



UPDATE

Grain and Feed Association of Illinois • 3521 Hollis Dr. • Springfield IL 62711 • 217/787-2417

TO: Members of the Safety-Health-Environmental Services Program

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This newsletter is an update of my March 5, 2013 newsletter which dealt with a settlement between OSHA and a member company allowing employees to be in grain bins with the sweep auger operating as long as specific abatement procedures were followed. On May 3 of this year OSHA made their Memorandum on sweep auger operation official national policy. The information sent out prior to the May 3 memo was officially in place but only for the companies that had contested their citations. I should clarify that some state-plan OSHA states (ie Iowa, Indiana) may not accept the Memorandum however Illinois does not have a state OSHA so they will follow the national policy.

ACTION ITEM: Point number 3 in the national policy discusses having grates/guards on reclaim holes for sub-floor augers. Now would be a good time to measure sump hole openings before the bins are filled so you can manufacture covers and have them ready when it's time to clean out the bins in a few months.

Please remember that we are not back to cleaning bins the “old school” way.



There are 10 sections to the May 3, 2013 Memorandum and it is included with this Update Newsletter. The original memorandum or document was called:

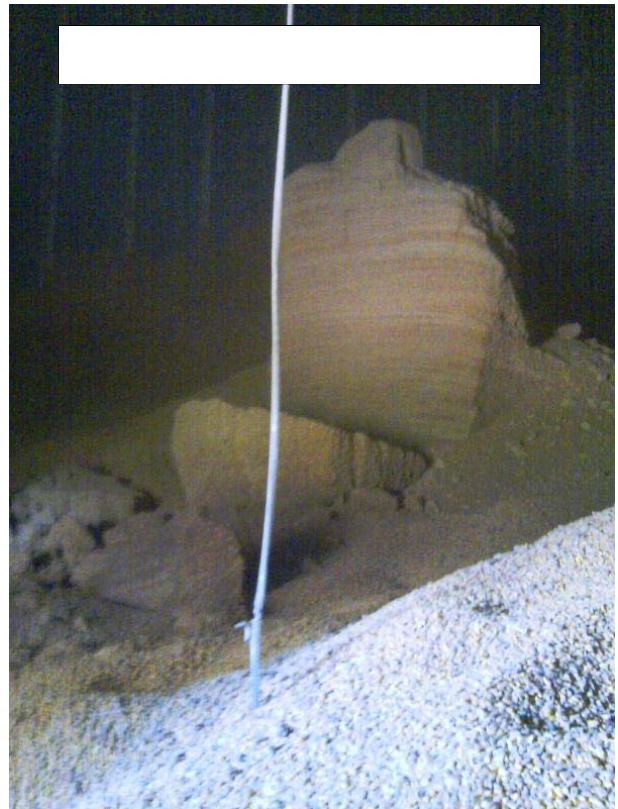
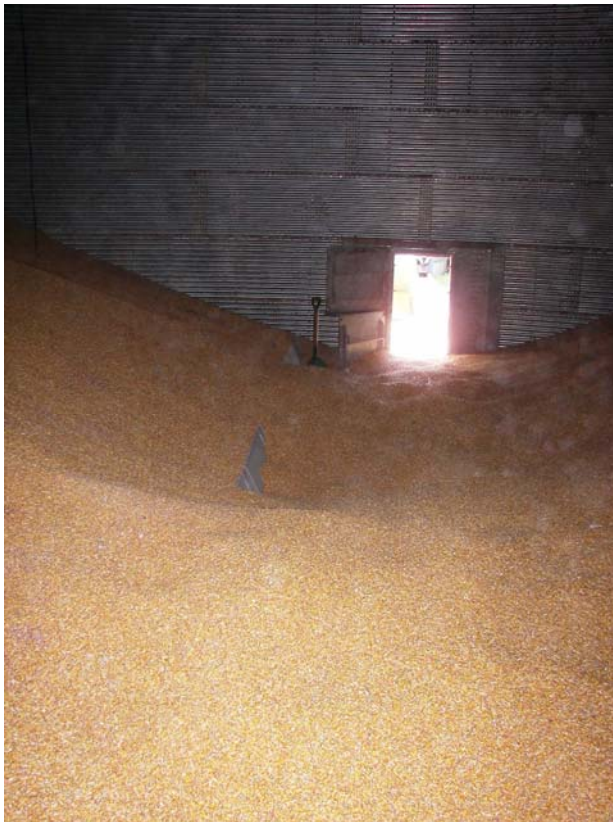
**Criteria for Sweep Auger Alternative
Protection Bin Specific Abatement Measures (SAM)**

While the May 3 Memorandum does not have an official name it does still have 10 sections. The language from the memo is below followed by my comments in **bold**.

