

Confined Space and PPE Evaluation



Facility Name _____ Date _____ Review Conducted By _____

Evaluating Confined Spaces

Confined spaces are always to be considered hazardous until determined to be otherwise. All confined space activity should be conducted in accordance with OSHA Standard 29CFR.134 for General Industry or OSHA 29CFR.1026 Subpart AA for Construction and ANSI Z117.1. CSA standard Z1006 is applicable in Canada. If possible, it may be worthwhile to obtain a sample CS permit from the customer site in lieu of the following questionnaire. You may also use the sample permit which is included on pages 6-9. Please note, any recommended actions or resources with regard to identifying and evaluating confined spaces.

EVALUATION	OK	Action Recommended
Has a qualified person conducted a Confined Space Survey?		
Are workers entering or working around a confined space aware of the appropriate procedures that have been developed for safe entry?		
Have all hazards been identified by a qualified person prior to entry?		
Has a qualified person identified and classified all Permit Required Confined Spaces (PRCS)?		
Has a qualified person identified and classified all Non Permit-Required Confined Spaces (NPCS)?		
Have engineering controls been investigated and implemented?		
Have administrative controls been implemented?		
Have the confined space and all pipelines and conveyances been properly isolated to prevent hazardous gases or liquids from entering the space?		
Have all machinery and processes and potentially hazardous energy sources been locked and tagged in accordance with ANSI/ASSE Z244.1?		
Has all ventilation equipment been approved to ANSI/NFPA 91 and used in accordance with ANSI/AIHA Z9.2?		
Has a qualified person ensured that the ventilation system offers the highest level of protection and that exhaust does not present a hazard in other areas?		
Has an Entry Team supervisor or leader been selected and properly trained?		
Have all potential supervisory personnel that may be responsible for oversight of an entry been selected and properly trained?		
Has a rescue plan been developed?		
Has a communications plan been developed?		
How many confined space entries per year are made on this site?		
Has a plan been developed to coordinate a confined space program with all contractors coming on site?		

Please note any recommended actions or resources with regard to identifying and evaluating confined spaces.



Atmospheric Testing/Detection

Has a qualified person identified all specific atmospheric contamination that can be in a confined space prior to entry? Note: Hazards should be identified in advance to determine the appropriate methods and equipment to be used in various emergency situations. Please note any recommended actions or resources for this site with regard to its Testing/Detection program.

TESTING/DETECTION	OK	Action Recommended
What is the age of all of your instruments?		
Have all gases that are to be monitored been identified by a qualified person and have all possible gases and interference gases been identified?		
Has all of the gas detection equipment been properly calibrated or bump tested prior to use?		
Has it been determined if additional protective gas detection or individually issued detectors are needed by all entering a confined space?		
Have you identified when and where continuous monitoring may be required?		
What is your deepest and longest confined space?		
What is the duration of your longest confined space entry?		
Is all calibration gas within date code and in concentrations specified by the manufacturer?		

DETECTORS/INSTRUMENTATION USED	Number	Brand - Model
5 Gas Detector – Pumped		
4 Gas Detector – Diffusion or Pumped		
Single Gas Detector		
Remote probe		
Calibration system		



Respiratory Protection

All respirators must be NIOSH approved and a respiratory protection program must be implemented in accordance with OSHA 29 CFR 1910.134 or CSA Z94.1 (Canada). All rescue personnel are required to use NIOSH approved SCBA or Type-C combination SAR with escape cylinder. In addition, all entrants must use SCBA or Type-C Combination SAR with escape when entering an IDLH environment.

RESPIRATORY PROTECTION	OK	Action Recommended
Has a written respiratory protection program been prepared by a qualified person in accordance with proper standards?		
Has a hazard assessment been completed and have all respirators and cartridges been selected according to hazards, exposure limits, and assigned protection factors?		
Have all personnel been properly fit-tested annually for the respirators in use?		
Are all persons who will use respirators medically cleared to do so?		
Have all SCBA and combination units been flow-tested at required intervals?		
Are all SCBA/Escape Unit air cylinders within their operating life and hydrostatically tested at proper intervals per DOT requirements?		
Are all air cylinders charged to the proper fill pressure?		
Is there any visible deterioration, heat, flame or other damage to the harness and are the harness straps fully open?		
Are all units stored in a clean, dry, cool space and out of direct sunlight with a proper wall case, bracket or hard case?		
What is your source of Grade D breathing air for SCBA or Air Lines?		
What is your procedure for cleaning, inspection and maintenance of respirators and facepieces?		
Do you have a cartridge change-out schedule? - if applicable.		

