Dealing with steel bin companies that are responsive to your needs and can accommodate these requirements.

Would you buy a family car without seat belts? Well, why would you even consider erecting a steel storage bin in the future that could not provide a reasonable work restraint system with a properly secured lifeline?

7. Emergency Preparedness - Who do you identify as the emergency response group? When was the last time they trained at your site with your equipment and employees?

Check with your local fire department for expected response time to your location for this type of incident. Are they trained and equipped to deal effectively with a potential grain entrapment at your facility? Does your 911 dispatcher even know what a grain entrapment is? When was the last time your emergency response group conducted a drill at any of your facilities?

Consider forming a joint emergency response group comprised of private industry and volunteer fire fighters. We need to share expertise and limited resources.

It is time for a paradigm shift in the grain industry towards prevention and safer, more efficient grain handling systems.

Bin Entry Kit to Secure Lifelines and Minimize Slack

GEAPS: Is an international professional society dedicated to providing its members with forums to generate leadership, innovation and excellence in grain-related industry operations. GEAPS’ Chapters and its members are the knowledge resource for the grain handling industry. The local Chapters hold regular meetings to discuss safer and more efficient ways to handle grain.

We thank the following chapters for sponsoring the production and distribution of these flyers.

CRB — Cornbelt in Bloomington, IL
GRI — Greater Iowa in Ames, IA
HSR — Hoosier in Delphi, IN
MAM — Mid-America in Omaha, NE
MDA — Mid-Atlantic in Baltimore, MD
MSO — Michigan / Southern Ontario in Frankenmuth, MI
MDS — Mid-South in Stuttgart, AR
MPL — Minneapolis in Minneapolis, MN
SXL — Siouxland in Sioux City, IA
SWY — Seaway in Toledo, OH

NEW SATRA Grain Entrapment Prevention & Rescue Training Video available after Feb. 1

STOP!

Best Management Practices

1. Stay out if possible
2. Never enter alone
3. Never enter untrained
4. Follow entry permit
5. Shut down/lockout
6. Secure lifeline
7. Emergency preparedness

Design Parameters

1. Increase grain conditioning capabilities
2. Larger access doors
3. Restraint systems with secured lifelines
4. Safer and more efficient reclaim systems

For more information go to ... www.grainentrapmentprevention.com
Seven Grain Entrapment Training Principles

1. Develop a Zero Entry Mentality. Stay out of the bin, if at all possible.

a. Grain Conditioning – Learn and practice better stored grain quality management and monitor the condition of the grain more closely. Don’t let your grain spoil. Condition it properly, and monitor it closely. How many $800 are stored in your bin? Would you pay to watch it closely?

b. Reclaim Systems – Design and install reclaim systems that can operate safely and efficiently without personnel having to enter the bins. Build and install safer, more efficient reclaim systems. Provide larger sump discharge holes in closer proximity to each other in the bin floor. Commercial facilities should consider intermediate holes with minimum 24-inch-x-24-inch openings every 8 – 10 feet. Draw-off capacity and unloading design should complement handling capacities of the grain handling system. Center holes on 90 foot or larger bins should be 36-inch-x-36-inch or 48-inch-x-48-inch. Guard these holes properly to prevent injuries.

c. Access Points, Doors, and Work Platforms – Provide larger service tunnels, at least 7 foot high by 7 foot wide tunnels. Install larger overhead access doors, not a simple 24-inch-round opening in the side of the bins. These larger access doors should have a minimum 3-foot-x-3-foot work platform under them, with hand-rails for safer operating conditions.

2. Never enter alone – The entry supervisor, entrant and attendant must work together and be able to communicate effectively with each other. This is not a one-person work process. NEVER – NEVER enter a bin with grain in it by yourself.

3. Never enter untrained – The employer should provide annual hands-on training for entrants, attendants, and local rescue response teams. Anyone entering a bin with grain in it must receive hands-on training. This training must involve a qualified instructor who is capable of teaching all relevant parts of the 29 CFR 1910.146 and 1910.272 standards along with the use of bin entry kits, anchor points, and other relevant topics. Employees shall be able to demonstrate that they are competent to enter grain bins safely or not to enter at all.

4. Follow entry permit – Complete the permit properly, and take the time required to identify all existing hazards. Have all potential hazards been identified and addressed?

5. Shut down and lockout equipment – Follow proper lockout and tag procedures. All equipment involved in the storage, drying, and material handling systems should be locked out and tagged during entry, service, and maintenance operations. According to OSHA, compliance with the Lockout/Tagout standard (29 CFR 1910.146) prevents an estimated 120 fatalities and 50,000 injuries each year.

6. Secure Lifeline – Maintain control of the lifeline. If you must enter a bin with grain in it, you must receive hands-on training. This training must involve a qualified instructor who is capable of teaching all relevant parts of the 29 CFR 1910.146 and 1910.272 standards along with the use of bin entry kit, anchor points, and other relevant topics. Employees shall be able to demonstrate that they are competent to enter grain bins safely or not to enter at all. When is your next hands-on training session scheduled?

7. Communicate – The employer should ensure that entrants, attendants, and rescue personnel are able to communicate effectively with each other. This is not a one-person work process.

It is estimated that over the course of the past 25 years, 65-70% of these grain entrapments happen ON-FARM, while 30-35% happen OFF-FARM. Most fatalities ON-FARM take place in grain bins which are relatively small (under 50,000 bu. capacity). The farmer generally entered the bin from the top access door and was working by himself and not properly secured with a life-line. Another sobering fact is that 20% of the fatalities ON-FARM involves victims under 16 years of age. You can’t hire someone under 16 to work in a grain bin in an OFF-FARM business, however, (6) victims in 2010 were under the age of 16.

It is also estimated that between 1980 and 2010, corn has been involved in approximately 45% of the grain related entrapments.

Recent Incidents & Deaths in Ag Sector

Sept. 13, 2011 Man rescued from 109,000 bu. corn bin at Heartland Co-op near Elkerton, IA.

Sept. 6, 2011 An employee at Max Yield Cooperative in Ottumwa, IA. died in a corn bin.

June 11, 2011 Fargo, N.D. man died in corn bin at Dakota Ag Cooperative.

June 7, 2011 Man died in corn bin in Iowa at the Cooperative Elevator Association.

June 6, 2011 An employee fell from grain entrapment near Ropesville, TX.

May 31, 2011 Woman fell to her death in elevator, near Amarillo, TX while trespassing at 2 a.m.


Grain Entrapments Reported & Fatalities

Year | Fatalities | Entrapments | Fatalities (% of Entrapments)
--- | --- | --- | ---
2001 | 28 | 51 | 54%
2002 | 16 | 38 | 42%
2003 | 15 | 33 | 45%
2004 | 12 | 24 | 50%
3 yr. Avg. | 18.8 | 38 | 47%