DEPARTMENT OF THE ARMY   ER 385-1-11
U.S. Army Corps of Engineers
441 G Street, NW
Washington, DC 20314-1000

CESO

Regulation
No. 385-1-11   1 June 2021

Safety and Occupational Health
INDUSTRIAL HYGIENE PROGRAM

1. This regulation establishes policy, outlines responsibility, and provides procedure for the management and execution of the U.S. Army Corps of Engineers (USACE) Industrial Hygiene Program (IHP).

2. Applicability. This regulation applies to all Headquarters (HQ) USACE staff elements and USACE Divisions, Districts, Centers, and Field Operating Activities (FOA).

3. Distribution Statement. Approved for public release; distribution is unlimited.

FOR THE COMMANDER:

JOHN P. LLOYD
COL, EN
Chief of Staff

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1. <u>Purpose</u>. This regulation establishes policy, outlines responsibility, and provides procedure for the management and execution of the U.S. Army Corps of Engineers (USACE) Industrial Hygiene Program (IHP).

2. <u>Applicability</u>. This regulation applies to the entirety of USACE, including Divisions, Districts, Laboratories, and Centers.

3. <u>Distribution.</u> Approved for public release; distribution is unlimited. This document will be effective six months after the date of publication.

4. <u>References</u>. See Appendix A.

5. <u>Records Management (Recordkeeping) Requirements</u>.

    a. The records management requirements for all record numbers, associated forms, and reports required by this regulation are addressed in the Records Retention Schedule-Army (RRS-A). Detailed information for all related record numbers are located in the Army Records Information Management System (ARIMS)/RRS-A at https://www.arims.army.mil. If any record numbers, forms, and reports are not current, addressed, and/or published correctly in (ARIMS)/RRS-A, see Department of the Army Pamphlet (DA PAM) 25-403, Guide to Recordkeeping in the Army.

    b. IH records, including Defense Occupational and Environmental Health Readiness System-Industrial Hygiene (DOEHRS–IH) data, are required to meet legal and professional requirements. IHP personnel ensure the preservation and retention of records. Electronic format is acceptable; however, hard copies, if required, must be made available upon request (printed from electronic format). IHP personnel comply with applicable laws and regulations, including:

    (1) Public Law 104–191: Health Insurance Portability and Accountability Act (HIPAA) of 1996

    (2) 45 Code of Federal Regulations (CFR) 160 and164: HIPAA Privacy, Security and Enforcement Rules

    (3) 20 CFR 10: The Federal Employees' Compensation Act (FECA)

    (4) 29 CFR 1960: Basic Program Elements for Federal Employee Occupational Safety and Health Programs and Related Matters

    (5) 29 CFR 1910.1020: Access to employee exposure and medical records

    (6) Department of Defense Instruction (DoDI) 6025.18: HIPAA Privacy Rule Compliance in DoD Health Care Programs

    (7) DoDI 8580.02: Security of Individually Identifiable Health Information in DoD Health Care Programs

(8) Army Regulation (AR) 25–400–2: The ARIMS

(9) Engineer Regulation (ER) 25-60-1: USACE Records Management Program

6. <u>Glossary</u>. See Glossary.

7. <u>Responsibilities</u>.

a. USACE Headquarters:

(1) The Chief, Safety and Occupational Health (CESO), will:
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(a) Provide guidance and direction on the IHP and related policies.

(b) Designate an Industrial Hygiene Program Manager (IHPM) who has extensive knowledge of industrial hygiene practices.

(c) Maintain liaison with Army Staff and other government agencies to ensure the USACE IHP meets legal statute, Army requirements, and adequately protects employees.

(2) IH Program Manager (IHPM) at CESO or equivalent staff member, will:

(a) Develop and implement a Headquarter (HQ) USACE IHP that meets the purpose and objectives outlined in this document.

(b) Define IHP responsibilities as related to safety and occupational health (SOH) programs and functions.

(c) Be the Proponent for USACE IHP, assist with vetting and selection of IHs who meet and exceed the position description requirements as set forth by the Office of Personnel Management (OPM) 0690/0640 classification and qualifications.

(d) Develop, review, and update standard operating procedures (SOPs) for IH practices (e.g., industrial hygiene (IH) equipment, design reviews, indoor air quality (IAQ)).

(e) Collaborate with the civilian personnel office regarding internal staffing, health hazard evaluation information relative to job

descriptions, claims for compensation under 20 CFR 10: FECA, and claims for environmental differential pay or hazard differential pay.

