

Together With **TENNESSEE TOSHA**



SUMMER 2009

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Permit-Required Confined Space Training

By definition, a confined space:

- ▶ Is large enough for an employee to enter fully and perform assigned work;
- ▶ Is not designed for continuous occupancy by the employee; and
- ▶ Has a limited or restricted means of entry or exit.

Confined spaces may be encountered in virtually any occupation and may include underground vaults, tanks, storage bins, pits and diked areas, vessels, silos and other similar areas. More than 60% of confined space fatalities occur among would-be rescuers.

Since deaths in confined spaces occur because there is a hazard in a space, these hazards must be recognized before entry, steps must be taken to eliminate or control them, and measures must be instituted to limit entry into the spaces to trained personnel.

By definition a permit-required confined space (PRCS) meets one or more of the following criteria:

- ▶ Contains or has the potential to contain a hazardous atmosphere;
- ▶ Contains a material with the potential to engulf someone who enters the space;
- ▶ Has an internal configuration that might cause an entrant to be trapped or asphyxiated by inwardly converging walls or by a floor that slopes downward and tapers to a smaller cross section; and/or
- ▶ Contains any other recognized serious safety or health hazards

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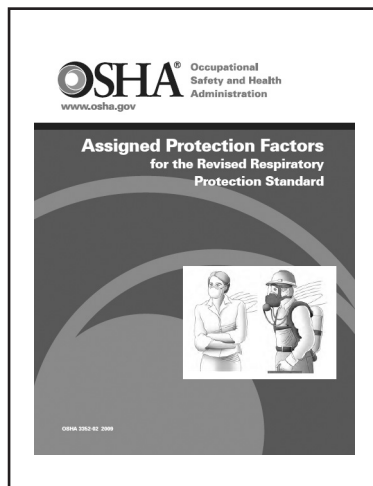
Summary of 2008 Workplace Fatalities

In calendar year 2008, there were 38 separate events investigated by TOSHA where employees were killed on the job. One event, involving confined space entry, was doubly tragic as two lives were lost, making a total of 39 workplace fatalities in the year. There was one catastrophe where three employees fell to the ground while working from a wood platform across two roof bar joists when one of the bar joists gave way, but all three survived.

TOSHA investigates most fatalities where an employer/employee relationship exists. TOSHA does not investigate traffic fatalities because the police department/highway patrol has that jurisdiction. TOSHA does not investigate assaults and violent acts because the police department has that jurisdiction also. Descriptions of the events surrounding the fatalities may be found at TOSHA's Internet site located at www.tennessee.gov/labor-wfd/tosha.html.

Falls	15
Struck by	14
Overturned Equipment	3
Crushed by	1
Drowning	1
Electrocution	1
Explosion	1
Oxygen deficiency	2
Thrown from	1
Total	39

Assigned Protection Factors Guide



OSHA has published a pamphlet titled "Assigned Protection Factors for the Revised Respiratory Protection Standard." Employers should read this guide if it is likely that they will need to establish and implement a respiratory protection program. The respiratory protection standard, 29 CFR 1910.134, was revised to add definitions and requirements for Assigned Protection Factors (APFs) and Maximum Use Concentrations (MUCs).

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Assigned Protection Factors Guide (continued)

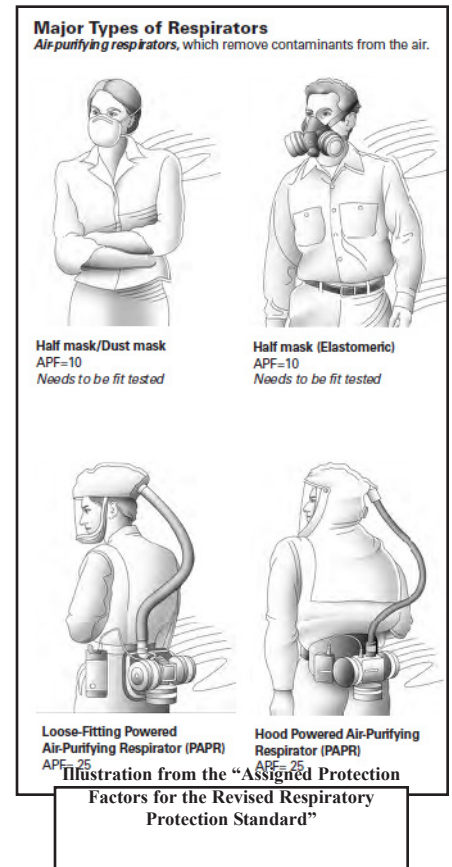
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This guide provides employers with critical information to use when selecting respirators for employees exposed to atmospheric contaminants in industry. OSHA developed the APFs after thoroughly reviewing the available literature, including workplace protection factor studies, comments submitted to the OSHA record, and testimony at hearings held on the subject.

The guide answers the following questions:

- ▶ What are APFs and MUCs?
- ▶ How Do You Use APFs and MUCs?

