

California Health and Rescue Training



Parallels and Paradigms in Confined Space and Grain Handling Facilities



Instructor: Kent Freeman

Kent Freeman

- Roseville Fire Department (retired)
- Captain, USAR Task Force #7 (R.F.D.)
- Coordinator of portions of U.S.A.R. operations
- Author & developer of Confined Space Rescue Awareness program for State Fire Training
- Project Leader for Confined Space Rescue Technician program for State Fire Training
- Committee member for Trench Rescue Technician program for State Fire Training

The Objective

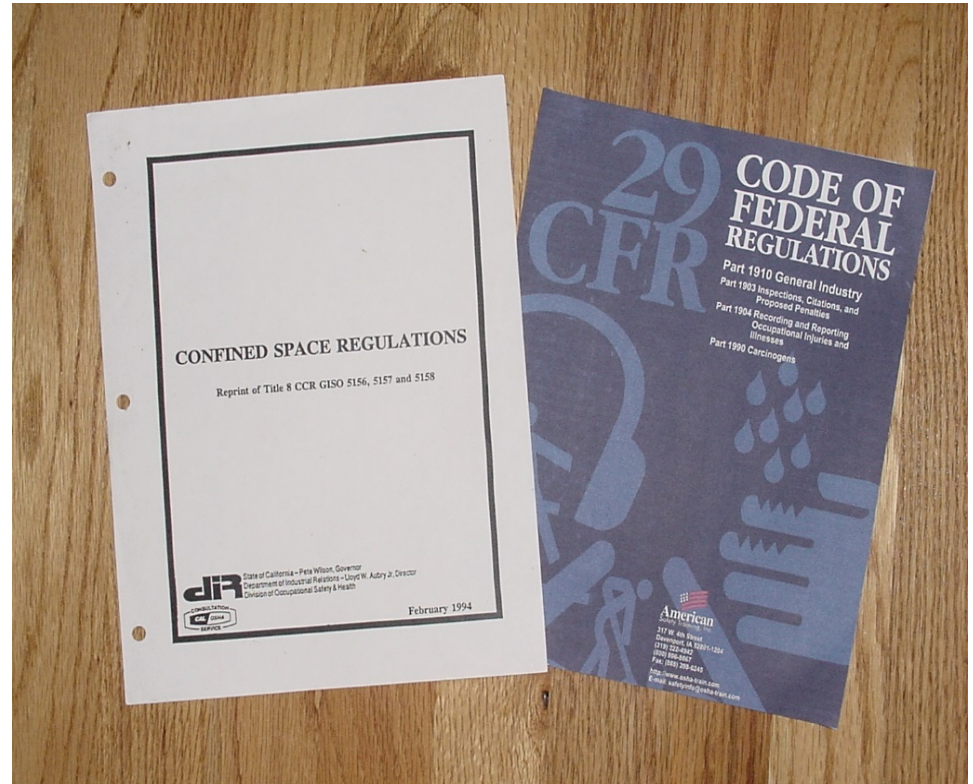
To share with you information regarding the applicable regulations as well as concepts and techniques that create a safe and defensible entry program.

(Program Disclaimer)



This Is a Regulated Operation

- Code of Federal Regulations - 1910.146
- California Code of Regulations - 5156, 5157, and 5158
- Other related regulations – lock-out/tag-out, respiratory, fall protection, etc.



Section 5156 - Confined Space Scope

Provides the scope of the confined space regulation and lists those industries that are exempt from Section 5157
(the permit required confined space section)

Other Confined Spaces (5156 b2)

- Construction Operations regulated by Article 37 1950 - 1962
- Shipyard Operations regulated by 8355
- Natural Gas Vaults defined in title 49 CFR
- Marine Terminal Operations defined in 3460
- Telecom Manholes and Vaults regulated by 8616
- Electrical Utility Underground Vaults
- Agriculture Operations defined in 3437
- Grain Handling Facilities regulated by 5178

Section 5157 - Permit Required Confined Space

Provides minimum requirements for entry into Permit Required Confined Spaces as well as example programs and procedures in the appendix

Section 5158 – Other Confined Space Operations

Provides minimum requirements for entry for industries that are exempt from Section 5157 (some industries may have specific regulations)

Confined Spaces are entered based on

- Is the space a confined space?
- Is the space a permit required space?
- What is the purpose of your entry?
 - Are you an exempted industry?
- Are you eligible for a C5 Alternate Entry?
- Have you Reclassified the Space (C7)?

