

FIRE FIGHTERS GUIDANCE NOTE # 6-5

ISSUE: CONFINED SPACE RESCUE

Confined space rescues require special preparation to ensure that firefighters take the proper precautions to safely carry out their duties.

Effective July 1, 2011, the regulatory requirements with respect to confined spaces under the Occupational Health and Safety Act (OHSA) were consolidated into one regulation, O. Reg. 632/05 Confined Spaces. The provisions with respect to confined spaces that previously applied in the four sector-specific regulations (i.e. Industrial Establishments, Construction Projects, Mines and Mining Plants, and Health Care and Residential Facilities) were revoked.

The confined spaces provisions serve to ensure that workers entering, working in or working near confined spaces are protected.

Sections 4 – 7 and 9 – 21 of O. Reg. 632/05 do not apply to emergency work performed by a firefighter as defined in subsection 1 (1) of the Fire Protection and Prevention Act (FPPA), 1997, or a person who holds a certificate (gas technician) under the Technical Standards and Safety Act, 2000 who is working under the direction of a fire department as defined in the FPPA. “Emergency work” means work performed in connection with an unforeseen event that involves an imminent danger to the life, health, or safety of any person.

O. Reg. 632/05 states that a firefighter who performs emergency work shall be adequately protected by personal protective equipment, clothing and devices provided by the worker’s employer, training under Section 8 provided by that employer, and written procedures and other measures developed by that employer.

Section 8 of O. Reg. 632/05 outlines the hazard recognition and other general training requirements that apply to firefighters. The confined spaces provisions indicate that every worker who enters a confined space or who performs related work shall be given adequate training for safe work practices for working in confined spaces and for performing related work, including training in the recognition of hazards associated with confined spaces.

“Confined space” means a fully or partially enclosed space,

- that is not both designed and constructed for continuous human occupancy, and
- in which atmospheric hazards may occur because of its construction, location or contents or because of work that is done in it.

To be defined as a confined space, the above conditions must apply. As such, simulators used in training by fire departments may not be considered confined spaces. The same fire department

policies and procedures that would apply to an emergency incident should be applied during training evolutions.

Fire departments should be aware that 911 emergency response capabilities for confined space rescue cannot be used by workplaces as their on-site rescue response protocol. Emergency services do not replace the requirement for on-site rescue procedures.

Where fire departments make contractual arrangements to provide confined space “on-site rescue” to private industry, fire departments are to ensure that firefighters are appropriately trained (i.e. plan-specific training) to perform the confined space rescue and are capable of immediately implementing the relevant plan and the written on-site rescue procedures that apply to the confined space. (Note: the hazard recognition and other general training requirements are not applicable here.)

Hazards in confined spaces may include toxic substances, lack of oxygen, moving equipment (e.g. augers, agitators), electricity, corrosive or toxic liquids, "quick-sand" type material such as moving grain, water, and falling objects.

The following are minimum precautions:

- ventilate flammable atmospheres below the LEL before entering
- pre-planning and training for confined space rescues
- inspect and calibrate gas detection devices
- ensure that established lock-out procedures for equipment and other hazards have been implemented and followed
- test the atmosphere before entry and continuously while crews are inside (Note: many toxic gases are odourless)
- where practical, ventilate the confined space before entry and continuously while crews are inside
- where a flammable or combustible material presents a fire hazard, station a fire crew in full protective gear with a backup hose-line at the entrance to the confined space
- rescuers who enter the confined space should:
 - a. wear the appropriate protective clothing and equipment for the hazards involved
 - b. be able to communicate with the back-up rescue team using the appropriate communications devices
 - c. wear a full-body harness to which is securely attached a rope, the free end of which is fastened to a stationary object outside the confined space (Note: a mechanical retrieval device may be more effective than manual retrieval)
 - d. be supported by an appropriately equipped back-up rescue team located at the entrance to the confined space
 - e. establish traffic control to prevent injury to rescuers, and
 - f. use appropriate rescue harnesses (i.e. Class III rescue harnesses).

Reference:

O. Reg. 632/05 Confined Spaces

GN # 1-5 Life Safety Rope and Equipment

GN # 6-4 Rope Rescue

NFPA 1670 Standard on Operations and Training for Technical Rescue Incidents

NFPA 1006 Standard for Technical Rescuer Professional Qualifications

NFPA 1983 Standard on Life Safety Rope and Equipment for Emergency Services

ANSI Z359.1 Safety Requirements for Personal Fall Arrest Systems, Subsystems, and Components

CSA Z259.10 Full Body Harnesses