

CONFINED SPACE ENTRY SAFETY

A Risk Management Resource for Silo & Tank Access



INTRODUCTION: A KNOWN DANGER IN STORAGE STRUCTURES

On farms and agribusinesses, silos, grain bins, manure pits and liquid storage tanks are critical—but dangerous—confined spaces. Their limited access, hazardous atmospheres, and potential entrapment risks make even brief entry a serious challenge. Proper programs are essential to protect workers from injury, regulatory penalties and operational disruption.

BENEFITS OF A CONFINED SPACE SAFETY PROGRAM

Protects Lives and Worker Health

- Incomplete ventilation and toxic gases (like silo gases and dust) can cause asphyxiation or respiratory failure. Safety programs can help manage those risks effectively.

Reduces Downtime and Disruptions

- Entrapment or atmospheric incidents can halt operations at crucial times (e.g., during loading/unloading).

Ensures Regulatory Compliance

- Even though OSHA's 29 CFR 1910.146 (confined-spaces) doesn't apply directly to farms, agriculture must follow the General Duty Clause and 29 CFR 1928.21, and parallel guidance applies from general industry.

Demonstrates Due Diligence

- Thorough policies, training and documented procedures reflect a safety-first culture, lowering the risk of fines or liability.

On AVERAGE, the [Bureau of Labor and Statistics reports](#) approximately 140 deaths per year with the most common being in silo or grain bin interior.



THE RISK IS REAL

- Confined spaces including silos, manure pits and tanks frequently involve hazardous atmospheres—oxygen deficiency, toxic gases, and dust.
- Entry within four to six weeks of filling silos dramatically increases risk due to fermenting gases; proper timing and respiratory protection are crucial.

ACTION STEPS: BUILDING A SAFE ENTRY PROGRAM

1. Identify and Label All Confined Spaces
2. Lockout/Tagout and Equipment Isolation
3. Atmospheric Testing & Ventilation
4. Entry Timing & Respiratory Protection
5. Assigned Attendants & Communication
6. Rescue Planning & Equipment
7. Training & Documentation

CONCLUSION: CONTROL RISK BEFORE YOU ENTER

Entry into silos, tanks or pits is inherently hazardous—but with thorough preparation, your team can manage the risk. A strong confined space safety program identifies hazardous areas clearly, ensures atmosphere is tested and ventilated, controls equipment and energy sources, provides monitoring and rescue infrastructure and maintains training and documentation.

Even without the full permit space regulation, applying OSHA's guidance, agricultural standards and NIOSH recommendations boosts safety and compliance. Mod Advisor can help design tailored silo entry procedures, deliver training, and build recordkeeping workflows to keep your operations safe and audit-ready.



BASIC CONFINED SPACE RESCUE PLAN OUTLINE

Purpose: Define the procedures for responding to an emergency in a confined space, including silo or tank entry.

Rescue Equipment:

- Full-body harnesses
- Tripod and retrieval winch
- SCBA or supplied air respirators
- Two-way radios

Rescue Team Roles:

- Entrant: trained and equipped with PPE
- Attendant: remains outside, monitors and calls for help
- Rescuer: initiates non-entry retrieval if necessary

Emergency Communication:

- Radios or pre-established hand signals
- Emergency contact list posted on site

Training & Drills:

- All personnel trained annually
- Rescue drills conducted semi-annually and documented

Rescue Service Coordination:

- If internal rescue is not feasible, coordinate with local emergency services in advance and ensure they are familiar with your facility layout and entry procedures.

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