

TOOLBOX TALKS

Working Safely around Grain Bins

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TOPIC: Working Safely Around Grain Bins

Each year there are dozens of fatalities worldwide that are the result of unsafe work practices in and around grain bins.

There are three primary hazards associated with grain bins:

- Flowing Grain Hazards:** This hazard is present when the grain is flowing in the bin. The auger starts to remove grain from the bin and the grain flows downward toward the center of the bin. A worker standing on the grain will have no time to exit the grain bin and will be engulfed.
- Crusted Grain Hazard:** Sometimes grain can form a crust across the top of the surface leaving a hollow cavity below. This gives the illusion of a "safe" walking area. In fact, if someone were to step on the crust, it will collapse and the person will fall into the cavity below, becoming buried instantly.
 - o Another type of crusted grain hazard exists when the grain forms vertical columns against the bin wall, leaving a V-shaped cavity in the center of the bin. A worker might attempt to loosen the grain so that it can flow into the auger, but the worker could be engulfed in the process.
- Inhalation of agents:** Grain bins might have elevated concentrations of carbon dioxide, which is heavier than air and can cause dizziness and unconsciousness. There may also be high concentrations of mold spores and other allergens. Also, the use of phosphine gas to fumigate grain bins represents a special hazard.
 - o Phosphine gas is heavier than air and is very toxic. It is used to kill insects and other pests in the upper layers of grain bins. If humans are exposed to phosphine they could become very sick or even die.

What can you do to limit prevent accidents in or around grain bins?

- When working in or around a grain bin, always wear a full-body (5-point) harness and tie off securely to points designed to be able to withstand the force of a falling man.
- Lockout all augers/transfer systems prior to entering a grain bin.
- Carry a weighted stick (plug-stick) to probe for cavities and crusting.
- Use a four-gas meter before entering the grain bin to ensure the atmosphere is safe for human occupancy.

Questions to Generate Discussion

- What is the most common oversight made with regard to grain bin safety at this workplace?
- Why is it important to lockout the auger in a grain bin before entering?

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Discussion Date: _____

Employee Participants:

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