

Small spaces, big risks

There are many types of confined spaces — tanks, vats, pits, tunnels, pipes, boilers — and more. All of them can be dangerous.

A confined space has three characteristics: It has limited openings for entry and exit, it is large enough to permit a worker to enter, and it is not designed for continuous worker occupancy.

These characteristics of a confined space cause it to present serious hazards. Here are some of the common ones:

- lack of oxygen, resulting in risk of suffocation
- fire or explosion from an accumulation of flammable vapors
- toxic vapors
- difficulty exiting the space in the event of an emergency
- cramped spaces to work in, resulting in a danger of being caught in equipment
- poor visibility
- high levels of noise
- temperature extremes

Working in a confined space requires special training. For example, it requires a good understanding of gas monitoring, ventilation systems, fire and explosion prevention, equipment lockout, and a thorough knowledge of the worksite's specific hazards.

You must know your company's procedures for safely entering a confined space and working in it. Confined spaces should be identified and classified, and safe entry procedures developed. Some confined spaces require a permit for entry.

Once you have determined if a work space is considered a confined space, be sure the confined space hazard assessment and control program has been followed.

A key question to ask is whether it's absolutely necessary the work be carried out inside the confined space. In many



victims should be rescued from outside the confined space, if possible. More than 60 per cent of deaths in confined spaces are would-be rescuers, who are not fully trained and adequately equipped.

Another worker qualified in confined spaces rescue procedures must be present outside the confined space before the first rescuer enters the confined space. Do not use the same air as the confined space workers you are rescuing. Wear SCBA (self-contained breathing apparatus) or supplied air respirator with an escape bottle.

In general, then, these are the things you should be aware of before you work in a confined space:

- how to enter and exit safely
- the atmosphere in the space has been tested and found to be free of dangerous levels of toxic or flammable vapors, and there is sufficient oxygen
- the atmosphere is going to remain safe while you are working
- the rescue plan in the event of an emergency, and that proper rescue equipment is available and in good condition
- another person outside the confined space is keeping an eye on you as you work, and they also know the rescue plan
- other procedures necessary to work safely, such as locking out energy sources

Performing a task safely in a confined space requires careful planning and preparation. Don't be tempted to take shortcuts. Follow all safety precautions and don't hesitate to speak up if you are unsure of the correct procedures.

SAMPLE ONLY

Confined Spaces

The Quiz

These questions are meant to help you remember what was discussed today — not to test your patience or challenge your intelligence. The answers are at the bottom of the page. Cover them up, and complete the quiz as quickly as you can.

1. All confined spaces can be dangerous.
TRUE ____ FALSE ____
2. Is special training required to work in a confined space?
YES ____ NO ____
3. Which of the following are characteristics of a confined space:
 - A. Lack of oxygen
 - B. Poor visibility
 - C. High levels of noise
 - D. Difficult access and exit
 - E. All of the above
4. Which of the following is an unlikely example of a confined space hazard:
 - A. Toxic vapour
 - B. Cramped conditions
 - C. Fire or explosion
 - D. Avalanche
 - E. Electrocutation
5. Have you been informed of the known confined space hazards at your worksite?
YES ____ NO ____
6. Name one potential confined space at your worksite

7. Which of the following is a poor way to avoid confined space risks
 - A. Enter only after the atmosphere in the confined space has been properly tested.
 - B. Learn the company's procedures for safe entry and exit of a confined space.
 - C. Act swiftly to attempt a rescue, even if you are alone.
 - D. Work in a confined space only if it's absolutely necessary.
8. Does your company have a confined space training program in place?
YES ____ NO ____ DON'T KNOW ____

Hold These Thoughts

Anyone working in a confined space must be constantly alert for any changing conditions within the confined space. Another worker, the Safety Watch or Standby, is posted outside the confined space and continuously monitors the workers inside the confined space.

If a situation arises where there is a hazardous condition and the worker does not leave or is unable to leave the confined space, rescue procedures should begin immediately.

The Safety Watch is qualified in confined spaces rescue procedures and will be available immediately to provide emergency assistance if needed. The Safety Watch should be familiar with the structural design of the confined space. The Safety Watch is in constant communication with the worker inside the confined space and will:

- Have all required rescue equipment (for example, safety harnesses, lifting equipment, a lifeline) immediately available and be trained in its use.
- Hold a basic first aid certificate.
- Can do Cardiopulmonary Resuscitation (CPR).

The detailed plan for emergency response to an emergency within the confined space should be described in detail in the Confined Space Hazard Assessment and Control Program.

Rescue the victims from outside the confined space, if possible. No other worker should enter a confined space to attempt a rescue unless that worker is fully trained in the rescue procedures and is wearing the appropriate personal protective equipment. More than 60 per cent of deaths in confined spaces are would-be rescuers, who are not fully trained and adequately equipped.

Another worker qualified in confined spaces rescue procedures must be present outside the confined space before the first rescuer enters the confined space. Do not use the same air as the confined space workers you are rescuing. Wear SCBA (self contained breathing apparatus) or supplied air respirator with an escape bottle.

ANSWERS: 1. True, 2. Yes, 3. E., 4. D., 5. Your answer, 6. Your answer, 7. C., 8. Your answer

Weekly Safety Meeting

For the Record

Date of Meeting: _____

Topic: _____

Location: _____

Department: _____

Start Time: _____ Finish Time: _____

Meeting Leader: _____

In Attendance:

SAMPLE ONLY

Tips for Safety Meeting Leaders

Review and understand the topic you plan to present. Since each job has individual safety requirements and problems, take the time to make notes that pertain to the job at hand.

Ensure everyone has been informed and are aware of the meeting in advance, and insist on punctuality and cooperation.

Convey the Information. Remember, you are the one conducting the meeting, so you must get the participants' attention and keep it. Delivery of the information is the key to having a maximum effect/minimum time meeting.

Have enough copies of the topic to hand out, so everyone can follow along.

Never allow horseplay or interference. Remind all participants that this session is very important and is costing your employer time and money. If prepared well, these meetings can be finished in less than 15 minutes.

Once the material has been covered, invite questions and ask for any safety recommendations. Avoid discussions on unrelated matters.

Upon completion of the meeting, have all personnel sign the form and get them started on the job.