



# Health & Safety

Britt E. Allgood • Universal Fasteners, Inc./YKK  
P.O. Box 276 • Centerville, TN 37033

## Confined Space Entry

**F**or many years, the Occupational Safety and Health Association (OSHA) has assembled a program for entering spaces that have restricted access or egress. The culmination of this program is now known as Chapter 29 CFR 1910.146 "Permit required confined spaces," and should not be taken lightly.

You are probably one employer of many who are now required to evaluate and train your employees to the dangers associated with entering confined spaces. Your obligation does not stop there, however. As the host company, you are also required to oversee any entries made by outside contractors. In this article, the general steps to the formation of a confined space entry program will be discussed, as well as a few definitions.

### What Exactly Is a Permit Required Confined Space?

A "confined space" is defined by OSHA as "a space large enough to enter bodily and perform work; and has a limited or restricted means of entry or exit; and is not designed for continuous human occupancy." Some examples of confined spaces are duct work, tanks, hoppers, vaults, pits, and some pieces of machinery.

A "permit required confined space" is defined by OSHA as "a space that meets the definition of a confined space and has one or more of the following characteristics:

- Contains or has the potential to contain a hazardous atmosphere
- Contains a material that has the potential for engulfing an entrant
- Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls, or by a floor which slopes downward and tapers to a smaller cross-section
- Contains any other serious safety or health hazard

Note that the last item has applicability to any questionable situation. These questionable hazards can include thermal, electrical, and mechanical issues and should be addressed when evaluating for confined spaces.

### How to Set Up a Confined Space Entry Program

The confined space program may seem like an overwhelming task for most employers, but it can be handled with a little information, organization, a lot of time, and—last but not least—money. Armed with the definitions of a confined space and a permit required confined space, you or your team should perform a plant-wide assessment (indoors and outdoors) for confined spaces. The assessment should include notes on frequency and necessity of entry into suspected confined spaces, as well as obvious hazards to the space.

Once you have noted all the areas that are suspected to be confined spaces, review the definition of a permit required confined space and determine if it applies to any of your confined spaces. If the definition applies, isolate the hazard and determine if it may be redesigned to eliminate the problem. This measure can reduce the total amount of permit required spaces in your facility. Once the assessment and changes have been accomplished, you are required to notify all employees who are exposed to the hazards of the confined space; this is generally accomplished with a meeting and posting of signs.

### Working Out the Details

It is time to make the following decisions regarding your program:

- Will the program be prepared in-house or contracted out (to whom)?
- Who will be in charge of the facility's program?
- Will the company rely on an outside rescue service or have an in-house team?

- How big will the in-house team need to be and who will be on it?
- Who should be trained as an entrant and not a member of the rescue team?
- What type and how much equipment will have to be purchased for the program?
- How much production will be lost because of required training from the outside or in-house teams?

At this point in the preparation of your program, good communication between upper management, the floor supervisors, the health and safety director, and the consultant(s) is critical. Some of the topics discussed should be the price of equipment, dedicated manpower, proper recordkeeping, medical evaluations, required training, equipment inspections, and program audits.

Preparing a program in-house will require additional hours for research and will increase the cost. Our facility contracted the job and asked the consultants to advise us on equipment and to provide all the required training. We felt that this course of action saved considerable time and expense overall. When attempting to set up a confined space program, remember that your operation is unique. Only you—working with or without a contractor—will be able to make the program work. □

### About the Columnist

Britt Allgood is a senior production engineer with Universal Fasteners, Inc., a subsidiary of YKK Corporation of America. He graduated from Tennessee Technological University and holds an MS in chemistry. He is vice president of the Mid-Tennessee Branch of the AESF, a member of the AESF OSHA and Water Committees, and a member of the American Chemical Society.