Utility Worker Electrocuted During Excavation Near Home



If only Tim had realized he was seconds away from death while watching his co-worker excavate a trench with a backhoe; he would have run away as far as possible. But he had no warning that the machine would sever an underground transmission line and send a fatal surge of electricity through his body.

The 28-year-old utility worker was holding a metal valve key when he was electrocuted near a suburban home. The electrical current actually traveled from the 4,100- volt line, through standing water, to a copper pipe, to an underground valve and then up the metal key Tim was holding.

The Investigation

Investigators learned that Tim and his crew were assigned by a supervisor to search for a water leak near a home. They did not request a “markout” of underground utilities prior to the excavation because they were only going to dig with shovels, not heavy equipment.

At one point the supervisor left the worksite and the crew began digging by hand. They soon realized that the water was coming from under a sidewalk. One worker got a backhoe and began lifting the concrete sections and laying them on the side of the road. After that, he continued to excavate the area under the sidewalk.

The fatality report stated that Tim was standing near the backhoe while holding a six-foot metal valve key, which was used to turn the water on and off. The backhoe struck and severed an electrical transmission line, 48 inches below ground. Tim was electrocuted, but the backhoe operator escaped injury. A medical examiner reported that Tim died from cardiac arrest.

SAFETY RECOMMENDATIONS

The following recommendations were made after Tim’s death:

- Employers should always call for utility company markouts before excavating near underground utility lines.
- Employers should ensure that heavy equipment operators are properly trained before using machinery.

- Employers should ensure that employees are properly supervised.
- Employers should ensure that workers use non-conductive tools when excavating near utility lines.