RESPIRATORS USED	Number	Brand - Model
Non-NFPA SCBA		
NFPA SCBA		
Combination SAR/Escape Units		
APR Half-Masks		
APR Full-Face		
Escape-Only Devices		

Please note any recommended actions or resources for this site with regard to its Respiratory Protection program.

Entry – Fall Protection and Arrest

FALL PROTECTION	OK	Action Recommended
Is all equipment stored in a clean, dry, cool space?		
Are all harnesses within the shelf life recommended by the manufacturer?		
Has all fall protection equipment been inspected by a competent person in the past 2 months or less (6 months for construction applications)?		
Have all workers received fall protection and rescue training ?		
Have all personnel been properly fitted for a full body harness?		
Does each harness have the appropriate attachment points for fall arrest, personnel-riding, and rescue?		
Is a tripod or davit appropriate for the specific confined space?		
Is portability of davits important?		
Is there enough clearance for the tripod to fit over the entrance without risk of one of the feet coming too close to the confined space opening?		
Is there enough space around the confined space opening to ensure that top-side attendants are safe from falling into the opening?		
Does the confined space have a ladder in place or is a hoist/winch needed?		
What is the maximum line length needed within the confined space to complete the task?		
Are you equipped for entry rescue – if included in your rescue plan?		
Does your equipment allow for non-entry rescue and is all equipment matched to your rescue plan?		
Do you have a method of tracking all equipment?		

FALL PROTECTION EQUIPMENT USED	Number	Brand - Model
Full Body Harness		
Bosun Chair		
Tripod/Davit		
Self Retracting Lanyard with retrieval capabilities		
Hoist/Winch		
Rescue Utility System		
Anchors		

Please note any recommended actions or resources for this site with regard to the Entry/Fall Protection program.

Personal Protective Equipment & Communications

PERSONAL PROTECTIVE EQUIPMENT & COMMUNICATIONS	OK	Action Recommended
What are your primary methods of communication between attendants and entrants? (Line of sight, hand signals, radio, air horn, PASS device)		
Are all protective clothing or suits rated to hazards expected to be encountered?		
Have all personnel been properly trained on helmet inspection?		
Does the entire head- and face-protection ensemble represent a system that was tested together to ensure compliance with ANSI/ISEA Z87.1-2014?		
Are personnel wearing safety eyewear in addition to face-shields to ensure primary eye protection?		
Are all personnel fitted with application-appropriate hearing protection?		
Has a radio or other communication protocol been established?		
Are all radio batteries charged and is there a standard maintenance program?		
Are all radios rated as intrinsically safe?		
Has all radio equipment been tested to work in the confined space?		
Is all lighting equipment adequate and properly maintained?		

PPE USED	Number	Brand - Model
Hard Hats		
Hearing protection, plugs and or muffs		
Radio interface, HCS/Clear command		
Radio Type		
Communications sets		

Please note any recommended actions or resources for this site with regard to PPE and Communications program.

Appendix D to OSHA 29 CFR §1910.146 – Sample Permit

APPENDIX D-1: Confined Space Entry Permit

Date and Time Issued:	<input type="text"/>	Date and Time Expires:	<input type="text"/>
Job site/Space I.D.:	<input type="text"/>	Job Supervisor.:	<input type="text"/>
Equipment to be worked on:	<input type="text"/>	Worked to be performed:	<input type="text"/>

1. Atmospheric Checks:

Time

Oxygen %

Explosive % LEL

Toxic PPM

2. Tester's signature: _____

3. Source isolation (no entry): N/A Yes No
Pumps or lines blinded, disconnected, or blocked

4. Ventilation modification: N/A Yes No
Mechanical
Natural Ventilation only

5. Atmospheric check after isolation and ventilation:

Oxygen % > 19.5%

Explosive % LEL < 10%

Toxic % PPM < 10 PPM H(2)S

Time

Tester's signature: _____

6. Communication procedures: _____

7. Rescue procedures: _____

8. Entry, standby and back up persons: Yes No
Successfully completed required training?
Is it current? Yes No

9. Equipment:

N/A Yes No

- Direct reading gas monitor – tested
- Safety harnesses and lifelines for entry
- Hoisting equipment
- Powered communications
- SCBA for entry and standby persons
- Protective clothing
- All electric equipment listed Class I, Division I, Group D and non-sparking tools

