



GALENA FIRE DEPARTMENT  
Standard Operating Guideline  
**SILO FIRES**

**SOG: 050**

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Fire Chief Signature

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

Unless there are flames impinging on surrounding structures or other exposures, silo fires by themselves are generally not an emergency. See 'Severe Respiratory Precaution' below.

Prior to arrival to a fire in a silo, the first arriving officer, or Incident Commander, should request, via dispatch, information regarding the type of silo, access and egress concerns, and any hazards associated with the incident (electrical wires, collapse, pending collapse, product spillage, etc.), as well as any other pertinent information. Additional specific information obtained and transmitted may include the following:

- Is this a Harvestore® Silo with a sealed bag on the top of it
- Is this a sealed, concrete stave silo with a sealed bag on top of it?

For either of the above-mentioned silos, fire department must have the maintenance company that handles that type of silo - they will be responsible for extinguishing the fire.

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

**SCBA is Mandatory – Severe Respiratory Precaution**

It is important to determine when a silo was filled or silage last added. Silo gas or methane gas is produced from silage filled and compacted in the silo within the past few hours or two weeks after fresh material is ensiled, producing nitrogen oxide that can mix with the moisture in the lungs and cause chemical burns in the breathing passages. This toxic gas depletes the amount of breathable air inside an enclosed space and can cause asphyxia and death. Breathing high concentrations of silo gas can cause a person to collapse and die within minutes. Symptoms of lesser levels of inhalation can be delayed for three (3) to thirty (30) minutes.

**Additional Considerations**

Make contact with the farmer or owner of the farm and determine the Insurance Company for both the silo and the contents. The owner and Insurance Company may want the silo fire to continue to burn and self-extinguish.

Be aware of the potential for explosion and/or collapse. Do not park apparatus near the involved silo.

Turn off electrical power to the silo unless the Insurance Company authorizes unloading of the silo.

Firefighters directly involved in the fire will wear full PPE including SCBA.

Thermal Imaging cameras can be used to locate hotspots within the silo.

Climbing the silo through the chute or ladder is hazardous. The wooden doors may fall in towards the silo or may fall outwards. Both situations have the potential to cause injuries.