

Revised by: C. Bertram Reviewed by: R. Mallard

C & G Ed approval: November 8, 2010 Board approval: December 9, 2010 Textbook update: December 19, 2013

Industrial Education Safety (IES) 1054 Permit-Required Confined Space (1.25 Units)

[formerly Industrial Education Safety 54]

Prerequisite: None

Total Hours: 20 hours lecture

Catalog Description: This course is designed to enable students to recognize, evaluate, control, and abate safety and health hazards associated with permit-required confined space entry. The course focuses on the specific requirements of 29 Code of Federal Regulations (CFR) 1910.146 (a) through (l) and California Code of Regulations (CCR), Title 8, §§5156 thru 5158. Each paragraph of the standard is discussed with references to the Occupational Safety Health Administration (OSHA) directives, letters of interpretation, and preamble rationale. Technical topics include the recognition of confined space hazards, basic information about instrumentation used to evaluate atmospheric hazards, and general permit space ventilation techniques. Course features workshops on confined space classification permits and program evaluation. This course is offered on a Pass/No Pass basis with the option to receive a letter grade.

Type of Class/Course: Degree Credit

Textbook: 29 CFR §1910, General Industry Regulations. Mangan Communications, Inc.: Davenport, Iowa, 2008. Print.

Cal-OSHA General Industry Safety Orders, Mangan Communications, Inc.: Davenport, Iowa, 2008. Print.

Haight, Joel. *The Safety Professionals Handbook: Management Applications*. 2nd ed. Vol. 1. Des Plaines: American Society of Safety Engineers, 2012. Print.

Haight, Joel. *The Safety Professionals Handbook: Technical Applications*. 2nd ed. Vol. 2. Des Plaines: American Society of Safety Engineers, 2012. Print.

Additional Required Materials: None

Course Objectives: By the end of the course, a successful student will be able to

- 1. list the requirements of OSHA's Permit-Required Confined Spaces for General Industry Standards,
- 2. describe, evaluate and control safety and health hazards associated with confined space entry, and
- 3. report, in writing, violations of the Permit-Required Confined Spaces Standards.

Course Scope and Content:

Unit I Scope and Definitions

A. 29 CFR 1910.146(a) and (b)

B. CCR, Title 8, §5156

Unit II General Requirements

A. 29 CFR 1910.146(c)

B. CCR, Title 8, §5157

C. Workshop



D. VentilationE. Instrumentation

Unit III Permits

A. 29 CFR 1910.146(d-i) B. CCR, Title 8, §5158

Learning Activities Required Outside of Class: None

Methods of Instruction:

- 1. Lecture
- 2. Group exercises
- 3. Workshops

Methods of Evaluation:

- 1. Written final exam
- 2. Performance observation