



Balancing act

Keeping a level load helps ensure your dump truck remains upright

The accident: Two dump truck operators were moving dirt to build an embankment as part of a highway project. The driver of one truck thought his dirt was emptied and pulled forward, tipping onto an adjacent dump truck. The driver of the second truck was trapped and suffered an injured back and broken bones.

The bottom line: A post-accident investigation determined the accident was caused by the first driver's unbalanced load. Once he drove forward, the weight of the load in the raised dump box pulled the truck into the roof of the truck sitting parallel, which also had a raised dump box.

Improving the odds

Tip-overs are a common accident for this type of vehicle, particularly on sites with sloping or uneven terrain. Minimize your risk by recognizing factors that increase the danger of a tip-over.

When the box is in the raised position, maintaining stability becomes difficult. As the center of gravity shifts away from between the frame rails of the box, the risk of tipping over will increase. The drivers in this accident made a critical error by parking parallel to one another during a dumping operation. Never dump when you're beside another truck, and ensure the surface you're parked on is as level as possible. If you're dumping a material that is likely to stick in the box, avoid even the slightest slope. Don't leave materials in the box overnight during cold weather; freezing temperatures can also cause the load to stick.



The importance of maintenance

Prior to an operation, perform a walk-around of the truck, paying particular attention to the tires. Underinflated rear tires can contribute to tipping over, so be sure and check the pressure. Inspect the suspension system, as well.

Shifting loads

A crucial part of ensuring stability is an even load. The material should be loaded evenly from front to back and side to side. In the case of this accident, the remaining material in the box was too heavy on one side. A truck that's too far back in the box can tip the truck backwards. A load placed too far to the front will negatively impact steering and braking.

If the material you're carrying is wet, watch for surging loads. If you brake too hard, the load can slide forward, pushing the truck even when the brakes are applied. **EW**

Information for this Safety Watch came from an accident report, Vista Training's Dump Truck Operation & Safety

video (www.vista-training.com) and the Center for Disease Control's NIOSH program. It is for general information only.