(f)   Assist USACE IH personnel in maintaining their technical competencies and qualifications in identifying, assessing, and controlling industrial hygiene hazards.

b.   Commanders at all levels:

(1)   Create and maintain a culture promoting a safe and healthful work environment.

(2)   Provide clear and concise direction for the IHP objectives in support of Corps of Engineers Safety and Occupational Health Management System (CE-SOHMS).

(3)   Provide the necessary resources including qualified IH personnel to recognize, evaluate, and control workplace hazards.

(a) Create and fund an IH position at the division level to support District SOH offices. The Division IH should support the District IHs to ensure technical competencies, information sharing, oversee the coordination of District IHs in support of Regional or USACE-wide activities, and actively position the District IH programs for success.

(b) Create and fund an IH position at the district level and support the IH in executing the District IH Program.

(4)   Ensure recognized hazards that may cause serious injury or death are eliminated or reduced to the lowest acceptable risk level.

(5)   Ensure all employees are actively engaged in promoting a safe and healthful environment by implementing risk management principles, tools and techniques.

(6)   Provide adequate office, storage, laboratory space, and transportation for the IHP. Facilities must be of adequate quality and size and suitably located to allow the performance of IH functions. Laboratory space is necessary primarily for user-performed maintenance, function testing, calibration, and equipment storage. Laboratory requirements depend on the amount and type of equipment used and procedures performed.

c. Division SOH Manager or equivalent staff member:

(1) Define IHP responsibilities as related to SOH programs and functions.

(2) Develop and maintain SOPs for IH practices.

(3) Ensure Districts under their responsibility have the necessary support needed to implement the IHP.

(4) Maintain qualified IH personnel dedicated to anticipating, recognizing, evaluating, and controlling workplace hazards.

 d. District SOH Manager or equivalent staff member:

(1) Define IHP responsibilities as related to SOH programs and functions at the local level.

(2) Review, approve, and evaluate IH staff individual development plans based on the Army IH technical competencies to ensure IH staff can fulfill assigned duties and responsibilities.

(3) Develop, review, and update SOPs for IH practices (e.g., IH equipment, design reviews, IAQ).

(4) Establish an annual budget plan to adequately fund the IHP to include: IH staffing, equipment, sampling and analysis, supplies, training such as DOEHRS-IH, travel, and reference materials to enable IH to complete the mission.

(5) Collaborate with the civilian personnel office regarding internal staffing, health hazard evaluation information relative to job descriptions, claims for compensation under 20 CFR 10: FECA, and claims for environmental differential pay or hazard differential pay.

(6) Maintain qualified IH personnel dedicated to anticipating, recognizing, evaluating, and controlling workplace hazards.

(7) Ensure all identified deficiencies in IH surveys are documented and addressed through a corrective action plan using the hierarchy of controls.

 e. Industrial Hygienist:

(1) Successfully complete the DOEHRS-IH Course.

(2) Ensure IH data is properly entered into DOEHRS-IH.

(3) Use the Department of Defense Industrial Hygiene Exposure Assessment Model (DoD IH EAM) as the business practice for IH.

(4) Using the DOEHRS-IH shop priority codes, develop the Master Schedule and the IHP Action Plan, and perform qualitative and/or quantitative IH surveys and sampling based on risk.

(5) Provide unscheduled IH surveys, sampling, and assistance as requested or based on emergent situations.

(6) Establish sampling protocols and equipment calibration practices according to internal procedures, manufacturer's recommendations, regulatory standards and/or authoritative standards.

(7) Provide SOH Manager an estimated budget for IH needs such as sampling analysis and media, equipment and calibration supplies, training such as DOEHRS-IH, reference materials and travel to complete the mission.

(8) Using the hierarchy of controls, recommend appropriate measures to reduce the risk of recognized hazards.

(9) Confirm the feasibility and effectiveness of the implemented controls using the DOD IH EAM and make changes when indicated.

(10) Provide supervisors, managers, and employees with written reports of sampling results and survey information to include findings, recommendations, and corrective actions, as applicable.

(11) Notify Occupational Health Program Manager (OHPM) when employees are recommended for medical surveillance. Recommendations for inclusion in the medical surveillance program will be based on IH assessments, sampling data, and regulatory requirements.

(12) Inform the IHPM of survey findings and recommendations that may affect the IH community of practice.

(13) Provide support to the OH-related programs.

(14) Maintain technical competencies to perform quality assurance measures such as:

 (a) Verify equipment calibration to ensure accurate quantitative measurement of health hazards.