Briefly, under paragraph (d)(3)(i)(A) of the respiratory protection standard, employers must select respirators according to the APFs; under paragraph (d)(3)(i)(B) employers must select respirators after considering the MUCs in their workplace under which respirators are to be used. The guide is OSHA publication number 3352-09 and is available at www.osha.gov by clicking on "Publications."



Permit-Required Confined Space Training (continued)

Before the initial work assignment involving PRCS entry begins, the employer must provide proper training for all workers who are required to work in permit spaces. After the training, employers must ensure that the employees have acquired the understanding, knowledge and skills necessary to safely perform their duties.

Additional training is required when:

- ▶ The job duties change;
- ▶ A change occurs in the permit space program or the permit space operation presents any new hazard; and
- ▶ An employee's job performance shows deficiencies.

In addition to this training, rescue team members also require training in CPR and first aid. Employers must certify that training has been provided. After completion of training, the employer must keep a record of employee training and make it available for inspection by employees and their authorized representatives. The record must include the employee's name, the trainer's signature or initials and dates of the training.

Find it on OSHA.gov - Carbon Monoxide Quick Card

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Carbon monoxide (CO) is a colorless, odorless, toxic gas which interferes with the oxygen-carrying capacity of blood. CO is non-irritating and can overcome persons without warning. Many people die from CO poisoning, usually while using gasoline-powered tools and generators in buildings or semi-enclosed spaces without adequate ventilation.

Effects of Carbon Monoxide Poisoning

Severe carbon monoxide poisoning causes neurological damage, illness, coma and death.

Symptoms of CO exposure

- ▶ Headaches, dizziness and drowsiness
- ▶ Nausea, vomiting, tightness across the chest

Some Sources of Exposure

- ▶ Portable generators/generators in buildings
- ▶ Concrete cutting saws, compressors
- ▶ Power trowels, floor buffers, space heaters
- ▶ Welding, gasoline powered pumps

Preventing CO Exposure

- ▶ Never use a generator indoors or in enclosed or partially enclosed spaces such as garages, crawl spaces, and basements.
- ▶ Make sure the generator has 3-4 feet of clear space on all sides and above it to ensure adequate ventilation.
- ▶ Do not use a generator outdoors if placed near doors, windows or vents which could allow CO to enter and build up in occupied spaces.
- ▶ When using space heaters and stoves ensure that they are in good working order to reduce CO buildup, and never use in enclosed spaces or indoors.
- ▶ Consider using tools powered by electricity or compressed air, if available.
- ▶ If you experience symptoms of CO poisoning get to fresh air right away and seek immediate medical attention.

TOSHA TIPS



Condition: The employer did not certify that each powered industrial truck operator has been trained and evaluated.

Potential Effects: Contusions, abrasions, fractures and crushing injuries from forklift trucks striking an employee when employees are not trained. Certification is an assurance that employees have been trained.

Standard: 29 CFR 1910.178(l)(6)

Recommended Action: The previous "TOSHA Tip" in the spring edition of this newsletter described what is required for the evaluation of

powered industrial operators. Recapping that information, after the operator has received the training necessary, and at least every three years thereafter, it is the employer's responsibility to evaluate the operator to determine that he/she can drive the truck safely. Once the evaluation is successfully completed, it is furthermore the employer's duty to create a written certification document whereby the employer certifies that the operator has been trained and evaluated as required by 29 CFR 1910.178(l)(6).

The certification document must contain the following information:

- ▶ Operator name
- ▶ Training date
- ▶ Evaluation date
- ▶ Name of person(s) performing the training or evaluation

Failure to certify the training and evaluation may result in a citation from TOSHA.

LEARN & LIVE

A TOSHA Case File Summary

To Prevent Such Incidents from Happening



A 45-year old and a 32-year old worker were killed while buffing floors at a day care center. The husband and wife team were cleaning the floors during the overnight hours using a propane-powered floor buffer. Their bodies were discovered by police on patrol who saw them through an open window slumped over about 2 am. The fire department responded to the scene and measured carbon monoxide levels in the room at a very high level. The medical examiner confirmed that the cause of death was carbon monoxide poisoning in an inadequately vented workspace.

1. Ensure that employees are not exposed to an airborne concentration of carbon monoxide listed in Table Z-1-A of TDL Rule 0800-1-1-.07(2)(b) in excess of 200 parts per million (ppm) as a 5-minute Short-Term Exposure Level concentration.
2. Determine and implement feasible administrative or engineering controls (adequate ventilation) to achieve compliance with the limits prescribed in TDL Rule 0800-1-1-.07(2)(b).
3. Provide employees with effective information and training on hazardous chemicals (carbon monoxide) in their work area.
4. Develop, implement and maintain at each workplace, a written hazard communication program which at least describes how the criteria for labels and other forms of warning, material safety data sheets, and employee information and training will be met.
5. Maintain a material safety data sheet in the workplace for each hazardous chemical (carbon monoxide) used or generated in the workplace.
6. Do not use propane-powered equipment (or any internal combustion engine) indoors without adequate ventilation to remove carbon monoxide which may be generated.