FLASH

May 2025

Flash 25-11-FL
Supersedes 22-23-FL

Installation of communication wiring around electrical equipment

The Electrical Safety Authority (ESA) has noticed incidents involving communication installers drilling into, or making contact with, electrical wiring, while drilling through building walls.

The intent of this flash notice is to highlight the risks associated with accidently drilling into electrical wiring and raise awareness in order to reduce and eliminate these types of incidents. ESA requests the assistance of all companies engaged in the installation of communication cables to reinforce the importance of measuring inside and outside of structures, prior to drilling holes, to ensure the area is clear of electrical equipment. Drilling into electrical conduits and cables poses a significant shock hazard to the worker. As many communication installations are located in close proximity to electrical service equipment, drilling into a service cable has the potential to ignite a structure fire.

The following pictures demonstrate the type and severity of these incidents.

Photo F1

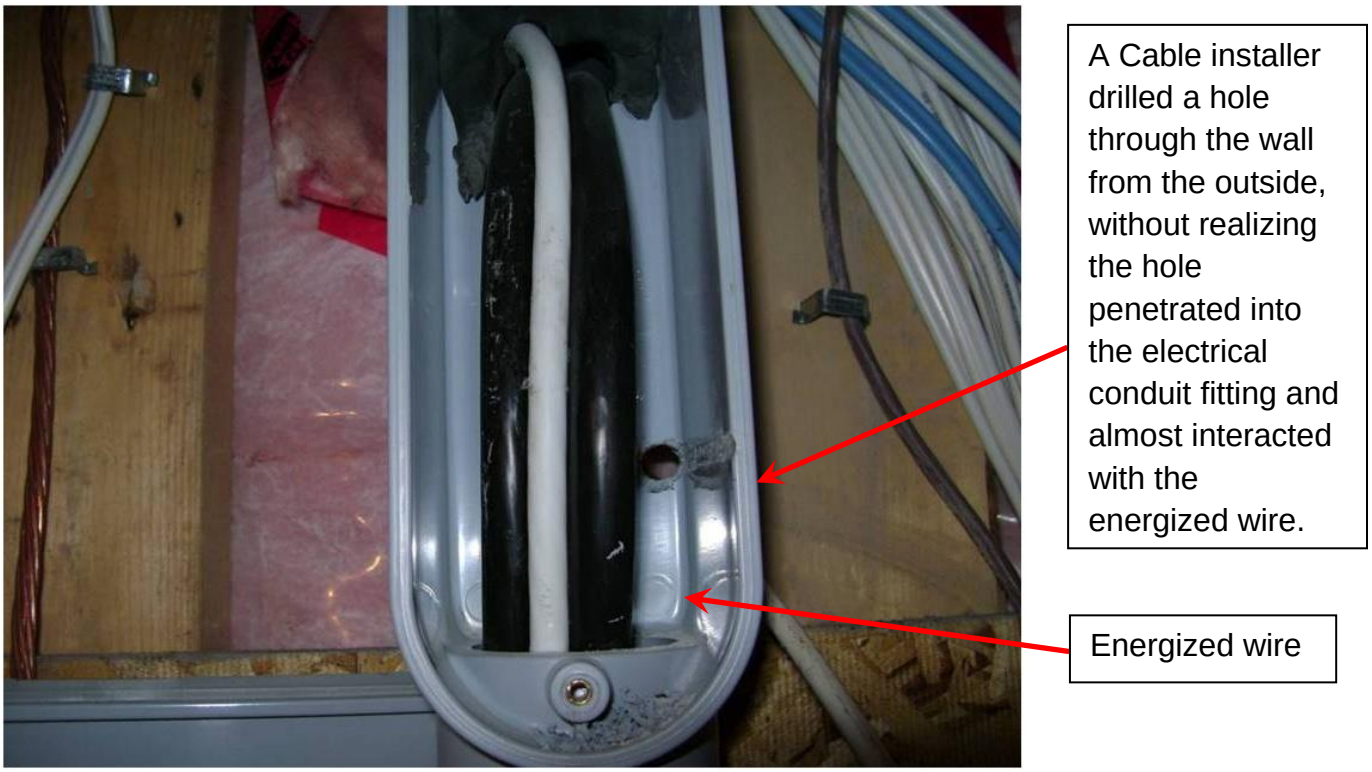
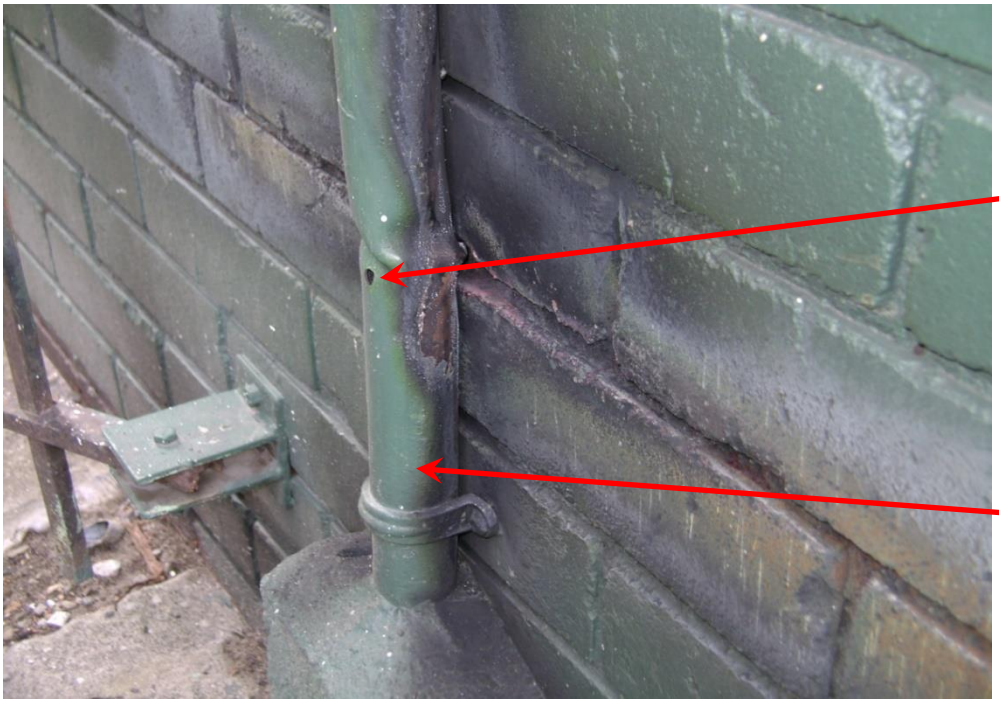


