

A twisting tree, a twist of fate

The company ran a generic safety program by the book, but sometimes, the book is not enough.

The crews held a safety meeting every Monday and informal tailgate talks every morning. The office manager had an OSHA 10-hour certification and was the designated safety officer. The employer had a generic OSHA safety manual, which was reviewed by all new employees. And the victim, a 28-year-old Hispanic male, had extensive experience and training on an excavator.

The job that day was to push down some large sweetgum trees as part of a site prep contract to build a golf course. The area around the trees was swampy and wet, as the designers of the golf course intended for this area to be a water feature. The victim started by digging a circle around the base of the tree to cut roots and loosen the dirt. The plan was to apply force with the excavator bucket to push the tree down.

Two dozer operators were working in the vicinity and did not see the accident, but one of them noticed the operator having trouble downing one tree and rocking it back and forth, trying to get it to fall. When he looked again, the excavator cab had collapsed under the weight of a 60-foot tree trunk, the structure of the machine partially submerged after it had been hammered into the boggy soil. Investigators estimated the tree weighed 1.34 tons.

The operators rushed to the victim and found him pinned inside the cab and not moving. One called 911, but neither could get to the victim because of the depth of the water. Rescue personnel had



Illustration by Don Lomax

to cut open the cab to remove the victim. He was pronounced dead at the scene from asphyxiation. In addition to the unstable ground conditions, investigators noted that a 20 mph wind at the time of the accident could have added to the instability of the tree.

How this accident could have been prevented

- Companies involved with tree felling operations should develop a specific felling plan in accordance with OSHA regulation 29 CFR 1910.266.
- Operators and supervisors should survey ground conditions prior to operations to ensure the soil is sufficient to support heavy machine operations.
- Operators and supervisors should note wind conditions and cease work if it is determined wind could alter the direction of the tree's fall.
- Whenever possible, use professional loggers to fell trees with chainsaws. The direction of the fall is much easier to control with a chainsaw making a notch and back cut.

- When digging around a tree, make the first dig in the direction you want the tree to fall. Subsequent digs should be with the boom and stick between the tree and the cab to protect the cab in case of a misdirected fall.
- Safety training and programs should always be specific to the job at hand each day and site specific, not just generic toolbox talks. Note that site-specific conditions may change from day to day depending on the weather and the activities of other contractors.
- When felling trees with an excavator, use a machine with an FOPS reinforced cab. OSHA does not require machines with 360-degree rotation to have ROPS or FOPS structures; therefore, the cabs are not as strong as they might seem. Had this cab been reinforced with an after-market FOPs structure (as is the case with forestry machines), it might have resisted the impact of the tree enough to save the victim's life.

For more information on this accident, see:

<http://bit.ly/treeincident>



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