



monitor the entrance of a permit-required confined space. The attendant and anyone entering the space needs to be aware of the hazards they face, including recognizing the signs or symptoms and consequences of exposure.

They also need to understand how to use equipment they are working with properly. One person must remain on the outside while the other is inside, and communication lines must be maintained. The individual who remains outside should know first aid and CPR.



Rescuing Those in Trouble

It is human nature to help a person in trouble. But the sad fact is that untrained rescuers usually die along with the victim they are trying to save. Holding your breath is not enough protection in a confined space that is filled with a hazardous vapor, is oxygen deficient, or is blanketed with smoke.

Calling for help is the most important thing you can do to save the life of a person who is unconscious in a confined space. Only if you have appropriate rescue equipment and back-up personnel immediately



available should a rescue attempt be made.

Getting Assistance

For more information about confined space or to schedule additional training, contact EH&S.

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Confined Space



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No Room for Error

Many workplaces contain spaces that are considered "confined" because their configurations hinder the activities of any employees who must enter, work in, and exit them. In addition, there are many instances where employees who work in confined spaces face increased risk of exposure to serious hazards. In some cases, confinement itself poses entrapment hazards. In other cases, confined space work keeps employees closer to hazards, such as asphyxiating atmospheres or moving machinery parts.



Confined Spaces

A confined space is any space that:

- is large enough or so configured that an employee can bodily enter and perform assigned work; and
- has limited or restricted means for entry or exit, such as small openings or openings located in locations difficult to access; and

is not designed for continuous employee occupancy. They may be designed to store a product, enclose materials and processes, or transport products or substances and frequently do not have good ventilation or lighting. A special permit is required if the con-



finned space has or could have a hazard capable of causing death or serious harm, such as a hazardous or toxic atmosphere, rotating or moving mechanical parts, or excavations.



Hidden Dangers

We think that if a space looks safe, it is safe. But most hazardous atmospheres are invisible. You cannot see, taste or smell most toxic and deadly atmospheres.

Before you finish reading a simple eighteen word sentence like this one, methane gas can knock you out. Exposure to some organic vapors may not kill you until the next day.

Often, a person will forget that a hazard may develop after they have entered a space. Sometimes, the work you are doing inside the confined space causes the atmosphere to become deadly. If this is a possibility, testing for the space must be an ongoing process, not just something you do before someone enters.



Safety Precautions

With the hazards associated with entering a confined space, openings should be inaccessible to any unauthorized person and properly marked with warning signs

around the area, such as "DANGER—CONFINED SPACE, DO NOT ENTER".

Due to the potential of gas build-up in confined spaces:

- ventilation should be used before entry
- utilize a proper breathing apparatus unless the area has been tested as safe
- use a self-contained breathing apparatus (SCBA) when safety has not been verified
- along with wearing a SCBA, a retrieval system must be used as well.



Responsibilities & Training

Everyone involved in a confined-space entry project has certain responsibilities and requires a certain amount of training. It is very important that every individual is familiar with their responsibilities.

Before entering a confined space, the person supervising the crew going in should make sure of the following:

- persons entering the space are knowledgeable of the hazards and have proper safety equipment; and
- the monitoring requirements have been established and the area is properly posted.



At least one person is required to