groups of employees is not permitted. The intent is to develop an employee specific PHA that accurately describes the employee's tasks, associated hazards, and exposures along with the required controls. Supervisors can request the local SOHO to assist in developing a template PHA for their respective office.

(3) PHAs must include the following elements:

(a) The employee's name, job title, and date of PHA development.

(b) List all the potential hazards associated with the employee's job duties.

(c) List all of the controls required to mitigate hazards (see para 1-6.a).

(d) Identify the training requirements needed to perform the job duties.

(e) Identify the medical surveillance requirements of the position.

(f) Identify the PPE needed by the employee.

(4) Employees can attach copies of employee training certificates to the PHA for all required SOH training.

(5) Review and Acceptance. Once the PHA is complete with the necessary information, the employee must review and sign the PHA, review it with the supervisor, and then the supervisor must sign it to acknowledge concurrence with the analysis. Supervisors must ensure that employees understand SOH policies and programs and establish supervisory expectations of safe behavior. Supervisors must also discuss consequences of unsafe behavior. A signed copy of the PHA must be maintained in a location that the employee can easily access for review.

(6) Supervisors must provide completed PHAs for all employees who perform duties other than routine office work to the local SOHO. PHAs that include potential chemical or physical hazard exposures must be reviewed by the local SOHO for review and discussion of additional risk and exposure mitigation strategies.

Note. An automated PHA is available for use by all USACE commands. District SOH professionals can request the automated PHA, or utilize the templates found on the HQUSACE-SO SharePoint to develop a hard copy PHA template for their district.

d. Accident Investigation and Reporting. The reporting and associated investigation of accidents and near misses is considered a leading indicator. Utilize the ENG Form 3394 to report accidents and near misses. (1-8.d)

(1) Investigate, analyze, and report all accidents and near misses occurring incidentally to an operation, project, or facility according to ER and EP 385-1-99.

Note. Except for rescue and emergency measures, do not disturb the accident scene until it has been released by the investigating official.

(2) Notify all work-related fatalities to OSHA within eight hours and any work-related hospitalization, amputation, or loss of eye within 24 hours (see 29 CFR 1904.39).

(3) Notify the U.S. Coast Guard (USCG) if the work-related injury is considered a marine casualty or a vessel is involved in a marine casualty according to 46 CFR 4.05-5 and 4.05-10, a commercial diving casualty under 46 CFR 197.484.

(4) Maintain records of all first aid treatments and provide them to the SOHO and the supervisor upon request.

(5) Records must include, at a minimum, employee's name, job title, date, and type of accident, causes and corrective actions taken (for example, AHA review, process changes, establishment of controls, personnel qualifications, and training).

e. Physical Qualifications of Employees. (1-8.e)

(1) Some factors to be considered in making work assignments are strength, endurance, agility, coordination, and visual and hearing acuity.

(2) At a minimum, employees must meet the physical requirements for specific job tasks and hazards as required by this manual, the position, the job description, OSHA guidelines, applicable Department of Transportation (DOT) regulations or applicable USCG requirements.

(3) Record medical documentation using applicable medical screening and medical history and examination forms and maintain them according to 5 CFR 293.

(4) While on duty, employees must not use or be under the influence of alcohol, narcotics, intoxicants, or similar performance or mind-altering substances. Supervisor must enforce the drug-free workplace requirements. Employees found to be under the influence of or consuming such substances will be immediately removed from the jobsite.

(5) Any employee under a physician's treatment and taking prescribed narcotics or any medication that may prevent them being ready, willing, and able to safely perform position duties, must provide a medical clearance statement to their supervisor.

f. SOH Communications. (1-8.f)

(1) Communicate all SOH program information, documents, signs, and tags to employees in a language that they understand. Work sites with non-English speaking employees must have onsite interpreters and translators that are fluent in all the spoken language(s).

(2) SOH Bulletin Board. All work sites must establish and maintain a SOH bulletin board. Where site, duration, or logistics of a project do not facilitate a bulletin board, an alternative, local SOHO-accepted method (for example, binder, digital) may be deemed as meeting the requirement for a bulletin board. The alternative method must include all mandatory information for employee and visitor review:

(a) A map denoting the route to the nearest emergency care facility.

(b) Emergency phone numbers.

(c) A copy of the most current site-specific SOH plan on or adjacent to the bulletin board or post a notice on the bulletin board stating the location of the plan. Locate the plan onsite and make it accessible to all employees.

(d) Post OSHA Form 300A from February 1 to April 30 of the year following the issuance of this form (see https://www.osha.gov/recordkeeping/forms). Mount it on or adjacent to the bulletin board and make it accessible to all employees. See 29 CFR 1904, in OSHA's recordkeeping rule, for further details on the access provisions for these forms.

(e) Mount a copy of the SOH deficiency tracking log on or adjacent to the bulletin board or post a notice on the bulletin board stating the location where it may be accessed by all employees upon request.

