



Aug. 18, 2010

Dear Grain Storage Facility Operator:

I am writing to you today to remind you about your responsibility to protect your workers, preventing them from becoming entrapped or risking loss of life in your grain storage facility.

Minnesota OSHA (MNOSHA) conducted 84 nonfatal inspections and eight fatality inspections in grain facilities from 2003 to 2009. Of the eight fatalities, three resulted in MNOSHA issuing citations for entrapment hazards and four resulted in citations for lack of employee training.

Unfortunately, these were not rare occurrences. Researchers at Purdue University documented 38 grain entrapments in 2009 alone. A review of federal OSHA inspection data found grain entrapments generally occur because of employer negligence, noncompliance with OSHA standards, and overall poor safety and health practices.

During Minnesota OSHA's fatality, near-miss, serious injury and planned compliance investigations, inspectors determined a main reason for these accidents was employees walking on top of the grain. Often, the employees who became engulfed in grain went inside a grain bin to try to dislodge or break up the grain and the buildup of grain collapsed below them or from the sides of the bin.

Because Minnesota OSHA noticed an increase in the trend of serious accidents and fatalities involving walking on top of grain in bins, it added grain industries to its strategic plan for 2009 through 2013. Minnesota OSHA will conduct planned compliance inspections and offer free safety and health consultations at grain handling facilities.

All employers, and especially those in high-hazard industries such as the grain industry, must recognize and prevent workplace hazards. As an employer, you must be vigilant and always follow the long established, common sense safety practices that will prevent these tragedies. OSHA's Grain Handling Facilities standard (29 CFR 1910.272) and other safety information are online at www.osha.gov/SLTC/grainhandling. The standard contains the rules that are required to be followed.

When workers are going to enter storage bins, employers must (among other things noted in the standard):

- 1) turn off and lock out all powered equipment associated with the bin, including augers used to help move the grain, so the grain is not being emptied or moving out of or into the bin. Standing on moving grain is deadly; the grain acts like quicksand and can bury a worker in seconds. Moving grain out of a bin while a worker is in the bin creates a suction that can pull the worker into the grain in seconds.
- 2) prohibit "walking down" grain and similar practices where an employee walks on grain to make it flow.
- 3) provide all employees a body harness with a lifeline or a boatswain's chair and ensure it is secured prior to the employee entering the bin.

- 4) provide an observer stationed outside the bin or silo being entered by an employee. Ensure the observer is equipped to provide assistance and that their only task is to continuously track the employee in the bin.
- 5) prohibit workers from entry into bins or silos underneath a bridging condition or where a buildup of grain products on the sides could fall and bury them.
- 6) test the air within a bin or silo – prior to entry – for the presence of combustible and toxic gases and to determine if there is sufficient oxygen.
- 7) ensure a permit is issued for each instance a worker enters a bin or silo, certifying the precautions listed above have been implemented.

As an employer of workers facing these hazards, you have the legal obligation to protect and train your workers. OSHA will not tolerate noncompliance with the Grain Handling Facilities standard.

In several cases involving worker entry into grain storage bins, MNOSHA found the employer was aware of the hazards and of the OSHA standards, but failed to train or protect the workers entering the bin. MNOSHA has pursued these cases and will continue to use its enforcement authority to the fullest extent possible pursuant to the provisions of the Minnesota Occupational Safety and Health Act of 1973.

I am calling on you today to prevent these needless deaths and injuries. Minnesota OSHA Workplace Safety Consultation, which is separate from MNOSHA Compliance, is available to assist you in complying with Minnesota OSHA standards. If you have questions or want more information, call Minnesota OSHA at (651) 284-5050 or visit www.dli.mn.gov/osha/grainhandling.asp.

Sincerely,
James Krueger, Director
Minnesota Occupational Safety and Health Division