Enforcement of 29 CFR 1910.272(g)(1)(ii)

In evaluating compliance with Section 1910.272(g)(1)(ii) for hazards associated with energized sweep augers inside storage bins, implementing all of the following engineering and work practice controls will, in most cases, appropriately eliminate or minimize the danger to employees:

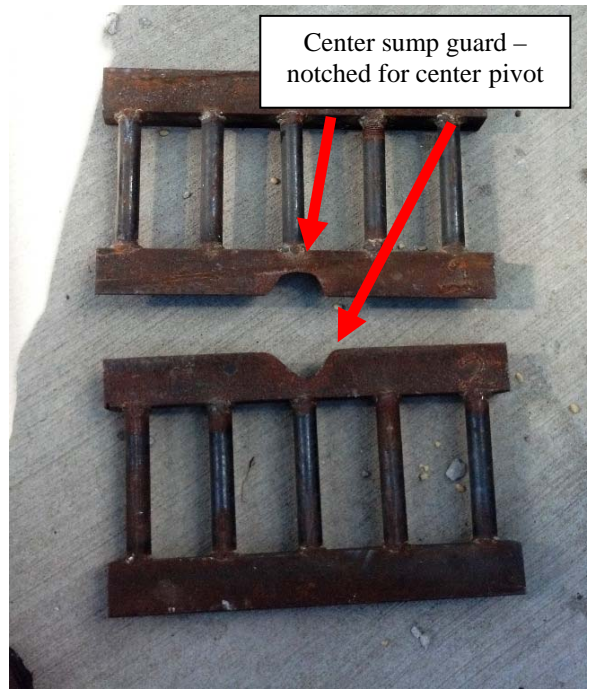
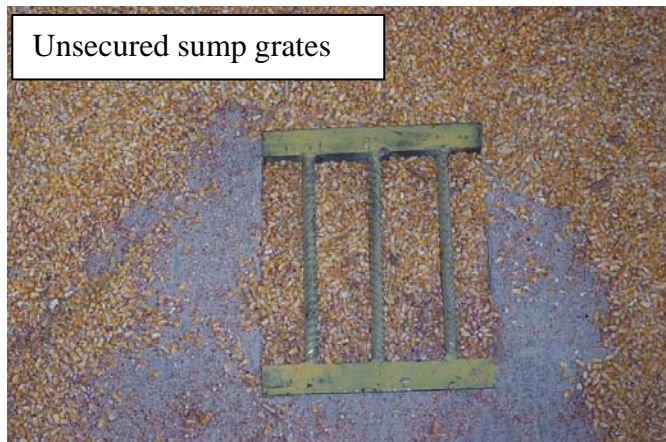
1. Workers may not enter grain bin until after issuance of a bin entry permit, certifying that the precautions contained in 1910.272 (g) have been implemented, unless the employer or employer representative (who would otherwise authorize the permit) is present during the entire operation. **This is taken directly from the 1910.272 grain storage structure entry section of the standard. Each time an employee enters a bin the hazards must be evaluated.**

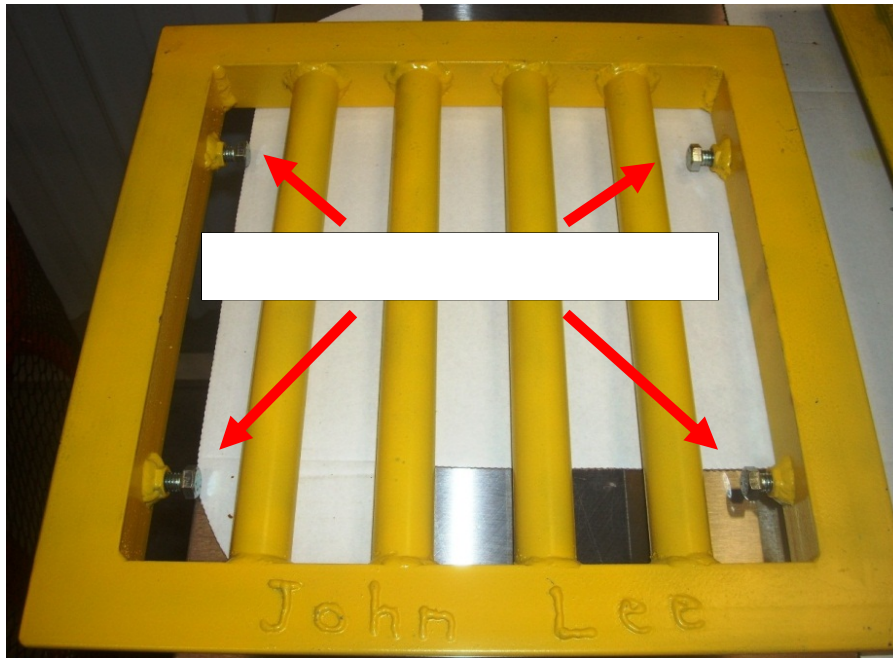


2. Before entering the bin to set up or dig out the sweep auger, the subfloor auger and the grain entry points must be de-energized and locked out.