Photo F2



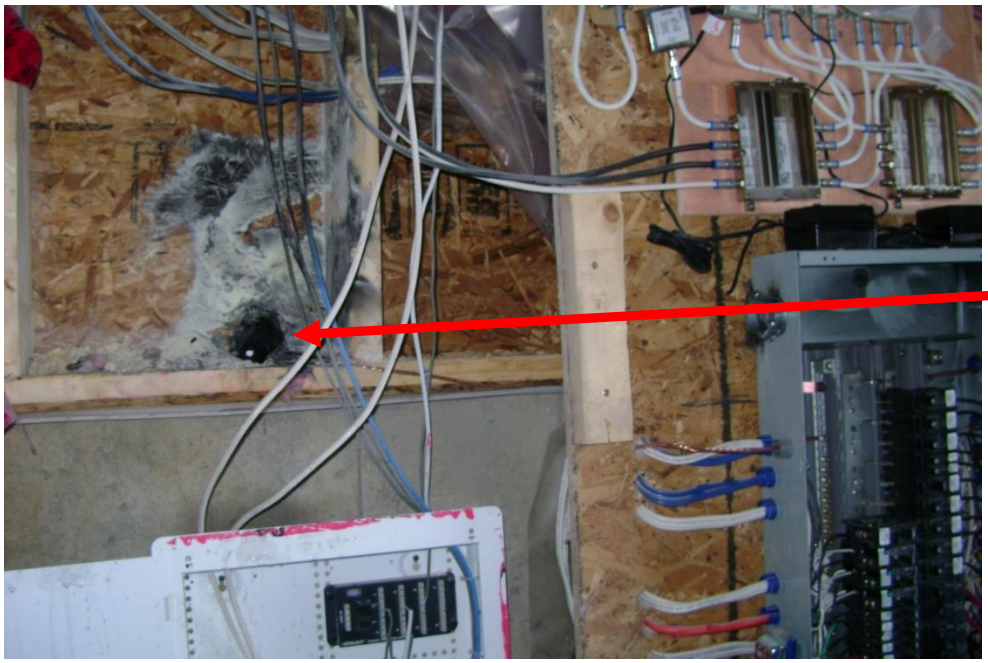
Cable installer drilled a hole from the inside to the outside of a building for a telephone cable and hit the service conduit, causing a significant arc flash.

The service conduit contained a 600 V energized cable.

Photo F3

The arc flash went up the conduit and exited at the top of the mast. The arc flash also entered into the building and burnt out the service switch and meter base.

Photo F4



Cable installer drilled through the clay brick of the house beside the service entrance, using a hammer drill. As the drill penetrated the brick it also penetrated the TECK cable. An electric arc started and caused a fire.

The root cause of these incidents is failure to ensure the area is clear and safe for drilling. These incidents could have been avoided by measuring the inside and outside of the structure where the intended hole is to be located for cable routing.

These incidents did not need to happen! Proper job planning, safety training and ongoing safety awareness would go a long way to eliminating these hazardous incidents.