(b) Use American Industrial Hygiene Association (AIHA) accredited IH laboratories or laboratories that meet the International Organization for Standardization/International Electro Technical Commission 17025.

(c) Perform design reviews to ensure compliance with codes and standards produced by government agencies (e.g., Occupational Safety and Health Administration (OSHA)) and nationally recognized consensus organizations (e.g., American Society of Heating, Refrigerating and Air-Conditioning Engineers, American National Standards Institute and the Unified Facilities Criteria).

f. Project and Field Safety Office Representative:

(1) Coordinate IH surveys and workplace monitoring tasks with local IH personnel.

(2) When collecting samples and conducting workplace monitoring, use standard methods under the direction of the IH.

(3) Develop knowledge of IH concepts.

g. Supervisors at all levels:

(1) Implement USACE IH policies and programs.

(2) Schedule IH surveys and workplace monitoring tasks with the IH.

(3) Provide IH access to project sites to complete IH surveys and workplace monitoring tasks.

(4) Foster a workplace where IH hazards are identified and assessed to ensure proper controls are established to reduce or eliminate associated risks.

(5) Using the hierarchy of controls, incorporate IH recommendations. Review and update PHAs and AHAs as required.

(6) Encourage personnel to take an active role in their own safety and health and of their co-workers.

(7) Recognize the importance of reporting and investigating occupational illnesses and diseases

(8) Develop skills needed to implement SOH programs at the employee level.

(9) Ensure employees follow established IH work practices.

(10) Ensure known and potential safety and health hazards are identified in the PHAs, and AHAs.

(11) Work with local IH and OHPM to identify positions that require medical surveillance evaluations, laboratory testing, vaccinations, immunizations, and use of specific PPE. Include these requirements in position descriptions and PHAs.

(12) Notify the local SOH Office/Representative or District SOH Office of any suspected or known IH hazards or any medical symptoms that could have potentially resulted from an occupational exposure.

(13) Assist employee(s) with documentation of workplace exposures.

h. Employees:

(1) Prevent injuries and illnesses by applying risk management skills including identifying and controlling IH hazards.

(2) Follow engineering and administrative controls implemented to create a safe and healthy work environment.

(3) Appropriately use PPE and safety equipment as required.

(4) Comply with the OSHA, DODIs, ARs, ERs, work practices, and SOPs.

(5) Assist the IH in collecting exposure monitoring data by wearing appropriate monitoring and sampling equipment and following IH instructions.

(6) Report any unsafe conditions, hazardous exposures, and occupational injuries and illnesses to supervisor and/or the SOH Office.

(7) Complete all required safety and health training within specified time frame.

8. Training. To comply with applicable laws, regulations, and guidelines, funding for continuing education is necessary for IHs to maintain technical competency, enhance skills, and stay abreast of relevant issues within the profession. Training requirements

may be comprised of any of the Army IH Competencies (see Glossary) or other skills necessary to support current operations.

9. <u>Industrial Hygiene Support</u>. Industrial Hygienists support the planning, management, and implementation of the following programs, functions, and processes:

 a. Asbestos Management

 b. Biological Agents

 c. Crystalline Silica Management

 d. Confined Space Safety

 e. Ergonomics

 f. Hazard Communication

 g. Hazardous Material Management and Control

 h. Hazardous, Toxic, Radiological Waste

 i. Hearing Conservation

 j. Heavy Metals

 k. Indoor Air Quality

 l. Laboratory Health and Safety

 m. Lead Based Paint Management

 n. Occupational Health Program

 o. Personal Protective Equipment

 p. Process Safety Management

 q. Radiation Protection

 r. Respiratory Protection

 s. Thermal Stressors Management

 t. Ventilation

u.   Vision Conservation

Appendix A
References

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Glossary
Abbreviations and Terms

ABIH/BGC. American Board of Industrial Hygiene/Board for Global EHS Credentialing. It is the certifying body for IHs in the practice of Industrial hygiene.

AHA. Activity Hazard Analysis. A documented process outlining the potential hazards for a specific activity be carried out by an employee. The actual or potential hazards of the activity are identified, and measures for the elimination or control of those hazards are developed.