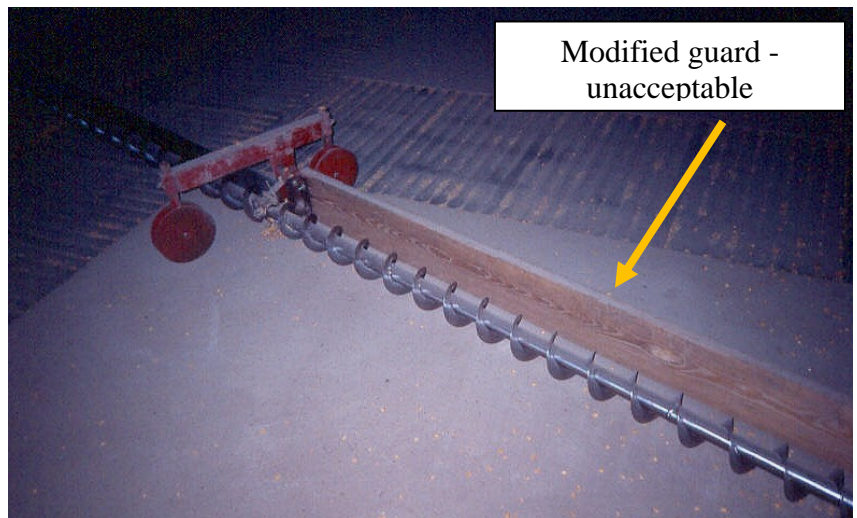
3. Before operating the sweep auger, the grate/guard on the sub-floor auger must be in place and secured. See below for examples of sump guards. It states that they **must be secured**. The photo on the left is an unsecured sump grate. If sump gates are closed (& locked out) and full of corn you don't need the grates. As soon as employees are scooping into the center or secondary sump holes they must be guarded. Please note the sump grates must comply with "Subpart O." This is covered later.





4. Employees may not walk on the grain where the depth of the grain presents an engulfment hazard. **This is taken directly from the 1910.272 grain storage structure entry section of the standard. Waist deep grain is the maximum allowed depth.**

5. All sweep augers (including portable sweep augers) must be provided with guards that protect against contact with moving parts at both the top and back areas. The only unguarded portion of the sweep auger should be the front point of operation.



6. An observer, in accordance with 1910.272(g), must always be positioned outside the storage bin monitoring the activities of workers inside the bin. **This is taken directly from the 1910.272 grain storage structure entry section of the standard.**
7. If a worker enters the bin while the sweep auger is energized, the employer must utilize engineering controls within the grain bin to prevent workers from coming into contact with the energized sweep auger. **The use of only administrative controls without the use of an engineering control is not a sufficient means of worker protection. An engineering control is a guard or device to keep employee away from the sweep**

auger. Administrative control is a policy. For example, company sweep auger operation policy states that all employees will be 7' away from operating sweep auger. There must also be an engineering device to go along with the policy.

Acceptable engineering controls may include:

- a. A sweep auger equipped with an attached guard that prevents the worker's contact with the unguarded portion of the auger in accordance with 29 CFR 1910 subpart O, Machinery and Machine Guarding.

Subpart O

Distance between Protective Covering and Moving Parts of Equipment	Maximum vertical opening (Horizontal openings are unlimited)
½ to 1 ½ inches	¼ inches
1 ½ to 2 ½ inches	⅜ inches
2 ½ to 3 ½ inches	½ inches
3 ½ to 5 ½ inches	⅝ inches
5 ½ to 6 ½ inches	¾ inches
6 ½ to 7 ½ inches	⅞ inches
7 ½ to 12 ½ inches	1 ¼ inches
12 ½ to 15 ½ inches	1 ½ inches
15 ½ to 17 ½ inches	1 ⅞ inches
17 ½ to 31 ½ inches	2 ⅛ inches
31 ½ inches to less than 7 feet	6 inches
More than 7 feet	Protective Covering not required

This is a chart from the 1910.217 mechanical power press standard. It shows how far away an employee needs to be in relationship to the hazards. The farther the distance away from the hazard the larger the opening can be on the guard. For example, if the subfloor auger is 6 inches below a sump grate or guard, the maximum opening is ¾ inches.

