



HR/LF

FFCC – Policy/SOG Program

Operations

Special Operations –
Trench Collapse – Initial
Company Actions

SOG # 10-09

Life Safety Initiative: 3

Issued: 09/30/10

Subject: Trench Collapse – Initial Company Actions

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

Scope: This policy applies to all members of the Fire Department

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

Philosophy

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

Therefore it is the policy of the _____ Fire Department that personnel SHALL NOT enter into an unsafe trench or excavation.

Initial arriving companies of the _____ Fire Department 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 shall be _____.

Upon the confirmation of a trench collapse with a person(s) trapped, or believed to be trapped, the alarm should be upgraded to a _____.

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 including:
 - Secure any witnesses
 - 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

- Establish hot, warm, and cold zones (utilize barrier tape and natural boundaries)
 - Hot – 0-100' from trench
 - Warm – 100-500' from trench
 - Cold – 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 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

By the order of: _____

Fire Chief

Date: 09/30/10

References:

- NFPA 1670, *Standard on Operations and Training for Technical Search and Rescue Incidents*, 2009 edition
- OSHA: 29 CFR Part 1926, Subpart P (click title to access reference)

Resources (*click title to access resource*):

- CDC Trenching and excavation website

Firefighter Close Calls.Com—Weekly Fire Drills (*available on website*)

- TRA scenarios (5/27/10)
- Technical Rescue Support (3/12/07)

Disclaimer

We encourage our readers to use the policy and SOG templates as just one resource in developing your own local procedures. It is important that you research your own local requirements, needs, and practices.