



GALENA FIRE DEPARTMENT
Standard Operating Guideline
TRENCH COLLAPSE - INITIAL COMPANY ACTIONS

Randy A. Beadle
Fire Chief Signature

January 1, 2021

SOG: 049

Effective: 01Apr13
Revised: 01Jan2021
Page: 1 of 3

Purpose: This SOG establishes guidelines for initial company actions at the scene of a trench collapse incident, and is written to comply with the intent of NFPA 1670 at the awareness level.

Definitions

Recovery mode

Recovery mode is defined as situations where the victim is obviously expired or after a period of time during the rescue operation where time, conditions, or other factors have reduced the chance for the victim's survival to minimal.

Rescue mode

Rescue mode is defined as situations where the victim is believed or known to be alive. If this is unknown, personnel should operate in the rescue mode until time, conditions, or other elements make the chance for survival minimal.

Trench

An excavation in which the depth is greater than the width and is less than 15 feet wide.

Guideline

Trench rescue operations present a significant danger to fire department personnel. The safe and effective management of these operations requires special considerations and resources.

It is the policy of the Galena Fire Department that personnel shall not enter into an unsafe trench or excavation.

Initial arriving GFD companies shall function at the AWARENESS level.

Examples of activities and functions appropriate at this level include:

- Recognition of a trench collapse incident.
- Identifying resource needs.
- Initiating response of operations and/or technician level personnel.
- Establishing scene control.

Response

The standard response to any reported trench collapse incident is referenced in SOG 002 and upon confirmation of a trench collapse with a person(s) trapped, or believed to be trapped, the alarm should be upgraded per GFD and MABAS protocol.

Arrival Assessment

- The first-in company should position the apparatus a minimum of 50' from the location of the trench collapse. Additional arriving units should initially stage a minimum of 150' from the location.
- The first arriving officer should establish command and complete an initial size-up that includes the securing of any witness(es).



TRENCH COLLAPSE - INITIAL COMPANY ACTIONS

- Location, number, condition of victims and how long buried.
- Depth of trench.
- Utility and other scene hazards.
- Determination of rescue or recovery mode.
- Determination of additional resources needed.

Scene Safety

The Incident Commander shall:

- Establish hot, warm, and cold zones (utilize barrier tape and natural boundaries).
- Hot Zone – 0-100' from trench.
- Warm Zone – 100-500' from trench.
- Cold Zone – 500' and further from trench.
- Secure and/or shut down machinery and traffic within 300' of trench.
- Implement lock out/tag out.
- Place ground pads within four (4) feet of trench.

Initial Operations

- If victim is partially buried, lower lifeline and instruct victim to tie around themselves (not for lifting).
- If indicated, lower ladder into trench - for victim self-rescue only.
- If victim is buried, mark last known location using dry chemical extinguisher.
- Establish atmospheric monitoring.
- Establish ventilation of trench (if necessary).
- Relocate any soil piles to be a minimum of 2 feet from trench.
- Establish staging area for additional arriving apparatus and personnel.

References:

NFPA 1670, Standard on Operations and Training for Technical Search and Rescue Incidents, 2009 edition
OSHA: 29 CFR Part 1926, Subpart P



GALENA FIRE DEPARTMENT
Standard Operating Guideline
TRENCH COLLAPSE - INITIAL COMPANY ACTIONS
CHECKLIST

SOG: 049

Page: 3 of 3

STRATEGY: RESCUE RECOVERY - Secure site and await Technician-level personnel

ARRIVAL ASSESSMENT	<input type="checkbox"/> Position apparatus a minimum of 50' from the location of the collapse	<input type="checkbox"/> Locate and secure witnesses
	<input type="checkbox"/> Stage all other apparatus a minimum of 150' from the location of the collapse	<input type="checkbox"/> Complete an initial size-up <ul style="list-style-type: none"> <input type="checkbox"/> Victim location, number, condition <input type="checkbox"/> Depth of trench <input type="checkbox"/> Utility and other hazards <input type="checkbox"/> RESCUE or RECOVERY mode <input type="checkbox"/> Request additional resources

SCENE SAFETY	<input type="checkbox"/> Confirm and/or implement Lock-out/Tag-out	<input type="checkbox"/> Ensure that unauthorized or untrained personnel do not enter the trench space
	<input type="checkbox"/> Establish CONTROL ZONES	<input type="checkbox"/> Secure/shut down machinery within 300' of the trench
	<input type="checkbox"/> HOT 0-100' <input type="checkbox"/> WARM 100-150' <input type="checkbox"/> COLD 150-300'	<input type="checkbox"/> Place ground pads within 4' of trench

INITIAL OPERATIONS	<input type="checkbox"/> If victim is partially buried, lower a lifeline and instruct victim to secure it to his/her body. This is a safety line that is not intended for victim lifting	<input type="checkbox"/> Mark victims last location with a dry-chemical extinguisher
	<input type="checkbox"/> Obtain atmospheric monitoring results if taken by contractor	<input type="checkbox"/> Initiate atmospheric monitoring
	<input type="checkbox"/> If indicated, lower a ladder into the trench for SELF-RESCUE only	<input type="checkbox"/> Establish LEVEL 2 Staging
	<input type="checkbox"/> Move spoil pile a minimum 2' from trench	<input type="checkbox"/> Establish ventilation of the trench

DO NOT ALLOW UNTRAINED PERSONNEL WITHIN THE HOT ZONE
REQUEST TECHNICAL-LEVEL PERSONNEL AND PREPARE TO SUPPORT A RESCUE MISSION