Laborer Electrocuted When Jackhammer Strikes Underground Power Line

Industry: Site preparation contractors
Task: Jackhammering concrete duct bank
Occupation: Laborer
Type of Incident: Electrocution

SHARP Report No.: 71-136-2015s
On August 20, 2014, a 38-year-old laborer was electrocuted when the jackhammer he was using struck an underground power line.

The incident happened at a hospital parking lot where his employer was a subcontractor hired to install a storm water drainage system. His employer was a site preparation contractor. The victim was an experienced laborer and a member of the Laborers’ International Union of North America. His job duties for this project included digging trenches and laying and connecting storm drain pipe.

On the day of the incident, the victim and two other employees were digging trenches and installing storm drains. At the location they were working there was a buried duct bank which was in the way and conflicted with the plans for installing the storm drain. This duct bank contained three lines of PVC electrical conduit piping encased in concrete. Each line of conduit piping contained four power line cables carrying 7,200 volts each. In order to install the storm drain pipes to the necessary grade, the employees were using an excavator, breaker bar, and a rivet-buster-type jackhammer to chip away at the duct bank concrete. The victim was in the trench chipping the duct bank’s concrete when his rivet buster punctured the conduit and contacted the power line cable. He was electrocuted and died at the scene.
Incident scene showing the trench in which the laborer was jackhammering the concrete encasement of the duct bank. The “x” indicates the approximate position of the laborer when his jackhammer struck the 7,200 volt power line cable.
Incident scene where the laborer struck the 7,200 volt power line cable (circled) with his jackhammer as he was chipping away at the concrete encasement of the duct bank.
Requirement

• In work areas where the exact location of underground electric power lines is unknown, no activity which may bring employees into contact with those power lines shall begin until the power lines have been positively and unmistakably de-energized and grounded.

See [WAC 296-155-428(1)(c)](wac296-155-428-1-1-1).
Recommendations

• Determine the exact locations of buried power lines before beginning work.
• Always assume that power lines are energized unless you have confirmation from the power line owner or utility company that the lines have been de-energized and grounded.
• Do not perform work that may expose employees to contact with energized power lines.
• General contractors and subcontractors should plan before the start of a project and coordinate during the project on a site safety plan that identifies and addresses hazards to employees.
This bulletin was developed to alert employers and employees of a tragic loss of life of a worker in Washington State and is based on preliminary data ONLY and does not represent final determinations regarding the nature of the incident or conclusions regarding the cause of the fatality.

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