



**DALHOUSIE
UNIVERSITY**

**Department of
Facilities Management
Occupational Health and Safety**

Confined Space Entry

Emergency Evacuation and Rescue Plan

Building _____ **Confined Space ID #** _____

Date: _____ **Work Order No.** _____

Emergency Evacuation and Rescue Procedures

The following procedures while intended to ensure the safety of Entrants and Attendants involved in a confined space entry do not address site specific situations. Additional emergency and rescue procedures must be developed for each confined space, based on the site hazard assessment, and added to the last section of this rescue plan.

Rescue Team Procedures Prior to Work Beginning

These procedures apply to non-entry and entry rescues:

- Ensure that the rescue team is familiar with all hazards identified in the Pre-Entry Hazard Assessment.
- Ensure that the confined space entry permit has been completed and that rescuers are familiar the recorded information.
- Ensure that all site specific emergency or rescue procedures have been added have been recorded on this document.
- Ensure that all required rescue equipment is at the work site, has been inspected and is safe for use and that it is set up properly.
- Review evacuation alarm with entrants/ attendants and check mode of communications.
- Review the evacuation and rescue procedures with Entrants, Attendants and any rescuers on stand-by.

Emergency Evacuation (Self Rescue) Procedures

These procedures apply when the entrants or attendants determine that an unsafe situation exists or is developing, the entrants are physically and mentally capable of exiting the confined space on their own and there are no obstructions to impede their efforts.

- Entrants must evacuate the confined space if the concentration of oxygen in the confined space goes below 19.5% or above 22.5%.
- Entrants must evacuate the confined space if the air sampling equipment alarm indicates that hazardous substance levels exceed safe levels.
- Entrants must immediately evacuate the confined space if they begin to feel or notice adverse health effects.
- The Attendant or Entrants should initiate evacuation if any ventilation equipment being used malfunctions.
- Entrants must evacuate the confined space if the Attendant must leave their post and a competent replacement is not available.
- The confined space must be evacuated if any safety equipment malfunctions, a previously unidentified hazard is noted or a potentially dangerous situation develops.
- There is a loss of communication with employees in the confined space.
- The space must be evacuated if the Attendant observes any Entrant acting in an abnormal fashion.
- Entrants must immediately evacuate a confined space when told to do so by the Attendant.

Vertical or Horizontal Non-Entry Rescue Procedures

These procedures define a process where the rescuer **does not enter** the confined space. A retrieval system is used to extract the entrant because the entrant is unable to self rescue. The extraction route must be; large enough to accommodate the employee being rescued, is a straight run horizontally and vertically, and, there are no obstructions that would impede the rescue for these procedures to work. The rescue system must be set up and the entrant connected to the safety line before entering the confined space.

- Communicate with the injured Entrant or another Entrant in the space and identify the cause and nature of the injury.
- Extract the injured Entrant from the space using the mechanical lifting equipment.
- If possible maintain communications with the Entrant while they are being extracted.
- On all campuses, including Truro, Call Dalhousie Security at **4109**, explain **what** is happening and **where** and ask them to call 911. (Security must provide 911 with a location where they will meet the ambulance in order to take them to the confined space.)
- Once the injured Entrant is outside of the confined space provide first aid as required, ensure that they are comfortable and stay with them until the ambulance arrives.
- Do not allow anyone to re-enter the confined space until it has been confirmed that it is safe to do so.

List any additional site specific non-entry rescue procedures below:

(Use additional sheets of paper if necessary.)

-
-
-
-

Vertical or Horizontal Entry Rescue Procedures

These procedures must be followed when it is necessary for rescuers to enter the confined space to extract the entrant. This type of rescue is necessary when the entrant cannot self rescue and one or more of the following conditions exist; there are turns in the exit route, the floor is uneven, there are obstructions such as pipes, beams, water, etc., the entrant is not connected to a life line, the entrant has been injured and must be stabilized before being moved.

- On all campuses, including Truro, Call Dalhousie Security at **4109**, explain **what** is happening and **where** and ask them to call 911. (Security must provide 911 with a location where they will meet the ambulance in order to take them to the confined space.)
- Attempt to communicate with the Entrants in the confined space to establish what injuries exist and what conditions exist that may impede the rescue efforts.
- Check the atmospheric conditions to determine if respirators or supplied oxygen are required.
- Confirm that all communication equipment is working.
- Ensure that an Attendant is in place outside the entry point to assist the rescue team.
- Rescue team enters the space and provides any first aid that may be required to stabilize injured Entrant(s).
- Prepare the Entrant(s) for extraction. This may require the use of stretchers, etc.
- Have the Attendant operate the winching system to help remove the Entrant(s) from the confined space.
- Rescuers must ensure the safety of the injured Entrant(s) during the extraction procedure.
- Once outside the confined, provide any additional first aid required to stabilize the Entrant(s) until an ambulance arrives.
- Secure area and ensure that no one enters the confined space until it has been re-assessed and deemed safe to enter.

List any additional site specific non-entry rescue procedures below:

(Use additional sheets of paper if necessary.)

-
-
-
-

Entry Rescue in an Area with an Atmosphere Immediately Dangerous to Life or Health (IDLH)

Facilities Management does not maintain the properly trained personnel or the required self contained breathing apparatus or Combination Type C breathing equipment for entrants or rescuers to wear in a confined space with an IDLH or otherwise hazardous atmosphere.

Facilities Management **shall not** perform work that requires entry into a confined space with an IDLH atmosphere. Any work involving an IDLH atmosphere must be performed by a contractor that is fully qualified in the type of work to be performed as well as working in IDLH atmospheres.

Contractors hired to perform confined space work involving an IDLH atmosphere must provide proof of competency in the work to be performed, working in IDLH atmospheres and the ability to execute rescue procedures in confined space with an IDLH atmosphere.

Under no circumstances is any employee to enter a confined space for the purpose of executing a rescue unless they have been trained and certified to perform confined space rescues and are wearing the required personal protective equipment.

| | | |
|------------|----------------------------|----------------|
| Version: 1 | Effective Date: March 2015 | Revision Date: |
|------------|----------------------------|----------------|