



## Belly dump trailers

### Initiative

In November 1996, the Minnesota Occupational Safety and Health Division (MNOSHA) investigated the death of a belly dump operator who was crushed when the gates of the belly dump trailer closed without warning.

The purpose of this Minnesota OSHA Safety Hazard Alert is to heighten public awareness of the potential for death and/or serious physical injury due to belly dump/bottom dump trailer gates closing on employees. This bulletin is intended to bring this hazard to the attention of employers, employees, MNOSHA, federal OSHA and Mine Safety and Health Administration (MSHA) field personnel. In addition, this bulletin is intended to alert MNOSHA, federal OSHA and MSHA field investigators to this hazard so the scope of future inspections adequately addresses the hazard.

### Description of hazard

In cold conditions, it is quite common for a belly dump/bottom dump operator to spray the inside of a belly dump/bottom dump trailer with antifreeze, diesel fuel or another releasing agent. The reason for this is to keep products, such as gravel, from freezing to surfaces and aid them in sliding out of the trailer. One method of spraying the inside of a trailer is to open the gates of the belly dump/bottom dump, crawl under the trailer and then stand up between the open gates. When the employee is in this position, he or she can easily spray the inside of the trailer. Belly dump operators may also place themselves in this hazard area while cleaning inside the trailer, for example, asphalt haulers.

### Controlling and eliminating the hazard

To eliminate this hazard, belly dump/bottom dump operators need to securely block open the gates, disconnect the power source – for example, air lines, electrical lines or hydraulic lines – and/or release all air from the reservoir for gate operation on the trailer. Two known methods of blocking the gates open are as follows.

1. If equipped with gate end chain slots, a gate retainer bar can be fabricated to hold the gates open.
2. A piece of angle iron may be placed on each extended air cylinder rod and secured in place.

Commonly, the belly dump/bottom dump manufacturer will have specific safety procedures written in the owner's manual that comes with each trailer. If the manual has been misplaced, the manufacturer can send the information needed. MNOSHA is concerned that fatalities and/or serious

injuries will result if belly dump/bottom dump operators do not follow all manufacturer instructions and use proper lockout procedures.

**For more information**

Employers and employees with questions and/or concerns about this hazard may consult Minnesota Rules 5207.0600, subparts 2 and 4, the 29 Code of Federal Regulations 1926.600(a)(3)(i), the 30 Code of Federal Regulations 56.14105 and 56.14221 (a-e), or call MNOSHA at (651) 284-5050.

**Acknowledgements**

The principal contributor to this Minnesota OSHA Safety Hazard Alert is Jill J. Hollermann, MNOSHA senior safety investigator.