

Tandem lift tragedy



Illustration by Don Lomax

Two excavator operators were using a tandem lift procedure to carry a 128-foot section of 16-inch gas pipeline from a staging area to the installation area at the bottom of a hill. The pipe was secured by two slings about 20 feet from each end of the pipe.

All excavator operators had completed the appropriate training and were considered experts on excavating operations. Although the victim was new to the company, he had 20 years of work experience operating heavy equipment, including excavators, and had been a member of the International Union of Operating Engineers. But according to OSHA, the employer had not established procedures for using two excavators during a lifting operation.

The two excavators lined up on one side of the pipe, picked it up using slings and proceeded to walk it toward the trench.

Once they got to the bottom of the hill, the excavator operators had to maneuver to the opposite side of the pipe to get into position to drop it in the trench. The first excavator lowered his end of

the pipe to the ground and signaled to a coworker on the ground to detach the sling. Then he crawled the machine around to the opposite side of the pipe where the ground worker reattached the sling. The operator then raised the boom and picked his end of the pipe up off the ground again.

The victim in the second excavator at the opposite end of the pipe attempted to do the same but did not lower his end of the pipe to the ground or detach the sling. At the point where he was halfway around the pipe, the end of the pipe came crashing through the windshield of the cab and struck him in the chest.

Police and emergency services rushed to the accident site, but the operator was pronounced dead at the scene.

Investigators believe the boom on the victim's excavator may have accidentally pulled back, sending the pipe crashing into the cab. The difference in elevation between the two machines may have also caused or contributed to the pipe's movement.

How this accident could have been prevented:

- Implement a comprehensive safe work procedure for tandem lift operations. A lift plan should have been calculated and communicated, so the load could not swing directly in front of the operator's cab.
- Conduct a job hazard analysis on each worksite and procedure before work starts. Provide worker training that includes hazard recognition and avoidance of unsafe conditions. A formal, written lift plan is advisable.
- Implement an effective method of communication between excavator operators and ground workers. This should include hand signals and two-way radios.
- While excavators with chains, slings and other rigging are not considered cranes and governed by OSHA crane standards (OSHA 1970), a review of these procedures can help mitigate risks in complex tasks such as tandem lifts.

For more information and details on this accident see:

<http://bit.ly/safetywatch10>



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