

Village Of Cache Creek

Policy No. H-2

Confined Space Entry

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Policy Statement:

The Village of Cache Creek requires that all staff follow all safety protocols when performing work in confined spaces.

Purpose:

The purpose of this policy is to ensure that all Village employees abide by the WCB Regulations and Village of Cache Creek Procedures when performing work in confined spaces.

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VILLAGE OF CACHE CREEK

CONFINED SPACE ENTRY PROCEDURE

PREAMBLE

This confined space entry procedure is intended as a *minimum* starting point. It does not diminish the need for clear thinking nor lessen the requirement of an ongoing evaluation of conditions to identify and deal with hazards that may become or contribute to accidents. Visualization of the intended details of the work to be performed may give warning of potential hazards: will the work itself produce hazardous conditions? It is easier to deal with problems if the possibility of their appearance is expected.

All of the confined spaces have been placed into 3 categories. Each type of category contains spaces of similar hazard and therefore similar entry procedure. Once the entry procedure has been established for the confined space of concern, the procedure governing its entry should be read in its entirety. This will aid in forming an overview that will help entry preparations.

NO ENTRY IS ALLOWED IN THE FOLLOWING AREAS:

Jackson Park intake gallery	Campbell Hill water reservoir
Collins Road reservoir	Stage Road reservoir

CLASS I

"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.

Class I Confined Space Inventory:

- I-A Park sewer lift wet well
- I-B Sewer plant wet well
- I-C Quartz Road wet well
- I-D Sewer line manholes
- I-E Swimming pool surge tank
- I-F Valleyview Pressure Reducing Station

CLASS II

"Low hazard atmosphere" means an atmosphere which is shown by pre-entry testing or otherwise known to contain clean respirable air immediately prior to entry to a confined space and which is not likely to change during the work activity, as determined by a qualified person after consideration of the design, construction and use of the confined space, the work activities to be performed and all engineering controls required by this Regulation;

Class II Confined Space Inventory:

- II-A Sewer plant cement tanks
- II-B Sewer plant pump station
- II-C Quartz Road pump station
- II-D Pressure reducer valve chamber
- II-E Ditches with drop in shoring
- II-F Decommissioned Reservoir

SITE SPECIFIC PROCEDURES

CLASS I

Sewer manholes, Sewer plant wet well, Sewer Plant Muffin Monster, Quartz Road lift station wet well, Cache Creek Park wet well, Swimming Pool surge tank

Step 1 - Open the hatch or manhole cover to allow the confined space to ventilate. Sewer line manholes to this point in time (October 2006) have appeared to be safe. An unsafe atmosphere has not been found nor has there ever been a documented problem with engulfment. The possibility does however exist that the open flow of sewer in the bottom of the manholes can carry compounds of sufficient volatility to rapidly degrade the confined space atmosphere. The possibility also exists that the manhole discharge or the downstream line may plug causing an engulfment hazard.

Step 2 - Before entering the confined space, a standby person with equipment (harness, lifeline and tripod with winch) capable of effecting a rescue shall be at the site. This standby person shall remain in constant contact with person/s who will enter the confined space. Persons entering the confined space shall have the harness with spreader bar attached to the winch rope. Persons in the confined space must also ensure that an operating gas detector stays with them as long as anyone remains in the confined space. The standby person will not enter the confined space without first summoning and assigning a second person the duties of the standby person.

WCB Regulations:

*9.42 (1) When entering a confined space which contains a high hazard atmosphere, a risk of entrapment or **engulfment** or with any other recognized serious health or safety hazard, the worker must wear a harness of a type which will keep the worker in a position to permit rescue.*

(2) A lifeline must be attached to the harness and be tended at all times by a standby person stationed outside the entrance to the space.

(3) The standby person must be equipped with suitable lifting equipment if necessary to permit rescue.

(4) The use of a lifeline is not required if the risk assessment identifies obstructions or other conditions that make its use impractical or unsafe.

9.44 If one or more workers enter a confined space, provision must be made to prevent the entanglement of lifelines and other equipment.

(continued)

9.45 If rescue cannot be effected by the standby person(s) using harnesses, lifelines and lifting equipment, then one or more additional workers must be stationed at the entrance to the confined space and these workers must be equipped and capable of entering the space and effecting rescue.

Step 3 - A maximum 20 minutes before entering the confined space, the confined space atmosphere must be tested (O₂ deficiency 18% to 23.5%, H₂S < 10 ppm, and Flammables < 20% LEL) and the confined space entry form must be filled out. If the atmosphere is shown to be deficient then, using the portable blower, the air in the confined space must be purged and retested to ensure a stable safe atmosphere exists. Constant ventilation and monitoring of the confined space will then be continued until the work has been completed and all personnel are out of the space.

WCB Regulations:

9.25 (3) When all workers have vacated the confined space for more than 20 minutes, pre-entry testing, as required by section 9.25 (1), must be repeated.

9.27 (2) If a confined space is known, or shown by pre-entry testing to contain other than clean respirable air, the hazard must be controlled by cleaning, purging or venting the space and the atmosphere must be retested before a worker enters the space.

