A 49 year old male employee working as a wire technician fell approximately 19' from a ladder while attempting to install fiberoptic cable to a private residence. This employer installs telecommunication equipment to residential and commercial facilities.

It was learned that the victim was tasked with replacing a copper service drop line with a fiber optic drop line at a private residence which involved using a ladder to access the service box on a telephone pole and connecting the drop line to the customer's home.

It was further learned that a midspan was being performed by the victim. Typically, the drop line would connect directly from the company service box at the telephone pole, however a midspan was needed due to a tree that was located between the home and the service box. When a midspan is required, the employee will need to access a point in between the two telephone poles where the drop line will separate from the strand before going to the home; the drop line must run along the telecommunications strand before the drop line is redirected from the strand to the customer's home. The location where the midspan separated from the strand was directly above the roadway.

An extension ladder is used to access the strand. Before using a ladder on the strand, technicians are to test the strength of the strand using a rope referred to as a handline. The handline is passed over the strand then the technician would test the strength of the strand with their body weight. The victim had leaned the ladder onto the strand and had the hooks at the top of the ladder around the Comcast service line. The ladder was positioned facing the opposite side of the street and the extension ladder was set up in the roadway to access the strand. The copper line the victim was to remove had not been disconnected when he climbed the ladder.

It is believed that when the victim climbed the ladder, his weight caused the strand to flex in the direction he was facing. The flex in the strand added tension to the copper line that was still attached to the home which caused the line to rip from the home. The strand and the copper line are two different lines attached at the midspan allowing the copper line to deviate from the strand's direction. The ladder was leaned onto the strand where the copper line was run parallel with the stand. The strand then flexed more with the weight of the victim. When the strand flexed to its farthest point, the strand was pushed back in the opposite direction throwing the employee from the ladder to the ground. The victim was found unconscious on the ground and transported to the hospital where he eventually succumbed to his injuries

## 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.

## <u>Citation 1 Item 1</u> Type of Violation: Serious \$5,000

29 CFR 1910.23(c)(4): The employer did not ensure that ladders that are used only on stable and level surfaces unless they are secured or stabilized to prevent accidental displacement:

In that an employee was using a fiberglass extension ladder that was not secured or stabilized to prevent accidental displacement when leaned against a telecommunications strand.

## Citation 1 Item 2 Type of Violation: Serious \$2,800

29 CFR 1910.268(d)(l): Before work was begun in the vicinity of vehicular or pedestrian traffic which could endanger employees, warning signs, flags, barriers, and/or other traffic control devices were not placed conspicuously to alert and channel approaching traffic:

In that an employee was working on a public street, on a ladder installing a fiber optic drop line, with no form of warnings or traffic control devices to alert approaching traffic.

## Citation 1 Item 3 Type of Violation: Serious \$3,200

29 CFR 1910.268(n)(5)(ii): The following method or an equivalent method was not used for testing the strength of the strand: A rope, at least three-eighths inch in diameter, shall be thrown over the strand. On joint lines, the rope shall be passed over the strand using tree pruner handles or a wire raising tool. If two employees are present, both shall grip the double rope and slowly transfer their entire weight to the rope and attempt to raise themselves off the ground. If only one employee is present, one end of the rope which has been passed over the strand shall be tied to the bumper of the truck, or other equally secure anchorage. The employee then shall grasp the other end of the rope and attempt to raise himself off the ground:

In that the telecommunications strand's strength had not been tested prior to the employee accessing the strand with an extension ladder.

Fall from ladder--Insp # 1525984 AT & T Tennessee





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