In the steep mountains of West Virginia where much of our natural gas comes from today, a dozer is often required to pull trucks uphill to the well sites. Dozens of trucks are needed on a regular basis to build and maintain all the infrastructure for these fracking sites.

On the day of this accident the 24-year-old driver of a semi-truck carrying concrete had stopped at the bottom of a gravel road with a 10 percent grade. The dozer operator backed down the hill and halted within 3 feet of the front of the truck, even though the safety protocol required the dozer to maintain 6 feet of separation from trucks.

It is thought that the dozer operator chose the 3-foot distance because the truck drivers were having difficulty dragging the tow chains (about 50 pounds) over the longer distance. The dozer operator lowered the blade to within 6 inches off the ground, but not on the ground as recommended by his employer for this type of procedure.

The truck driver set the parking brake and exited his truck to hook it up to the dozer tow point. When he realized he needed a large D-ring to make the connection, he called out to the dozer operator. Again, although safety protocols required that the dozer operator stay in the cab of his machine, the operator was exiting the cab with a spare D-ring in hand when he accidently hit the parking brake lever with his foot. The dozer rolled backward trapping the semi-truck driver between the truck's front bumper and the rear of the dozer. Emergency personnel were called but the semi-truck driver was pronounced dead on the scene.

The employers of both the truck driver and the dozer operator conducted regular safety training specific to these applications and jobsites. Failure to follow these recommendations likely contributed to the fatality.

How this accident could have been prevented

- When preparing to tow a vehicle or piece of equipment, do the hookup on flat ground with both machines turned off and parking brakes on.
- If level ground isn’t available, offset or stagger the machine from the unit being pulled so that even if the machine rolls, it will not roll into the trailing unit.
- Identify hazardous zones and functions between or near vehicles that could result in crushing injuries during the connection process.
- During the connection process, the dozer operator should remain in the cab.
- Ensure vehicles are properly equipped for towing before initiating the towing connection procedures (either have a D-ring pre-mounted on the truck’s hitch pin or have a D-ring in the truck).
- Before standing up from the operator’s seat (such as when adjusting the operator’s seat), lower the blade or work tool completely to the ground, set the safety lock lever and parking lever securely to the lock position, then stop the engine.

For more information on this accident and ways to prevent similar accidents, go to: www.cdc.gov/niosh/face/pdfs/full201501.pdf