



COMPLIANCE TRAINING
ONLINE.com

Cal/OSHA, DOT HAZMAT, EEOC, EPA, HIPAA, IATA, IMDG, TDG, MSHA, OSHA, Australia WHS, and Canada OHS Regulations and Safety Online Training

This document is provided as a training aid
and may not reflect current laws and regulations.

Be sure and consult with the appropriate governing agencies
or publication providers listed in the "Resources" section of our website.

www.ComplianceTrainingOnline.com



[Facebook](#)



[LinkedIn](#)



[Twitter](#)



[Google Plus](#)



[Website](#)

Appendix A

CONFINED SPACE HAZARD ANALYSIS

Name of Confined Space: _____

Space Location: _____

In order to determine if the space is a confined space, please answer “Yes” or “No” to the following questions:

A. IS IT A CONFINED SPACE?

1. Is the space large enough and so configured that a person can bodily enter and perform work?

- Yes
- No

Description: _____

2. And, does the space have limited or restricted means for entry or exit (e.g., tanks, pits, vessels, silos, storage bins, hoppers, vaults, and pits)?

- Yes
- No

Description: _____

3. And, is it not designed for continuous occupancy?

- Yes
- No

Description: _____

If you answered “No” to any one of the three questions above, then the space is NOT considered to be a confined space.

If you answered “Yes” to all three of the above questions, then the space is considered a confined space. Proceed to the section B and answer “Yes” or “No” to the following questions:

B. IS IT A PERMIT-REQUIRED CONFINED SPACE?

1. Is the internal configuration such that an entrant could be trapped or asphyxiated by converging walls or floors that slope downward and taper to a smaller cross-section?

- Yes
- No

Description: _____

2. Or, does it contain any other recognized serious safety or health hazard?
- Yes
 - No

Description: _____

3. Or, contains a material that has potential for engulfing an entrant?
- Yes
 - No

Description: _____

4. Or, contains or has the potential to contain a hazardous atmosphere?
- Yes
 - No

Description: _____

5. Or, is there anything hazardous that will be brought into the confined space?
- Yes
 - No

Description: _____

If you answered “No” to all five of the above questions, then the confined space is considered a non-permit required confined space.

If you answered “Yes” to any of the above questions, then the confined space is considered a permit-required confined space.

For both space classifications, (permit-required or non-permit required confined space), complete the following hazard assessment checklist to determine if other hazards are present in the space:

C. SAFETY HAZARDS

- Animals or insects (stinging, biting, snakes, skunks)
- Low ceilings (ergonomics, sharp objects, visual obstructions)
- Sharp objects
- Electrical hazards (live circuits, metal rope around electrical devices)
- Adverse temperatures (steam lines, coolant lines)
- Slippery ladder rungs
- Rusty surfaces (cuts, hides chemicals, poor footing)
- Chemical coated walls/surfaces
- Biological residue/slime (exposure, slippery surfaces, sewage)
- Loud ambient noise - traffic, etc. (annoyance, communications interference)
- Vibration (discomfort, noise)
- Poor lighting (can't read meters, can't perform critical tasks)
- Radiation

- Other extreme ergonomic conditions including those that may occur because of PPE limitations: respirators, fall protection harnesses, connection to retrieval equipment
 - Liquids on floor/walking surface (standing water)
 - Hazards external to the hole that could affect operations--combustion exhaust, possible precipitation, vehicle traffic, overhead electrical wires, chemical/hazardous materials lines nearby
 - Others:
-
-

D. HEALTH HAZARDS

Chemical Hazards: _____

MSDS available?

- Yes
- No

Asphyxiation Potential: _____

E. GETTING TO THE CONFINED SPACE

Is the entrance easily accessible?

- Yes
- No

Is a ladder or scaffold required?

- Yes
- No

Describe entrance: _____

Is there plenty of workspace available to set up all equipment at entrance?

- Yes
- No

Limitations: _____

Type of entry:

- Vertical
- Horizontal

F. INTERNAL CONFIGURATION

Are there low ceilings--how low?

Can a person:

- Walk in or crawl in?
 - On Hands & Knees
 - On Stomach/Back

Erect or Stooped?

Footing conditions inside space:

- Flat Surface
- Cramped or Limited
- Round (horizontal pipe)
- Uneven Surface
- Slippery Footing Surfaces
- Obstructions that have to be Stepped Over
- Sharp Objects
- Spilled Chemicals
- Other: _____
- Structural Cross Members
 - Low Ceiling
 - Head Hazards
 - Climb over Required
- Has a configuration that will prevent adequate purging.

G. ENGULFMENT HAZARDS?

- Liquid
 - Water always present?
- Powder/grains
- Sludge/Sewage

H. FALL POTENTIAL

- How far?
- Fall directly onto concrete/level surface?
- Fall onto something sharp?
- Any place to tie off/secure lanyard or winch?
- Extraction device available?

