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GRAIN HANDLING SAFETY: PRICELESS PRACTICES
Grain is valuable, but lives are worth much more.

In the process of handling grain, producers are exposed to a range of safety hazards both during harvest and once the grain is stored.

Jess McCluer, vice-president of Safety and Regulatory Affairs at the National Grain and Feed Association (NFGA), and Chair of the Board of Directors and Chief Executive Officer for Agricultural Safety and Health Council of America (ASHCA), encourages producers, grain elevator managers and their employees to maintain awareness of grain-related hazards, especially during harvest season.

"It's important for anyone who works around grain to take time to focus on basic safety protocols," McCluer says. "Common grain handling hazards include bin entry, energy isolation and combustible dust. Efforts to create a culture of safety at the farm and/or business helps instill the value of safety for everyone involved in handling grain."

Bin entry safety is regularly addressed, stressing the importance of using proper safety equipment and bin entry practices at all times to avoid grain entrapment. In addition to grain movement, anyone entering a grain bin may be exposed to airborne grain dust, microbial spores, inadequate oxygen to sustain breathing, etc.

Mechanical equipment inside grain storage structures includes augers and conveyors, which can present serious entanglement and amputation hazards. Without properly guarded moving parts, worker limbs can easily be caught in the moving equipment.

Hazardous atmospheres inside a grain storage bin includes gases given off during grain spoiling or as a result of grain fumigation. Other airborne contaminants include molds, chemical fumigants and gases associated with decaying and fermenting silage. Exposure to chemical fumigants may cause permanent central nervous system damage and could lead to a worker losing consciousness while inside the bin.

Key grain handling safety practices when working around grain bins include:

1. Don’t enter a bin unless it’s absolutely necessary.
2. Isolate all energy by completing lockout/tagout procedures.
3. Make sure everyone working around the bin is aware that someone is working inside it.
4. Never enter a bin when you’re alone. Always have at least one additional person on standby outside the bin who can summon help if an accident occurs.
5. Test the air within a bin or silo to assess the presence of combustible and toxic gases and to determine if there is sufficient oxygen inside the bin.
6. Always use a body harness with a lifeline and ensure that the lifeline is secured before entering the bin.
7. Avoid walking down grain or similar practices.

“One common incident that occurs around grain handling facilities is slips, trips and falls,” McCluer says. “There are many different scenarios that contribute to this type of accident when you work around grain.”

According to the U.S. Department of Labor, slips, trips and falls are the most common occupational accident. Statistics show that 15% of accidental deaths are caused by falls, second only to moto vehicle accidents. More than 17% of disabling work injuries were caused by falls.

At grain and feed facilities, causes of these accidents often involve weather, clutter, loose material, a slippery or uneven surface, poor visibility, floor openings, elevated surfaces, improper footwear, unsafe behaviors and obstructions.

Ice, snow, rain condensation and mud are all significant slip and fall hazards. One of the biggest challenges in dealing with these weather-related hazards is that they constantly change. Staying aware of the weather forecast and maintaining awareness of these transient hazards can help reduce potential for slips, trips and falls

Maintain safe walking surfaces by checking them regularly as weather changes occur. Be aware that even rain can cause surfaces to become slippery. As much as possible, choose the driest path and smoothest surface.

Clutter creates trip hazards in a working area. Put things where they belong and maintain separate working areas from storage areas.

Painted ladders can present slip hazards. Adding grip tape to ladder rungs or swapping ladders out for a ladder with a rough surface will help reduce slip hazards on ladders.

Uneven surfaces may be created over time, by damage to a floor or naturally occurring terrain. Awareness of the surface helps, but it can still present a hazard during times when workers are concentrating on work activities. If an uneven surface cannot be remedied, make sure it’s easy to see. If possible, develop a walk path that avoids the uneven surface.

Poor visibility, such as working in an area where light is limited or moving from an area with bright light to a darker area, can set the stage for a slip, trip or fall. Add lighting if necessary, to make areas well lit.

Vehicles can pose slip, trip and fall hazards in many forms. Visibility, weather conditions and vehicle surfaces are all factors in these kinds of incidents. Before exiting a vehicle, look for potential hazards. When outside a vehicle, keep your eyes on the walking path and be mindful of any conditions that could affect vehicle surfaces.

Loaders and skid steers require the use of proper footholds and handholds when climbing into and out of cabs. Maintain three points of contact when climbing and stay on approved surfaces.

The most common slip, trip and fall accidents involve entering and exiting the cab of a truck. Maintain three points of contact and move at a controlled pace.

Choice and condition of footwear can affect the potential for slips, trips and falls. Work shoes wear out over time. To reduce the potential for an accident, shoes must provide adequate traction and support. Replace work boots with an aggressive tread for slip resistance. Shoes should also provide good ankle support to prevent twisted ankles. Shoes with a defined heel provide added traction when climbing ladders.

When walking through mud, snow, oil, etc., be aware that the shoe surface changes, causing the traction the shoe provides to also change.

Behavior has a direct correlation with safety in a work environment. It is often the root cause of slips, trips and falls. Unsafe behavior and lack of hazard recognition can lead to an unsafe work environment. Don't hesitate to review recommended safety practices to ensure that work is completed as safely as possible.

"We all want to get the work done as soon as possible, but me must keep safety in mind," McCluer says. "Doing our work quickly doesn't always mean we're doing things the right way. We emphasize doing tasks the least hazardous way, recognizing the importance of safety."

Additional grain handling safety and training resources are available at https://imis.ngfa.org/members/t/ngfa/Training/Training.aspx?hkey=3243531d-a810-406b-8541-f3815e4c0f56.

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