

CHAPTER 11. CONFINED SPACE ENTRY PROGRAM

1100. GENERAL. The purpose of a confined space program is to prevent injuries to personnel who must enter confined spaces to work. Practices and procedures to protect employees from the hazards of entry into confined spaces are covered under the U.S. Department of Labor, Occupational Safety and Health Administration's (OSHA), *Permit-Required Confined Spaces*, 29 CFR 1910.146. The FAA Confined Space Entry Program (CSEP) is designed to enable employees to operate in and maintain a safe confined space work environment. All confined spaces are considered potentially hazardous. Employees will not enter confined spaces until the space has been evaluated by a qualified person to establish the appropriate safety precautions.

1101. SCOPE. This chapter applies to all FAA personnel and contractors. This includes, but is not limited to, personnel performing work in confined spaces, personnel involved in acquisition, design, and construction, etc.

1102. DEFINITIONS.

a. Alternate entry procedures. Procedures utilized for entry when the only hazard or potential hazard presented by the confined space is atmospheric and may be eliminated by the use of continuous forced air ventilation.

b. Confined space. A space that is large enough and so configured that an employee can bodily enter and perform assigned work, has limited or restricted means for entry or exit, and is not designed for continuous employee occupancy. Examples of such spaces include storage tanks, pits, boilers, fuel cells, sewers, underground utility vaults, tunnels, cooling towers, and manholes. Once a known or potential hazard is identified with a confined space, it becomes a permit-required confined space (PRCS).

c. Hazardous atmosphere. An atmosphere that may expose employees to the risk of death, incapacitation, impairment of ability to self-rescue (that is, escape unaided from a permit space), injury, or acute illness from one or more of the following causes:

- (1) Flammable gas, vapor, or mist in excess of 10 percent of its lower flammable limit (LFL).
- (2) Airborne combustible dust at a concentration that meets or exceeds its LFL.
- (3) Atmospheric oxygen concentration below 19.5 percent or above 23.5 percent.

(4) Atmospheric concentration of any substance for which a dose or a permissible exposure limit (PEL) is published in 29 CFR 1910, Subpart G, "Occupational Health and Environmental Control," or in 29 CFR 1910, Subpart Z, "Toxic and Hazardous Substances," and which could result in employee exposure in excess of its dose or PEL.

- (5) Any other atmospheric condition that is immediately dangerous to life or health.

(6) NOTE: FAA policy requires personnel to use OSHA PEL's. Where there are no OSHA PEL's, airborne limits shall not exceed American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values-Time Weighted Averages (TLV-TWA), NIOSH Recommended Exposure Limits (REL), or other published sources, such as material safety data sheets (MSDS), whichever is the more stringent, when making decisions related to personnel exposure to air contaminants.

a. Permit-Required Confined Space (PRCS). A confined space that has one or more of the following characteristics:

- (1) Contains or has a potential to contain a hazardous atmosphere.

(2) Contains a material that has the potential for engulfing an entrant; or has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor that slopes downward and tapers to a smaller cross-section.

(3) Contains any other recognized serious safety or health hazard.

1103. PROGRAM ELEMENTS. The following elements must be developed and implemented.

a. Program Management. A confined space program manager (CPSM) shall be designated to manage the Region/Center Confined Space Program.

b. Written Program. A written confined space entry program (CSEP) must be developed and implemented in accordance with the requirements of 29 CFR 1910.146. The entry program must be made available for inspection by employees and their authorized representatives. The written CSEP must contain the following elements:

(1) **Identification of Confined Spaces.** A survey of facilities shall be conducted and documented to identify and classify all confined spaces (permit and non-permit required) that could be entered by employees. A current inventory of spaces shall be maintained for each facility.

(2) **Comprehensive Hazard Evaluation and Control.** Existing and potential hazards of each space shall be identified and evaluated, and procedures and practices established by which the confined spaces can be entered safely.