(f) SOH promotional posters.

(g) OSHA Safety and Health Poster.

(h) A copy of the hazardous material inventory, identification of use, approximate quantities, and a site map detailing location as required by this manual.

(3) Deficiency Log and Hazard Tracking System. Each USACE project, facility, field office must establish and maintain a current SOH deficiency tracking system that lists and monitors the status of SOH deficiencies in chronological order. The tracking system provides useful information that must be used to evaluate the effectiveness of the SOH Program. A monthly evaluation of the data should be discussed in the SOH meeting with everyone on the project. The deficiency log must be posted on the SOH bulletin board or post a notice on the bulletin board stating its location. The log must contain the following:

(a) Date deficiency identified.

(b) Description of deficiency.

(c) Corrective action.

(d) Name of person responsible for correcting deficiency.

(e) Projected resolution date.

(f) Date resolved.

(4) Safety Meetings. Safety meetings must be conducted on project sites to review past activities, plan for new or changed operations, review pertinent aspects of appropriate AHAs, establish safe working procedures for anticipated hazards, and provide pertinent SOH training and motivation.

(a) Meetings must be conducted frequently, at a minimum monthly, for all supervisors on the project location and at least once a week for all workers.

(b) Document the meetings. Include the date, persons in attendance, subjects discussed, and names of individual(s) who conducted the meeting. Maintain the documentation and furnish copies to the supervisor or local SOHO on request.

g. Requests for information. The following process will be used for requesting information of a requirement contained in this manual: (1-8.g)

(1) Official requests for information must be submitted through the local USACE SOHO who will submit the request through their SOH chain of command using the HQUSACE-SO SharePoint located at https://team.usace.army.mil/sites/HQ/SO/Pages/Variances_and_Waivers.aspx.

(2) HQUSACE-SO will have at least 15 business days from date of receipt to consider the request and to render a written response.

h. Requests for interpretation, variances, and waivers. Within the Corps of Engineers interpretation, variances, and waivers to provisions of this manual require the approval of the Chief of Safety and Occupational Health, HQUSACE. Variances, and waivers must provide an equal or greater level of protection, must be substantiated with a hazard analysis of the activity, and must be documented and forwarded through channels to Chief of Safety and Occupational Health, HQUSACE. (1-8.h)

(1) Official requests for interpretation, variances, and waivers must be submitted through the local USACE SOHO who will submit the request to their SOH chain of command using the HQUSACE-SO SharePoint located at https://team.usace.army.mil/sites/HQ/SO/Pages/Variances_and_Waivers.aspx.

(2) Requester must work the action with the local USACE SOHO who must provide their concurrence or non-concurrence with justification in the HQUSACE-SO SharePoint. Request is sent from local SOHO to their SOH chain of command.

(3) The division SOHO must render a concurrence or non-concurrence with justification within five business days of receipt in the HQUSACE-SO SharePoint.

(4) HQUSACE-SO will then coordinate with the local and division SOH Managers to evaluate the request. HQUSACE-SO will have at least 15 business days from date of receipt to consider the request and to render a written decision from the Chief of Safety and Occupational Health, HQUSACE.

Note. A waiver or variance will not be carried over to other operations unless the evaluator extends the scope to include other times and operations. If warranted, HQUSACE-SO may issue a global variance based on an individual request.
Note. All contractor requests for information, interpretation, variances, and waivers will be submitted into the SharePoint for review.

1-9. Figures and Tables.

Table 1-1
USACE Risk Acceptance Matrix

Category of Risk	Approval Authority
Extremely High Risk	Current Division Commanding Officer
High Risk	Current District, Center, or Lab Commanding Officer
Medium Risk	Current Supervisor or Team Lead Responsible for task
Low Risk	Current Supervisor or Team Lead Responsible for task

Note:
Commands can develop and publish their own Risk Acceptance Matrix.

1-10. Checklists and Forms.

a. ENG Form 3394, U.S. Army Corps of Engineers Mishap Notification and Investigation (https://www.publications.usace.army.mil/USACE-Publications/Engineer-Forms/) (1-10.a)

b. ENG Form 6206, Activity Hazard Analysis (AHA) (non-mandatory) (https://www.publications.usace.army.mil/LinkClick.aspx?fileticket=K66no-4L-v4%3d&tabid=16438&portalid=76&mid=43543) (1-10.b)

c. ENG Form 6283, Collateral Duty Safety Officer (CDSO) Designation Letter (non-mandatory). (https://www.publications.usace.army.mil/LinkClick.aspx?fileticket=AF5Ct_odIVU%3d&tabid=16438&portalid=76&mid=43543) (1-10.c)

d. ENG Form 6292, Site-Specific Safety & Occupational Health (SOH) Plan Worksheet (mandatory). (https://www.publications.usace.army.mil/LinkClick.aspx?fileticket=a_sZKJv_I_U%3d&tabid=16438&portalid=76&mid=43543) (1-10.d)