

SESSION 2 (1 hour)
SAFE GRAIN BIN ENTRY

Lesson Plan: Student Guide
Safe Grain Bin Entry

Overview

One of the most significant hazards faced at grain handling facilities is entering grain bins. The risks include entrapment, engulfment, suffocation and machine hazards. During the last year, OSHA has made its interest in protecting workers at grain handling facilities clear. Noting an increase in engulfment and entrapment related injuries and fatalities at grain handling facilities, OSHA released two separate warning notification letters (August 4, 2010 and February 1, 2011) to over 13,000 employers throughout the nation. This lesson will provide an overview of bin entry hazards, prevention methods and OSHA requirements related to grain bin entry.

Lesson Objectives

Upon completion of this topic students should be able to:

1. Understand the reasons employers and employees enter grain bins.
2. Identify the hazards related to grain bin entry.
3. Understand OSHA's requirements related to grain bin entry, as found in 29 CFR 1910.272, and appropriate prevention methods.

Training Resources

1. PowerPoint Presentation with instructor notes (Color)

Activities and Classroom Procedures

1. Review course objectives
2. PowerPoint slides with class discussion
3. Case Studies

Lesson Roadmap

1. Why Enter a Grain Bin?
 - a. Slides to be used : 1-2
 - b. Objectives Covered : 1
 - c. Exercise/Demos : None
 - d. Training Aids : None

2. Grain Bin Entry Hazards
 - a. Slides to be used : 3-9, 19
 - b. Objectives Covered : 2
 - c. Exercise/Demos : Video content linked in PowerPoint slides (Slide 3)
 - d. Training Aids : None

3. Bin Entry Requirements and Prevention Methods
 - a. Slides to be used : 10-19
 - b. Objectives Covered : 3
 - c. Exercise/Demos : None
 - d. Training Aids : None

4. Case Studies
 - a. Slides to be used : 20
 - b. Objectives Covered : 2,3
 - c. Exercise/Demos : None
 - d. Training Aids : None

Evaluation and Assessment

- a. Interactive conversations

Resources/Web Sites

- Grain Handling Safety – OSHA Web Page - <http://www.osha.gov/SLTC/grainhandling/index.html>
- OSHA Hazard Alert – *Dangers of Engulfment and Suffocation in Grain Bins* – OSHA Web Page - http://www.osha.gov/SLTC/grainhandling/hazard_alert.html
- University of Arkansas Cooperative Extension, *Suffocation Hazards in Grain Bins* – Web Page - http://www.uaex.edu/Other_Areas/publications/PDF/FSA-1010.pdf
- Oklahoma State University Stored Products Research and Education Center, Grain Safety – Web Page - <http://storedproducts.okstate.edu/Safety.html>