

HAMILTON FIRE DEPARTMENT STANDARD OPERATING GUIDE

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| PROCEDURE: | OPERATIONS | POLICY |
| TITLE: | Technical Rescue from Confined Space | O-010 |

PURPOSE: The purpose of this guide is to establish general work procedures for executing a rescue from a confined space.

SCOPE: The Hamilton Fire Department is trained and equipped to operate in the capacity of a back-up response team. The primary purpose is to respond onto the Colgate University campus to provide rescue services for trained entrants who are operating under the Colgate University Confined Space Entry Permit System.

PRE-RESCUE PHASE: All rescue personnel will be trained in the following aspects of Confined Space Rescue.

1. General equipment use and application to include rescue knots, anchoring, belaying, raising and lowering systems, and simple mechanical advantage
2. Regulations and Standards
3. Victim Packaging
4. Pre-plan confined space areas
5. Actual rescue scenarios

Personnel will train a minimum of one time per year, however it is recommended that personnel practice these skills more frequently as needed to maintain competency.

RESPONSE: All personnel shall be equipped with appropriate PPE. Minimum equipment shall include:

1. Helmet
2. Eye protection
3. Hearing protection (as needed)
4. Class III Rescue Harness
5. Work pants (knee pads recommended)
6. Steel toe work boots with hard rubber soles

The response should include Heavy Rescue 195 and Truck 197. Apparatus shall be placed downwind from the incident. Personnel should be carefully chosen to include those with training and experience in confined space entry. A minimum of 4 trained rescuers is required.

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| APPROVED BY: | Ross Hoham | EFFECTIVE DATE: | 07/23/03 |
| TITLE: | Fire Chief | LAST REVISION: | 2/25/08 |

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PRE-ENTRY OPERATIONS: The first arriving officer shall establish incident command and ensure the scene size-up to including the following:

1. Scene security –establish a perimeter
2. Interview confined space entry attendant to determine nature of emergency and number of victims needing rescue.
3. Consider additional resources including county fire coordinator
4. Work with attendant and entry supervisor to evaluate for atmospheric changes.
5. Consider risk assessment. Determine if this as a rescue or recovery operation. Continue with rescue if you cannot reasonably determine that the victim is not alive.
6. Ensure that the space is reasonably safe to enter and free from impending collapse or severe changes.
7. If rescue operation is taking place outside of the Colgate University Campus, Colgate University personnel shall be requested to respond to the rescue location with equipment to ensure air monitoring and support services that would be similar to the services they would provide during an on-campus rescue.

Technical rescue equipment shall be placed onto a tarp to assist in locating equipment and protect equipment and the entry point from damage.

ENTRY OPERATIONS: The incident command system shall be structured so that there is one person to oversee the entry space and maintain communication with the rescuers. There should be someone to act as a liaison to the Colgate Entry Team. There should be additional sectors established to include rigging, hauling, and EMS as needed.

All personnel will work in groups of two. The structural firefighting accountability system will be used. There will be four firefighters equipped to enter the space. All four will be briefed on the situation and objectives for the rescue. Two firefighters will enter the space and two will remain outside the space in a ready state to assist the first two entrants. The entrants will maintain communication with the personnel outside of the space either by direct contact or portable radio.

All rescue personnel who enter the space will be tracked by the Colgate entry attendant. Air monitoring will continue during the rescue in the manor which is required by the Colgate Confined Space Entry Permit. SCBA shall be worn if:

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1. O2 levels are below 19.5% or above 23.5%
2. If any level of Carbon Monoxide or Hydrogen Sulfide is detected
3. Any atmospheric concerns are noted during the scene size-up

If any atmospheric abnormalities are detected, ventilation shall be conducted by the entry team during the rescue. If the detected LEL (lower explosive limit) reaches 10% at any time, the rescue will be terminated until the space can be effectively ventilated.

All rescue techniques will follow acceptable industry standards. Any “live” vertical operation will have a belay system included. Emergency Medical Care will be limited to BLS interventions with the emphasis on rapidly and safely removing the victim to a safe area for further EMS care.

When the rescue personnel reach the victim, they shall assess for injury and report to the rescue supervisor any pertinent information. This information shall be passed along to EMS who can then plan for treatment / transport considerations. They will then formulate a plan to remove the victim and report their intentions back to the supervisor outside the space. Additional resources will be requested and implemented as necessary.

POST-ENTRY PHASE: After all victims have been safely removed, all rescue personnel shall be accounted for. Gear shall be inspected and placed back into service. The entry point shall be turned over to Colgate staff or otherwise secured to prevent further entry.

Debriefing and critique sessions should be considered following the operation.

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