Army IH Core Competencies. Army IH competencies were aligned with core competencies already established by AIHA and ABIH/BGC with the addition of Army-specific core competencies. All APHC IH courses are aligned with an Army IH Core Competency and given within each IH course. Aligning the Army IH competencies with the AIHA/ABIH strategy ensures the Army IH community has well-trained professionals in the 0690 and 0640 series and paves the way for Army industrial hygienists to attain ABIH certification.
https://phc.amedd.army.mil/PHC%20Resource%20Library/ArmyIHCoreCompetencies2019.pdf

Corps of Engineers Safety and Occupational Health Management System (CE-SOHMS). A comprehensive business management system designed to manage occupational safety and health elements in the workplace.

Corrective action plan. A specific plan developed to decrease risk associated with an existing hazard in the workplace. The hazard action plan addresses how the command organization will implement corrective actions; at a minimum the plan includes individual(s) responsible for abating the hazard, a description of the corrective action(s) taken, tracking progress and/or an actual resolution date, and follow-up evaluations to confirm effectiveness of the corrective action(s).

DoD IH Exposure Assessment Model. The DoD 8-step IH Exposure Assessment model (DoD IH EAM), based on the AIHA Exposure Assessment Model, provides the structure for the DOEHRS-IH application. Following the steps of the model helps the IH execute a solid Exposure Assessment Strategy, central to an effective IHP. Data collected and documented through each of the steps are used to establish longitudinal exposures records for military and civilians.

Engineering control. Physical changes to workstations, equipment, processes, production facilities or any other relevant aspect of the work environment that reduces or prevents exposure to workplace risk factors.

Exposure monitoring. Techniques used to quantitatively measure workers' exposure to hazards, particularly health hazards, such as sampling for chemicals, dusts,

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biological organisms, noise, radiation, or other assessments. The purpose of such assessments is to quantify the level of workers' exposure to a hazard.

Health hazard. An existing or likely condition, inherent to the operation or use of material, that can cause death, injury, acute or chronic illness, disability, and reduced job performance due to exposure to chemical, physical, biological and/or ergonomic hazards.

Hierarchy of Controls. A systematic approach to control workplace hazards, ranked by effectiveness.

Industrial hygiene (IH). The science and art devoted to the anticipation, recognition, evaluation, prevention, and control of those environmental factors or stressors arising in or from the workplace which may cause sickness, impaired health and well-being, or significant discomfort among workers or among the citizens of the community (AIHA).

Industrial Hygienist. An Industrial Hygienists is someone who meets the OPM 0690 series requirements and follows the AIHA Code of Ethics.

IHP. Industrial Hygiene Program. A program which addresses workplace hazards by using industrial hygiene principles.

IHPM Industrial Hygiene Program Manager. An industrial hygienist at HQ CESO that has been designated in writing by the Commander to manage the USACE IHP.

Master Schedule. The Master Schedule is a mechanism used to create and schedule sampling and survey tasks in DOEHRS-IH.

Occupational exposure assessment. Application of a body of knowledge (qualitative and quantitative) to determine the relevant characteristics of one or more environmental factors that pose health and safety risks to workers. The process includes identifying and characterizing workplace exposures, evaluating their significance, and developing estimates of exposures to individuals or groups of workers, which may be used in risk assessment or exposure response studies.

OHPM Occupational Health Program Manager. A safety and occupational health professional in the CESO that has been designated in writing by the Commander to manage the occupational health program. Designations include USACE OHPM and local Command OHPMs.

PHA Position Hazard Analysis. A documented process by which the duties (or tasks) of an employee's job position are outlined, the actual or potential hazards of each duty are identified, and measures for the elimination or control of those hazards are developed.

Qualified SOH personnel. Civilian personnel who meet Office of Personnel Management (OPM) Standards for SOH Manager/Specialist General Schedule (GS)-018, Safety Engineering Technician GS-802, Safety Engineer GS-803, Safety Technician GS-019, Aviation Safety Officer GS-1825, Air Safety Investigating Officer GS-1815, Fire Protection Engineer GS-804, Fire Protection Specialist/Marshall GS-081, Medical Officer GS-602, Health Physicist GS-1306, Industrial Hygienist GS-690, Occupational Health Nurse GS-610, Environmental Health Technician GS-699, and military personnel equally qualified when compared to the OPM standards.

Risk assessment. A structured process used to identify and assess hazards. An expression of potential harm, described in terms of hazard severity, accident probability, and exposure potential to the hazard.

SOH. Safety and Occupational Health. The program and practices for protecting individuals from harm and loss of resources due to hazards or errors in all DoD operations, and always for military personnel. SOH includes occupational (i.e., workplace) safety and health, acquisition system safety and health, aviation safety, operational safety, off-duty recreational safety, radiation safety, and traffic safety.