



CITY OF PENTICTON OPERATIONAL SAFETY PROCEDURE

AWWTP Moderate Hazard Confined Space Entry Procedure

Works/ Safety Procedures/Confined Spaces

PURPOSE: To safely allow workers to enter a Moderate Hazard Confined Space

PERSONAL **Eye Protection:** Safety Glasses or Goggles may be required

PROTECTIVE **Head Protection:** Hard Hat

EQUIPMENT: **Foot Protection:** Steel toed work boots

Hand Protection: Work Gloves

Other: Coveralls

- PROCEDURES:**
1. Ensure the Hazard Identification/Risk Assessment (HIRA) is completed in order for the work to be performed in the confined space.
 2. Attach lock out procedure. If no procedure is written, see Supervisor. Lock out of adjacent piping without a double block and bleeding or blinding, requires an "Alternate Measure of Control" to be submitted to and approved by Work Safe prior to entering a confined Space
 3. Conduct a tailboard meeting, which includes confirmation that a copy of this procedure is on site, and will be followed. Document the Tailboard meeting
 4. When a confined space requires entry by a worker, each point of access which is not secured against entry must be identified by a sign or other effective means which indicates the hazard and prohibits entry by unauthorized workers.
 5. Ensure high point is used for fall protection and available for rescue. When entering and exiting into a confined space on ladders workers must be hooked up to fall protection.
 6. Fill out the "Confined Space Entry Permit" that is found in the "Confined Space Entry Forms" binder. Have a supervisor sign off on the permit before entering space.
 7. (a) A worker or workers will be assigned as the standby person(s), (b) a standby person must be stationed at or near the entrance to the space, (c) the standby person must visually observe or otherwise check the well-being of the worker(s) inside the space, as often as may be required by the nature of the work to be performed, but at least every 20 minutes, (d) there must be a continuous means of summoning the standby person from inside the space, and (e) the standby person must have a means to immediately summon rescue personnel.
 8. Check Calibration date of gas detectors (must be calibrated within the last 30 days), if calibration is out of date, calibrate gas detectors. Bump test both gas detectors before use. In a well ventilated area ensure gas detectors indicate "Clean Respirable Air" See definition attached.
 9. Testing the atmosphere The pre-entry testing must 1.)be completed not more than

20 minutes before a worker enters a confined space. 2.)When all workers have vacated the confined space for more than 20 minutes, pre-entry testing, must be repeated. 3.)While a worker is inside a confined space with a moderate hazard atmosphere, additional testing must be conducted as necessary to ensure the worker's continuing safety. 4.)Continuous monitoring of the atmosphere must be done. 5.)If a worker enters a confined space with a moderate hazard atmosphere, the employer must continuously monitor the atmosphere if a flammable or explosive atmosphere in excess of 20% of the lower explosive limit could develop. 6.)The test record must show the date and time of the test, the initials of the tester and the levels or condition found. 7.)Test results, other than continuous monitoring results, must be posted without delay at all points of entry to the confined space.

10. (1) A ventilation system for the control of airborne contaminants in a confined space must be designed, installed and maintained in accordance with established engineering principles (2) Ventilation equipment must be located and arranged so as to adequately ventilate every occupied area inside the confined space. (3) If a contaminant is produced in a confined space, it must be controlled at the source by a local exhaust ventilation system if practicable, by general (dilution) ventilation, or by a combination of both. (4) If practicable, a mechanical ventilation system for a confined space must be sufficient to maintain concentrations of airborne contaminants below the applicable exposure limits.

11. Before entering the confined space, fax fire dispatch the confined space notification sheet.

12. Notify the Fire Dispatch when you are finished and out of the confined space.

13. Emergency/Rescue Procedure The procedures outlined above ensure that the atmosphere in the confined space remains a Moderate hazard and, therefore, will not present a risk to the worker(s) in the space. Extrication of a worker from the space may, however, be required if a medical condition prevents the worker from exiting the space on his/her own. To ensure that such an extrication can be performed effectively and without undue delay in the provision of needed medical assistance, the following requirements must be met: • Emergency equipment (tripod or retrieval device and line) will be set up appropriately during all confined space space entry/work; and • The worker(s) in the space will wear a retrieval harness If a worker (conscious or unconscious) inside a confined space requires extrication, the standby worker will use the tripod or retrieval device to effect extrication of the worker(s). In addition the standby worker is responsible for ensuring that appropriate emergency and medical aid has been summoned (call 911). If, for any reason, the standby worker is unable to successfully perform the extrication, the fire department should be called (911). He/she must inform the fire department personnel: • That medical assistance has been summoned; • Whether the gas detector is functioning properly and if it shows Clean Respirable Air inside the space (top, middle and bottom); • That continuous ventilation is being provided

REFERENCES: Lock out procedures, HIRA and Confined space program. Worksafe BC Part 9 Confined Spaces

TOOLS:

Ventilator
Gas Detectors (2)
Cell Phone and 2 way radios
Hi point
2 Safety Winches
2 Fall protection Body Harnesses

MATERIALS:

Definitions:

"moderate hazard atmosphere" means an atmosphere that is not clean respirable air but is not likely to impair the ability of the worker to escape unaided from a confined space, in the event of a failure of the ventilation system or respirator.

"clean respirable air" when used to describe the atmosphere inside a confined space, means an atmosphere which is equivalent to clean, outdoor air and which contains

- (a) about 20.9% oxygen by volume,
- (b) no measurable flammable gas or vapour as determined using a combustible gas measuring instrument, and
- (c) no air contaminant in concentrations exceeding either 10% of its applicable exposure limit in Part 5 (Chemical Agents and Biological Agents) or an acceptable ambient air quality standard established by an authority having jurisdiction over environmental air standards, whichever is greater;

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