Electrical Safety – Know the Ground Rules Fatality File



Young Worker Electrocuted on Ladder

At approximately 12:00 p.m., the 16-year-old victim gathered a model D1828-2EQ Werner aluminum extension ladder and moved to the front of the house to begin work there while three other workers moved on to the side of the house. At the front of the house, there were two 4 ft. x 4 ft. boxwood bushes planted 3 feet from the home's exterior wall at the point where the victim was attempting to access the roof.

There were no witnesses, but it is believed that because of the bushes, the victim was having trouble accessing the roof. With the ladder still fully extended, the victim attempted to move it closer by lifting the ladder and walking between the bushes to find a suitable base. The ladder became unstable, causing the victim to lose his balance falling backwards.

As the victim and ladder were falling, the ladder fell into a top phase power line carrying 7.2 kilovolts (7,200 volts). Because the victim was still in contact with the highly conductive aluminum ladder when it struck the power line, electricity was able to travel through the metal and into the young worker. He was immediately electrocuted.

After hearing a noise from the front of the home, the owner of the subcontracting company went to investigate and found the victim lying unresponsive on the ground. He immediately knocked on the home's front door and frantically tried to communicate to the wife what had happened and asked for help. The homeowner called 911 at 12:15 p.m. When EMS arrived eight minutes later, they observed the victim lying on the ground facing upwards. Both of the worker's boots had burn holes near the fifth toe; burn marks were also present on the stomach area. He was pronounced dead by the county coroner minutes later with electrocution as the cause of death.

In an interview with the county sheriff's office with the help of a translator, the coworkers stated that they were on the side of the home and did not observe this incident. The owner of the subcontracting company acknowledged that he had instructed the victim to move to the front of the house to continue work there. Both coworkers were aware that the victim was putting up a ladder to access the front roof and that the victim had not asked for assistance.

The victim was moving a model D1828-2EQ Werner aluminum extension ladder that weighed approximately 56 lbs. When collapsed, the ladder was 14 feet tall and had a maximum

open extended length of 25 feet. At the time of the incident, the victim, who measured 5’10” tall and weighed 165 lbs., was moving the ladder, which was extended to the maximum length of 25 ft. As the ladder became unstable and began to fall, the victim may have been unable to support the ladder’s top-heavy design while standing on uneven terrain, which allowed it to contact the power line.

In instances where an extension ladder needs to be relocated, employees should lower the extended portion of the ladder until it is appropriately collapsed, carefully lay the ladder down, and transport it horizontally while grasping the ladder’s middle section with both hands in order to safety manage its weight. Once the ladder is placed in the necessary area, ensure the base is secure and re-extend the ladder to the appropriate height. Had the ladder been lowered and transported horizontally, the high voltage line could have been avoided including the death of this keys old.