- b. A sweep auger equipped with a control mechanism, such as a dead-man switch or other similar device, which will allow for the sweep auger's operation only when the operator is in contact with device. If this method is utilized as a means of worker protection, the worker must be positioned at least seven feet from the energized auger at all times.

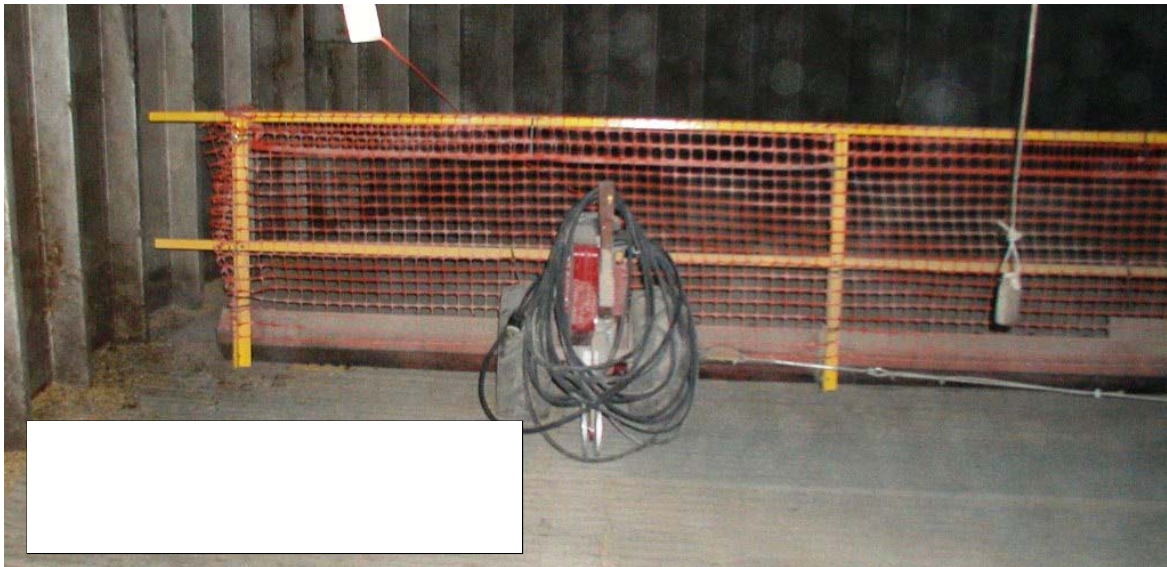
The push bar below has a dead-man switch like a lawn mower. If you let go of the handle, the sweep auger quits.



Engineering control must keep operator must at least 7' behind sweep auger at all times



- c. Any workers other than the operator of the sweep auger present in the storage bin while the sweep auger is energized must also be protected in a manner that keeps them out of the zone of danger. For example this may include the installation of guardrails or catwalks that prevent workers from entering the area within the path of the auger. **Portable guardrails are permissible, provided they are placed at least seven feet behind the sweep auger. Note: the use of a warning line, or other easily removable device, other than a portable guardrail, is not considered sufficient engineering controls. See pictures below for examples of acceptable guardrails.**



This is often referred to as a “whiskey barrel”. Note the foot-operated dead-man switch.

8. The auger is provided with a positive speed control mechanism or bin stop device that prevents the uncontrolled rotation around the bin. **A hydraulically driven sweep auger is a positive speed control. The bin stop is for direct drive sweep augers.**



9. Workers may not use their hands, legs, or other similar means to dislodge or otherwise directly manipulate the sweep auger while it is energized.



10. If maintenance/adjustments are necessary to the sweep auger, the auger must be unplugged, with the person making the adjustments maintaining the control of the plug, or locked-out in accordance with lock-out/tag-out procedures.



Those are the 10 sections in the May 3, 2013 Memorandum from OSHA dealing with the “Grain Handling Facility Sweep Auger Enforcement Policy”. We have included the complete document for your files.

As a final note:

- If the current policy of your company is not to enter grain bins with equipment running then that is the policy to follow. ***We are not suggesting you change it!***
- If staying out of bins with the sweep augers running does not work for your company and the 10 areas outlined above are followed, employees can be in grain bins with sweep augers running.

Please contact me if you have any questions about this information.