I. ENTRY CONDITIONS

Vertical Entries

- Stairs in place?
 - Industrial stairs?
 - Ship's ladders?
- Ladders Used?
 - Fixed ladders?
 - Condition: _____
 - Straight portable ladder?
- No ladders used
 - Tripod accessible?
 - Even surface, tripod okay?
 - Uneven surface, tripod not okay? Describe: _____
 - _____
 - Tripod available--has chain on legs, or not?

- Tripod unusable due to inability to place legs, cylindrical surface?
 - Requires some other method?
 - Davit?
 - Secure to overhead beam? (Beam structurally okay?)
- Some other method?
 - Horizontal support beam available over hole?
 - Need eccentric support or davit?

Horizontal Entries

- Elevation above ground?
- Work platform provided to upper elevation?
- Place to secure lifeline?
- Location to place mechanical device?
- Cut hazards can damage rescue rope?

J. ENTRANCE/EXIT CONFIGURATION

- Opening?
Type: _____
 - Round? _____
 - Yes What diameter? _____
 - No
 - Vertical
- How far? _____
- Horizontal
- How far? _____
- Both
- How far? _____

K. INTERNAL FEATURES

- Pipes with mechanical joints or possible openings inside space?
 - Materials in pipes/lines?
- Electrical equipment that needs servicing?
- Possibility of engulfment?
- Entrapping features (converging walls, wedging situations)?
- Pipe/lines going through the space?
 - Any mechanical joints (flanges, valves)?

L. CONTAMINANTS TO SAMPLE FOR

- Oxygen
- Combustible gas? Type: _____
- Toxics
 - Direct reading instrument available/type
 - Use Draeger/Colorimetric

M. KNOWN USE OF SPACE

- Original

- Present Use
- Contained Chemicals
- Oxygen consumers? (Rust, decay, wet carbon, chemical reactions, combustion)

N. HAZARDS/FEATURES OF THE SURROUNDING AREA

- Piping or chemical containers?
 - What chemicals? _____
 - How far away? _____
 - Possibility of spill into Confined Space? _____
- High noise levels? (Communications interference)
- Soil methane?
- Parking lot, loading area or parking spaces close by?
- Can anything fall into the hole?
- Poor lighting in the area?
- No electrical services?
- No ground point?
- Traffic hazards (in surrounding area)?

O. SEASONAL WEATHER EFFECTS

- Must the entry be made in bad weather?
- Could precipitation create a hazard - subject to rapid flooding?

P. OTHER

- High ambient noise (or anything that can hamper communications)?
- Ambient temperature extremes (heat stress, direct employee exposure, cold stress, ice formation on working surfaces)?

Q. HAZARDOUS ENERGY HAZARDS

- Moving machinery hazards?
 - Written lockout procedures in place?
- Electrical energy hazards?
 - Lockout procedures in place?
 - Lockout points identified?
 - Tagged/labeled?
 - Described in procedures only?
 - Chemical hazards - line breaking required?
 - Identified shutoff valve?
 - Line blanking required?

R. SITE SUPPORT FEATURES

- Certified grounding point available or in proximity?
- Electrical services present?
 - How many outlets? (two separate circuits recommended) _____
 - Generator required?
- Telephone nearby?

- Rope anchorage points available for rescue use?
- Other: _____

S. EQUIPMENT

Type of equipment needed to enter/exit space

- Portable Ladders?

T. VISUAL

- Poor lighting?
- Entrants cannot be visually observed by attendant?

U. VENTILATION

- Space has configuration that will hamper effective ventilation/purging
 - Convoluted Space
 - Large Volume
 - Second or additional opening
 - Exits Close Together
 - Favors Flow through Ventilation
 - Distance Openings Apart
- Estimate of Internal Volume of Space: _____

V. COMMUNICATIONS

- Internal Available
- Radio Required
- Voice Only Adequate
- Intrinsic Safety Design Required
- Radio Interference
 - Inside Space
 - Outside Space

W. DISTANCE INTO SPACE

- Greater than 50 feet? (Greater than length of extraction cable)
- Will require extra internal attendant(s)?

X. SEWER/MANHOLE WORK

- Telecommunications/Electrical?
- Sewer?
 - Sanitary?
 - Storm?
 - Combined?

Once the hazard assessment checklist is complete, file the completed form with the department performing the work and EH&S. Ensure that all necessary actions are completed before work commences. If necessary, consult EH&S for assistance.

- For entry into non-permit required confined spaces, use the [Pre-Entry Checklist for Non-Permit Required Confined Spaces \(Appendix B\)](#) and consult EH&S if necessary.

For entry into permit-required confined spaces, use the [Permit-Required Confined Space Entry Permit \(Appendix C\)](#) and consult EH&S for assistance.