

29 Fall from elevation ---Inspection #1328791 Duck River Electric

A **57 year old male** was fatally injured when he **fell** from a bucket truck that had caught on fire. The victim had received a work order to repair a security light and was conducting the work from a 2015 Ford F450 truck equipped with a Versalift VST-471 aerial boom lift attached. The security light was affixed at approximately 30' above ground in the east quadrant of a pole with a single phase 14.4 Kv energized electric line attached. During the investigation, there was no evidence to indicate that the victim had come into contact with the energized electrical line during the process of repairing the security light.

It appeared that the victim had removed the globe from the security light and possibly replaced the photo cell on top of the light fixture as well as the bulb prior to the bucket control panel catching fire. The victim attempted to move the bucket away from the pole and lower it so as to get out of the bucket safely. The bucket was lowered to a height of about 20' and to a position behind the truck. When the bucket got to this position, the fire is assumed to have burnt through the hydraulic lines that controlled its movement and rendered the controls at the bucket unusable. The employee then detached his lanyard from the anchor point and climbed out of the bucket and was reported to be hanging on the outside of the bucket before falling about 20' from the bucket to the ground.

It was determined that the company owned two trucks with this type of Versalift VST-471 aerial boom; the truck which the victim was operating, referred to as Truck 23 and a truck that was operated out of the Chapel Hill location, referred to as Truck 106. Approximately 6 months prior to this accident, a fire had occurred in Truck 106. This truck had been having several hydraulic fluid leaks in the TruGuard control block area. The TruGuard is a system on the bucket to help insulate it. The area had a manifold type device inside the controls where the hydraulic hoses attached with threaded fittings. It was reported that the O-rings at these fittings would leak every couple of weeks. Truck 23 was having the same type issues but apparently not at the frequency of truck 106.

After the fire damage was discovered and reported on truck 106, Versalift was contacted and a replacement part for the TruGuard system was ordered for truck 106. This replacement part allowed the hydraulic lines to pass straight through the area without threaded fittings. The employer reported that since the new part has been installed the leaks have stopped.

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No replacement part had been ordered or installed on truck 23; therefore, it is assumed that the TruGuard control block on Truck 23 had another hydraulic leak which caught fire causing the victim to lower the bucket as far as he could then try to get out and in the process fell to his death.

Citation(s) as Originally Issued

A complete inspection was conducted at the accident scene. Some of the items cited may not directly relate to the fatality.

Citation 1 Item 1

Type of Violation: Serious

\$5400

TCA 50-3-105(1): The employer did not furnish employment and a place of employment which were free from recognized hazards that were causing or likely to cause death or serious physical harm to employees:

In that employees were exposed to a fire hazard due to hydraulic leaks that occurred in the TruGuard control block system design on the following two Versa Lift model VST-471 trucks:

- a) Truck #23
- b) Truck #106

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Victim was in bucket and had the boom raised while working on security light. After bucket caught on fire he lowered boom and moved it away from the power lines. The photo shows the location of the bucket when the employee climbed out and subsequently fell to the ground due to it being on fire.

