

## Working in Confined Spaces

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Twenty-five years ago, it was a spring ritual for some state weight station operators to gather together and clean a winters worth of debris from the vehicle scale pits. Several workers would squeeze through the manhole and form a bucket brigade to move the mud closer to the holes where others would then pull the buckets up and dump them for haul-off. Neither the workers nor management thought this was a particularly dangerous activity until the year that a truck carrying acid leaked onto the scale. Even after professional cleaning inside and out, there were still enough residual fumes to overcome the first employee entering the pit, resulting in a rescue situation.

This is a classic example of **a hazardous environment made dangerous by not following safety procedures**. The scale pits still need to be cleaned but as workers and managers, we must ensure that safety plans are in place and precautions are used to get the job done without injury or death. Many people do not associate Weights & Measures inspections with confined space hazards but in fact many inspectors, especially those performing heavy capacity scale tests, are routinely working in industrial areas with entrapment or confinement potential. Occupational Safety and Health Administration publication OSHA 3138-01R 2004, available at [www.osha.gov](http://www.osha.gov) describes two distinct categories:

**Confined space** is an area large enough for an employee to enter fully, which is not designed for continuous occupancy and has limited or restricted entry or exit. This description would include anytime you are in a vaulted vehicle scale, under an above- ground scale or where you are placed between the scale and a diked area adjacent to the scale. Temporary vehicle scale installations that are built in pits with inwardly converging walls can also be considered confined space and appropriate safety cautions must be taken. Grain silos, industrial weigh- hoppers or other devices in production areas should be evaluated for confined space criteria.

**Permit-required confined space** is defined separately and only has to meet one of the following characteristics:

- **Contains or has the potential to have a hazardous atmosphere** such as vaulted scales in suspect geographical areas where underground gasses are known to exist (landfill scales). It is also common for an inspector to enter a permit-required space when testing scales in an oxygen/acetylene plant.
- **Contains a material with the potential to engulf someone in the space;** grain or aggregate hoppers first come to mind but actually testing in a goose down factory could also meet this criteria.
- **Space with an internal configuration that has sloping walls** or floor, tapering to a smaller cross section which could trap or asphyxiate.

Almost all weigh hoppers meet this definition whether they are tank or open air style.

**A space with any other recognized serious safety or health hazards.** This is a catch-all definition to describe other areas where it is necessary for health and safety issues, to limit access to authorized entrants only.

Since 1970, OSHA has encouraged states to implement their own job safety plans which are approved and monitored through regional OSHA offices. This article is meant to alert everyone to the hazards of confined space and spur a review of your individual safety plans.