(3) **Prevention of Unauthorized Entry.** Responsible supervisors shall prevent unauthorized entry through such measures as training and by posting signs and barriers, as necessary. The employer shall inform exposed employees by posting danger signs or by any other equally effective means of the existence of and location of the danger posed by the permit spaces.

(4) **Permit System.** If FAA employees will enter permit-required confined spaces, a written permit system shall be developed in accordance with 29 CFR 1910.146. Prior to entry into any PRCS containing a potentially hazardous atmosphere, the space shall be tested for oxygen content and the presence of toxic or flammable/explosive constituents. During the PRCS entry operation, the permit shall be clearly posted at the site.

(5) **Entry Into Confined Spaces.** Employees shall ensure that they follow FAA confined space entry procedures whenever entering non-FAA owned spaces.

(6) **Entry Procedures.** If the hazard cannot be eliminated, but is reduced so that only continuous forced air ventilation is required to permit safe entry, and no other potential hazard may be present, the space may be designated as an alternate entry procedure space and eliminate the requirement for attendants and rescue provisions. PRCS procedures must be followed until the entry supervisor certifies that all alternate entry procedures have been met. The entry shall be documented in accordance with requirements as listed in 29 CFR 1910.146 (c)(5).

(7) **Employee Information and Training.** All FAA employees who work in or near confined spaces must be properly trained on the hazards likely to be encountered and appropriate safety measures necessary to protect themselves before being assigned to work in accordance with 29 CFR 1910.146(g). Training shall include procedures specific to the employees' job duties and responsibilities (e.g., CPSM, authorized entrant, attendant, entry supervisor, and rescue personnel). All training shall be properly documented. Refresher training will be required whenever there is a change in operation that presents a hazard about which the employee has not been previously trained; and whenever the supervisor believes there have been deviations from entry procedures or there is inadequate knowledge of procedures; or whenever evaluation determines inadequacies in the employee's knowledge.

(8) Emergency Rescue Procedures. Emergency and rescue procedures must be consistent with the nature of the operations and the conditions within the confined space. A written emergency plan, approved by the CSPM, shall be developed and implemented for summoning rescue and emergency services, for rescuing entrants from permit spaces, for providing necessary medical services to rescued employees, and for preventing unauthorized personnel from attempting rescue. Emergency rescue teams shall be trained and shall conduct annual permit space rescue drills in accordance with 29 CFR 1910.146(k). Additionally, rescue equipment like tripod, harness, cable, and lift crank shall be provided, as appropriate.

(9) Equipment. Supervisors shall ensure that equipment necessary for safe entry is provided, including calibrating, testing, monitoring, and personal protective equipment, and that it is properly used and maintained.

(10) Contractor Operations. 29 CFR 1910.146 assigns specific responsibilities to both host employers and contractors. FAA contracts shall require contractors to comply with confined space standards and all other applicable Federal, state, and local safety and health regulations.

(a) When contractors perform work that involves entry into FAA-owned permit spaces, FAA contracting representatives shall provide information to the contractor on the FAA confined space program and the hazards associated with the confined space and ensure contractor compliance with 29 CFR 1910.146. FAA contractors performing work in non-FAA-owned spaces, are required to comply with requirements of OSHA and the property owner (e.g., local Port Authority).

(b) During construction work by contractors, consideration shall be given to the creation of confined spaces that FAA personnel may have to enter. Contracts shall require these spaces to be labeled to warn entrants of potential hazards.

(c) FAA personnel shall not permit contractors to use Government-owned equipment to evaluate confined spaces.

c. Facilities and Systems. Confined space requirements shall be considered and incorporated as early as possible in all design, construction, operation, and other projects and programs. Planners and engineers shall ensure all renovations and new designs and plans properly indicate the location of all confined spaces. All new confined spaces must be labeled prior to acceptance and operation.

d. Annual Program Evaluation. An evaluation of the CSEP shall be conducted annually, or whenever the CSPM has reason to believe that the measures taken under the permit program may not sufficiently protect employees, to validate compliance with this chapter. The program shall be revised to correct deficiencies found to exist before additional entries are authorized.

1104-1199. RESERVED.

