

# LEVEL 1: RESTRICTED SPACE ENTRY PROCEDURES

**CONTRACTORS:** Contractors working in confined spaces on divisional property must be informed of the dangers, be trained in confined space entry and comply with the requirements of the entry system. It is the responsibility of the supervisor who contacted the contractor to notify, verify training, brief, and provide a copy of this safe work procedure to any contractor working in a crawlspace in the division. It is the contractor's responsibility to ensure all their staff are trained in CSE, inform all workers under his control and any subcontractors of specific crawlspace hazards. Briefings must be documented and records maintained.

**Note:** Contractors or trades staff will require a separate pre-entry hazard evaluation form to be completed and submitted to the Pembina Trails supervisor/safety officer prior to entry. All restricted spaces have the potential to become a confined space depending upon the work activity being carried out in the space.

**IDENTIFIED HAZARDS:** Level 1 restricted spaces pose the lowest risk. You are able to walk (rather than crawl), egress is not restricted and the space typically has a full door. The space has adequate ventilation, there are no known atmospheric contaminants and the work activity will not create physical hazards or change the atmosphere within the space. Other hazards present in the space may include: low light, dust, high/low temperature, some dampness, or low ceiling height. The space may contain noise, asbestos, radon gas, animal traps, animal feces, standing water, steam etc. Atmospheric monitoring is still required.

## **PERSONAL PROTECTIVE EQUIPMENT REQUIRED:**

Bump cap, safety glasses, work gloves, coveralls (if required), and a N95 respirator (if required). Ensure you have a flashlight, or another type of portable illumination, with you at all times.

## **EMPLOY THE BUDDY SYSTEM:**

You must contact the school secretary or designate and advise that you are entering the crawlspace and how long you will be. Provide an estimated time that you plan to exit the crawlspace. The person you inform must be made to understand that if you do not return at the required time someone should be sent to find you.

## **ENTRY PROCEDURE:**

1. Notify your buddy that you will be entering and working in the restricted access space and how long you will be.
2. Don all personal protective equipment: protective footwear, bump cap, full body harness, gloves and a N95 respirator, if required. Turn on the gas detector and conduct the fresh air calibration. Attach the detector to your person but away from your breathing zone.
3. Take a flashlight or other type of portable illumination.
4. Turn on the multi gas detector and complete the fresh air calibration. Secure the gas detector in a location on your person but away from your breathing zone. All spaces must have atmospheric monitoring every time you enter.
5. Print your name and the time on the "Restricted Space Entry Permit" that is posted on the crawlspace entry door.
6. Open the door and turn on the lights. Perform atmospheric monitoring - test the air in the space at the entrance. If the gas detector alarms or shows levels of atmospheric hazards, do not enter the space. Contact your supervisor. Acceptable levels for entry:
  - Oxygen – 19.5% - 23%
  - CO – less than 25ppm (low alarm), short term exposure (15min) – 100 ppm; TWA (over 8hrs) – 25ppm
  - H<sub>2</sub>S – less than 1.0ppm (low alarm), short term exposure (15min) – 5ppm, TWA (over 8hrs) – 10ppm
  - Flammables / Explosives – Lower explosive level 10%, upper explosive level 20%
7. Ensure the crawlspace hatch cannot be closed while you are in the crawlspace. Place a lockout on the hasp so that it cannot be locked shut. Do not enter crawlspaces that have standing (black) water as the water may release hydrogen sulfide gas when disturbed. If standing water is present contact the maintenance shop. Someone will be assigned to pump out the water.
8. If the air sampling in step 6 is OK, enter the space to begin work. Complete your work and remove all debris and garbage. No combustible materials are allowed to be left / stored in a crawl space (fire code requirement).
9. **If the alarm sounds at any time the worker MUST leave the space immediately and call their supervisor. DO NOT turn off the gas monitor once you have exited the space. Your supervisor will need to review the exposure information logged in the monitor. If it is turned off all information is lost.**
10. Exit the crawlspace, sign out, close and secure the door. Remove personal protective equipment. Clean and store it appropriately. Check in with person you informed in step 1 and let them know all work has been completed in the crawlspace.

## **RESCUE:**

1. Self-Rescue – Entrant is physically and mentally capable of exiting the space without assistance. To be used if the gas detector alarm/ventilation alarm activates or signs and symptoms of exposure to a hazard are recognized and an evacuation is required. Notification to the supervisor and Safety Officer are required
2. If self-rescue is not possible, call 911. Notify the workers supervisor and the divisional Safety Officer. DO NOT enter the space to attempt rescue. Secure the access hatch / door to prevent accidental closing.

**The level of risk may increase due to the task being performed in the crawlspace. E.g. "Level 1" restricted spaces may become a confined space due to fugitive emissions from welding or the displacement of oxygen. A separate entry permit will be required. These spaces may be entered only by qualified and authorized personnel. Please see the divisional Safety Officer for further information.**