Mandatory Confined Space Positions

- Entry/Rescue Supervisor
- Attendant
- Authorized Entrant

Optional Confined Space Positions

- Monitoring Officer
- Rigging Officer
- Ventilation Officer
- Air Supply/Respiratory Officer
- Line Tender
- Lock-Out/Tag-Out officer
- Safety Officer
- Back-Up Entrant

Mandatory Confined Space Components

- Training
- Equipment
- Written policy (including permit)
- Lock-out/tag-out
- Rescue/stand-by provision
- Atmospheric monitoring
- Retrieval line
- Appropriate harness
- Mechanical device (advantage)
- Communications

Optional Confined Space Components

- Ventilation
- Respiratory
- Lighting

NOTE: Conditions could make these mandatory

So you are an Exempted Industry

- Grain Handling Facilities
Title 8 Section 5178

Subchapter 7. General Industry Safety Orders
Group 16. Control of Hazardous Substances
Article 109. Hazardous Substances and Processes

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§5178. Grain Handling Facilities.

(a) Scope:

(1) This section applies to all grain handling facilities, including grain elevators, outdoor flat storage and flat storage structures, feed mills, flour mills, rice mills, dust pelletizing plants, dry corn mills, soybean flaking operations, and the dry grinding operations of soycake.

(2) For the purposes of this section, the term "grain" includes raw and processed grain, grain products, and cottonseed.

(A) The term "grain" is limited to the kernel and does not include the stalk or other vegetative matter of the grain plant.

(3) This section contains requirements for the control of grain dust fires and explosions, and certain other safety hazards associated with grain handling facilities.

(4) This section does not apply to seed plants which handle and prepare seeds for planting.

(b) Entry into grain storage structures, flat storage structures and work on outdoor flat storage.

(1) The employer shall either issue written authorization for entering bins, silos, tanks or other confined spaces, or provide a qualified supervisor during the entire operation.

(A) The written authorization shall certify that the precautions contained in this section and in section 5158 have been implemented prior to employees entering confined spaces. The written authorization shall be maintained on file for inspection by the Division.

(B) Prior to the entry of a confined space, the atmosphere shall be tested. If the oxygen content is less than 19.5 percent (%), or combustible gas or vapor is detected in excess of 10% of the lower explosive limit, or combustible particulate is detected in excess of 20 percent (%) of its lower

So you are an Exempted Industry

- Grain Handling Facilities
Title 8 Section 5178
- Updated / Revised in 2006

STATE OF CALIFORNIA - DEPARTMENT OF INDUSTRIAL RELATIONS

ARNOLD SCHWARZENEGGER, Governor

OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

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NOTICE OF PROPOSED MODIFICATION TO

CALIFORNIA CODE OF REGULATIONS

TITLE 8: Chapter 4, Subchapter 7, Article 15, Section 3482, and
Article 109, Sections 5161 and 5178
of the General Industry Safety Orders

Grain Handling Facilities

Pursuant to Government Code Section 11346.8(c), the Occupational Safety and Health Standards Board (Standards Board) gives notice of the opportunity to submit written comments on the above-named standards in which modifications are being considered as a result of public comments and/or Board staff consideration.

On April 20, 2006, the Standards Board held a Public Hearing to consider revisions to Title 8, Sections 3482, 5161, and 5178 of the General Industry Safety Orders. The Standards Board received written comments on the proposed revisions. The standards have been modified as a result of these comments and Board consideration.

A copy of the full text of the standards as originally proposed, and a copy of the pages with the modifications clearly indicated, are attached for your information. In addition, a summary of all written comments regarding the original proposal and staff responses is included.

Any written comments on these modifications must be received by 5:00 p.m. on October 2, 2006, at the Occupational Safety and Health Standards Board, 2520 Venture Oaks Way, Suite 350, Sacramento, California 95833. The standards will be scheduled for adoption at a future business meeting of the Standards Board.

The Standards Board's rulemaking files on the proposed action are open to public inspection Monday through Friday, from 8:00 a.m. to 4:30 p.m., at the Standards Board's office at 2520 Venture Oaks Way, Suite 350, Sacramento, California 95833.

Inquiries concerning the proposed changes may be directed to Keith Umemoto, Executive Officer at (916) 274-5721.

OCCUPATIONAL SAFETY AND HEALTH
STANDARDS BOARD

Date: September 11, 2006

Keith Umemoto, Executive Officer

Grain Handling Facility Positions

- Qualified Supervisor
- Authorized Employee
- Second Employee
 - When an employee enters at or above the level of the grain or when an employee walks or stands on grain that poses an engulfment hazard
- Qualified Rescue Personnel

Grain Handling Facility Components

- Initial and annual employee training
- Atmospheric Monitoring
- Lock-Out / Tag-Out
- Full Body Harness or Boatswains Chair
- Lifeline
- Housekeeping to address dust accumulation
- Emergency Action Plan

California Health and Rescue Training

Wheat Silo Rescue

Yolo County, California

March 2012



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For further information contact us at:

www.calrescue.com

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Failing to Plan is Planning to Fail