

FACE Facts

SAFETY ALERT



Occupational Health Surveillance Program
Massachusetts Department of Public Health
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Open-top tractor trailers loaded with loose material have the potential to engulf and suffocate workers. These are **permit-required confined spaces**.

Incident

In 2008, a 47-year-old truck driver was fatally injured while transporting woodchips in an open top 18-wheel tractor trailer equipped with a movable floor unloading system. During offloading, the woodchips jammed against the trailer's top cross stability bar. While attempting to clear the jam, the truck driver climbed to the top of the trailer, stepped onto the woodchip pile, and then fell through the woodchips to the bottom of the pile. He was engulfed by the woodchips and suffocated.

Recommendations for Employers

Employers using open-top tractor trailers to transport loose material, such as woodchips, should:

- Ensure that trailers are identified and labeled as confined spaces.
- Develop, implement, and enforce a permit space program for permit-required confined spaces. (See box on reverse side for more information on confined spaces.)
- Provide confined space training for employees that address all potential hazards inside open top trailers, such as engulfment by woodchips.



In addition, employers using **open top trailers with movable floor unloading systems** to transport loose material should:

- Never fill trailers above cross stability bars. This will minimize jamming during offloading.
- Develop and strictly enforce procedures on how to clear jammed material where employees do not have to enter the trailers.
- Train employees about the potential formation of voids within loose material inside trailers that can engulf them. These unnoticeable voids can develop within the material, especially during material jams when offloading.
- Install automatic sweeping tarps as part of movable floor unloading systems, available from most system manufacturers, to reduce the need for employees to enter trailers.

Employees operating open top trailers to transport loose material should:

- Only enter trailers loaded with loose material if the permit space program requirements are strictly followed.
- Never enter trailers loaded with loose material if your employer does not have a permit space program or you were not trained on permit confined spaces.
- Always follow the manufacturer's guidelines on the safe operation of movable floor unloading systems.

More information about **CONFINED SPACES** on back



CONFINED SPACES

Tractor trailers are **confined spaces** because they:

- 1) Have limited or restricted means for entry or exit; and
- 2) Are not designed for continuous employee occupancy.

Confined spaces fall into two categories:

- 1) **Non-permit confined spaces**, such as empty open-top tractor trailers. These confined spaces typically do not contain hazards that will cause serious injury or death.
- 2) **Permit-required confined spaces**, such as woodchip-loaded open-top tractor trailers. These confined spaces contain one or more of the following:
 - A material that could engulf workers. These materials are loose or unstable, and could collapse on workers and trap, bury or injure them.
 - A hazardous, oxygen-deficient, toxic, and/or explosive atmosphere created by restricted airflow, or the build-up of toxic gasses, such as carbon monoxide, methane, or hydrogen sulfide.
 - An interior space with inwardly converging walls or downward sloping floors that could cause a worker to become trapped.

Written procedures on how to enter permit-required confined spaces, called **permit space programs**, are required by OSHA. Employers **must** develop a permit space program and **train** employees if they will enter these spaces. Permit space programs should include, but are not limited to, developing, implementing, and enforcing procedures on:

- Preventing unauthorized entry into permit spaces.
- Eliminating / controlling hazards for safe entry into permit spaces.
- Ensuring at least one person is located outside the permit space while workers are inside.
- Contacting rescue and emergency services (only authorized personnel should attempt rescues).

For more information, see the OSHA Permit-Required Confined Space Regulation 29 CFR 1910.146.

Confined Space Resources

Occupational Safety & Health Administration (OSHA)

- Safety and Health Topic: Confined Spaces
www.osha.gov/SLTC/confinedspaces/

National Institute for Occupational Safety and Health (NIOSH)

- Safety and Health Topic: Confined Spaces
www.cdc.gov/niosh/topics/confinedspace/

Massachusetts Health and Safety Resources

Massachusetts Division of Occupational Safety

- Offers free consultation services to help employers improve their safety and health programs and train employees.
www.mass.gov/dos/consult

Massachusetts Department of Industrial Accidents

- Has grants available for providing workplace health and safety training to employers and employees in companies covered by the Massachusetts Workers' Compensation Insurance Law.
www.mass.gov/dia/Safety

The Massachusetts Department of Public Health (MDPH), in cooperation with the National Institute for Occupational Safety and Health, conducts the project known as FACE (Fatality Assessment and Control Evaluation). FACE seeks to prevent occupational fatalities by identifying and investigating these incidents and then developing and disseminating prevention strategies to those who can intervene in the workplace.

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