



GALENA FIRE DEPARTMENT
Standard Operating Guideline
STEEL GRAIN BIN FIRES

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Purpose: To establish standards for GFD operations during steel grain bin fires, including safety considerations, responsibility, precautions, safety considerations, and resources.

Establish Incident Command and select a Safety Officer, and a Water Officer as needed.

Shut off LP gas at the tank, and to the grain dryer.

Shut off electricity to the crop dryer if it can be done safely. The drying fan may be turned on later when good grain is being salvaged.

Attempt to shut off the supply of air to the fire. Unless the fire is burning in the crop dryer itself, the grain is usually on fire directly on top of the perforated floor or directly in front of the crop dryer. A grain fire burns extremely hot and is slow burning.

Unbolt the crop dryer and/or aeration fan from the transition and place a piece of sheet metal large enough to cover the opening between the crop dryer and the transition. Do not seal the top of the bin as that will cause pressure to build.

Salvage as much good grain from the bin as can safely be done. If the unloading auger is still working, unburned grain can be unloaded from the bin to the outside. If the unloading auger is not working, cuts can be made in the sides of the bin to remove good corn. Cut holes on opposite sides at about the same level and the same size (8inches- 12 inches square) to accommodate unloading. Watch for the level of the grain to be below the bin's entry door. When it is, an air-vac can be used to remove the unburned grain.

Consider running the crop dryer fan to ventilate the bin and eliminate smoke. Remember, forced air flow can feed the fire and make extinguishing more difficult. The fan should be shut down at which time firefighters closest to the burning level with hose streams can be used to extinguish the remaining burning grain.

Never enter a burning steel grain bin unless it can be done safely. Don SCBA gear before entering a bin to air-vac grain. Do not enter if there is danger that a firefighter may fall into a pocket of burning corn. Never enter a bin when the unloader, sweep-auger or stirators are running. Before firefighters enter, make sure these controls are shut off and the fuses pulled and properly locked out and accounted for (if relay-controlled, have someone guard the panel).

It is usually safe to enter a bin when the grain level has been lowered two to three feet above the perforated floor. Do not air-vac blackened or burning grain. Closer to the fire, the grain may be heated and be caramel colored. Black, smoldering grain will produce a flame when exposed to air.

Extinguish burning grain as it is exposed. If possible, probe the burning grain with a piece of hollow steel pipe with a sharpened point and holes in it and, pump water through the pipe. Burning grain is hard to put out and rekindles are common. When possible, blackened grain should be removed from the bin, spread on the ground or on a concrete pad at least 50 feet away from buildings or other combustibles.