10. Periodic atmospheric tests:

Oxygen	<input type="text"/>	%	Time	<input type="text"/>	Oxygen	<input type="text"/>	Time	<input type="text"/>
Oxygen	<input type="text"/>	%	Time	<input type="text"/>	Oxygen	<input type="text"/>	Time	<input type="text"/>
Explosive	<input type="text"/>	%	Time	<input type="text"/>	Explosive	<input type="text"/>	Time	<input type="text"/>
Toxic	<input type="text"/>	%	Time	<input type="text"/>	Toxic	<input type="text"/>	Time	<input type="text"/>
Toxic	<input type="text"/>	%	Time	<input type="text"/>	Toxic	<input type="text"/>	Time	<input type="text"/>

We have reviewed the work authorized by this permit and the information contained here-in. Written instructions and safety procedures have been received and are understood. Entry cannot be approved if any items are marked in the "No" column. This permit is not valid unless all appropriate items are completed.

Permit prepared by: (Supervisor)

Approved by: (Unit Supervisor)

Reviewed by (CS Operations Personnel): _____ (printed name) _____ (signature)

APPENDIX D-2: Entry Permit

Permit valid for 8 hours only. All copies of permit will remain at job site until job is completed.

Date Site location and description

Purpose of entry:

Supervisor(s) in charge of crews: Type of crew:

Phone number:

Communication:

Procedures:

Rescue procedures (phone numbers at bottom):

****Bold denotes minimum requirements to be complete/ reviewed prior to entry****

Requirements Completed	Date	Time
Lock out / De-energize / Tag out	<input type="text"/>	<input type="text"/>
Line(s) broken-capped-blanked	<input type="text"/>	<input type="text"/>
Purge-flush and vent	<input type="text"/>	<input type="text"/>
Ventilation	<input type="text"/>	<input type="text"/>
Secure area (post and flag)	<input type="text"/>	<input type="text"/>
Breathing apparatus	<input type="text"/>	<input type="text"/>
Resuscitator - inhalator	<input type="text"/>	<input type="text"/>
Standby safety personnel	<input type="text"/>	<input type="text"/>
Full body harness w/D-ring	<input type="text"/>	<input type="text"/>
Emergency escape retrieval equipment	<input type="text"/>	<input type="text"/>
Lifelines	<input type="text"/>	<input type="text"/>
Fire extinguishers	<input type="text"/>	<input type="text"/>
Lighting (explosive proof)	<input type="text"/>	<input type="text"/>
Protective clothing	<input type="text"/>	<input type="text"/>
Respirator(s) (Air-purifying)	<input type="text"/>	<input type="text"/>
Burning and welding permit	<input type="text"/>	<input type="text"/>

Note: Items that do not apply enter N/A in the blank.

****Record continuous monitoring results every 2 hours****

Permissible

Tests to be taken		Entry level							
Percent of Oxygen	19.5% to 23.5%	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Lower flammable limit	Under 10%	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Carbon monoxide	+35 PPM	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Aromatic hydrocarbon	+1 ppm * 5 PPM	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Hydrogen cyanide	(skin) * 4 PPM	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Hydrogen sulfide	+10 PPM * 15 PPM	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Sulfur dioxide	+2 PPM * 5 PPM	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Ammonia	* 35 PPM	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

* Short term exposure limit. Employee can work in the area up to 15 minutes.
+ 8 hr time weighted average. Employee can work in area 8 hrs (longer with appropriate respiratory protection).

Remarks

Gas tester name	Check #	Instrument(s) used	Model and/or type	Serial and/or unti #
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Safety Standby Person is required for all confined space work.

Safety Standby Person	Check #	Confined Space Entrant(s)	Check#	Confined Space Entrant(s)	Check#
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Supervisor authorizing – all conditions satisfied

Department phone #

Ambulance Fire Safety Gas Coordinator

