



Illustration by Don Lomax

Fatal decision

The company had a good safety program, but a split-second impulse negated all that.

The job was to install a geotextile mat in a swale that was about 100 yards long and 40 yards wide. The swale had been dug with 45-degree banks about 10 feet high running on both sides. The final bit of earth-moving was to dig two shallow trench terraces on top of the banks 2 feet from the edge. Afterward the geotextile would be draped over the trenches and dirt backfilled to hold it in place.

To get close to the top edge of the bank, the victim positioned the backhoe at an angle to the length of the bank with the right rear tire on the edge. The backhoe's stabilizers were lowered, but the machine was so close to the edge that the right-side stabilizer came to rest on a sloped part of the bank.

The victim cut the first few feet of the trench at the top and was

attempting to move the backhoe forward but hit a large, flat rock with the front left tire. This shook the steering column. The victim, in an attempt to get control of it, turned his seat half way between the rear and front operating positions. In doing so, he accidentally hit the transmission lever and threw the machine into reverse.

The right rear wheel dropped down the bank, tilting the machine hard to the right. Fearing a violent rollover, the victim took off his seat belt and attempted to jump out of the cab to the high side, but somehow ended up below the machine. Sprawled on the dirt, he was run over by the rear wheel, the front wheel and then the front bucket. The backhoe, however, never rolled over and came to rest at the bottom of the swale. Rescue personnel were called, but the victim was pronounced dead at the scene from blunt trauma injuries.

How this accident could have been prevented:

- Train employees to stay in the cab with the seat belt fastened during a rollover. There is a reason they call it a ROPS – a rollover protective system.
- Never position the wheels or tracks of a machine on the edge of a slope or at an angle near the edge of a slope. Even if you don't accidentally go into reverse and back down the slope, the dirt at the top may give way and cause the machine to tumble.
- Use the right machine for the job. In this case, an excavator with an offset boom could have easily dug the trench while keeping the tracks parallel to and at a safe distance from the edge of the bank.

For more information on this accident see: <http://bit.ly/NIOSHroll>

Date of safety talk: _____ Leader: _____
 Attending: _____