SITE SPECIFIC PROCEDURES

CLASS II

Sewer Plant pump station, Sewer Plant tanks, Pressure Reducing Station, Quartz Road pump station, Ditches when drop in shoring is used.**

Step 1 - Open the hatch or manhole cover to allow the confined space to ventilate and to allow general observation of sights, sounds and smells while preparing for the confined space entry.

Step 2 - Although testing may not be a regulation requirement in certain instances of this class of confined space, THIS PROCEDURE REQUIRES THAT for a maximum 20 minutes before entering the confined space, the confined space atmosphere must be tested (O₂ deficiency 18% to 23.5%, H₂S < 10 ppm and Flammables < 20% LEL) and the confined space entry form must be filled out. Persons in the confined space must also ensure that an operating gas detector stays with them as long as anyone remains in the confined space. If the atmosphere is shown to be deficient then using the portable blower the air in the confined space should be purged and retested to ensure a stable safe atmosphere exists. *(At this point the confined space would be elevated to a Class I and Standby and Lifeline requirements of that Class would apply.)* Constant ventilation and monitoring of the confined space must be continued until the work has been completed and all personnel are out of the space.

Step 3 - The standby person must be continuously available (telephone, radio, physical proximity) to the person/s in the confined space. There must be contact between the worker/s in the confined space and the standby person at intervals not to exceed 20 minutes until personnel are out of the space. The standby person must have immediate means to summon rescue personnel. The standby person will not enter the confined space without first summoning and assigning a second person the duties of the standby person.

WCB Regulations:

9.34 If a worker enters a confined space which contains a low hazard atmosphere

- (a) another worker must be assigned as a standby person,
- (b) there must be a continuous means of summoning the standby person,

(continued)

(c) the standby person must check on the well-being of workers inside the space at least every 20 minutes, and

(d) the standby person must have a means to immediately summon rescue personnel.

****** When drop in shoring is being used in a ditch and the shoring is continuous on four sides then the configuration is to be considered a class II confined space. The major consideration in this case is the ability to provide for rescue. Before personnel enter the confined space, means of rescue must be in place. If the shoring is open to the ditch on one end, then the space is not considered a confined space.

EXPLANATION OF CONFINED SPACE ENTRY FORM

- 1E. DATE: Record month, day and year.
- 2E. CONFINED SPACE NUMBER: Record the number of the confined space from the attached confined space inventory (pages 2 and 3).
- 3E. O₂ READ: Record the value obtained from checking the confined space atmosphere with a permissible oxygen indicator.
- 4E. FLAM READ: Record the value obtained from checking the confined space atmosphere with a meter capable of measuring concentrations of flammable substances.
- 5E. H₂S READ: Record the value obtained from checking the confined space atmosphere using an instrument capable of detecting H₂S.
- 6E. REASON(S) FOR ENTRY: List reasons for entry and generalized description of the work done.
- 7E. NAMES OF PEOPLE IN THE CONFINED SPACE: List the names of all people who will be in the confined space.
- 8E. TIME IN: Actual time the first worker(s) enter the confined space.
- 9E. EXPECTED TIME OUT: This is the time the person on the surface expects a communication or he will initiate rescue procedures.
- 10E. ACTUAL TIME OUT: Actual time when last worker leaves the confined space.
- 11E. PERSON(S) IN COMMUNICATION WITH: Record the names of the person(s) who were notified of entry into a confined space and also who was notified that the workers were out of the confined space.

EXPLANATION OF MAN CHECK AND RESCUE RECORD

- 1R. DATE: Record month, date, and year, of man check call.
- 2R. WORKERS IN CONFINED SPACE: Record who will be going into the confined space.
- 3R. CONFINED SPACE NUMBER: Record the confined space number received from caller.
- 4R. TIME OF CALL: Time of man check call (Communication e.g. Telephone, radio, etc.)
- 5R. DURATION: Expected duration in confined space.
- 6R. LAST MAN CALL OUT: Time of call signaling last worker out of confined space.
- 7R. WHO ANSWERED CALL: Person receiving original man check request and person responsible for starting a rescue if the need should arise

PROVISIONS FOR RESCUE

TRAINING

At least once each calendar year, the Public Works Staff must run a practice drill to extract someone from a confined space.

RESCUE PROCEDURES

In the event the rescuing party finds a worker unconscious and cannot discover the reason for the worker's condition, then the rescuer must be equipped with S.C.B.A. before entering the confined space to effect rescue.

ON TELEPHONE

		Non-Emergency
AMBULANCE	911	
FIRE HALL	911	457-9967
R.C.M.P.	911	453-2216
HOSPITAL	453-2211	
PUBLIC WORKS SHOP	457-9955	
SEWER PLANT	457-6537	
VILLAGE OFFICE	457-6237	
SWIMMING POOL	457-9135	

ON RADIO

CHANNEL 1	VILLAGE OFFICE PUBLIC WORKS CREW
CHANNEL 2	FIRE HALL