

POTELCO

ACCIDENT

January 9, 2008

Investigated and Reported by
Jeff Baker
IBEW Local 77 Accident Investigator

On January 9, 2008 an accident occurred with a Line Crew Foreman. An electrical flash to the left hand and face of the Journeyman Lineman happened while ringing out the primary cables (circuit 24) at the Prine sub-station in Tumwater, Washington.

The Potelco Crew was intercepting two sets of getaway cables on Prine circuits 23 and 24.

The job consisted of setting two (2) temporary poles, setting a splice vault, rerouting one (1) set of 750 mcm cables and splicing them in the vault and pulling the new cables to the temporary pole. The circuits 23 and 24 were to be cut and sealed in the vault.

On January 4, 2008 the Friday before the start of the job, there was a tailboard discussion between the Puget Sound Energy Journeyman Wireman, the Potelco General Foreman and the Journeyman Line Crew Foreman. They discussed tying the two (2) other circuits together and also grounding Prine Station 23 and 24 circuits that Potelco would be starting on Monday, January 7, 2008. It was understood that Potelco would not be in the substation if Puget Sound Energy was not available to assist.

On Monday the 7th, the Potelco Crew had a tailboard with the Puget Sound Energy Crew. The switching orders were to tie a couple different circuits together to transfer the load. That order was changed by the Systems Operator because the Day Operator found a better way.

The Puget Sound Energy Journeyman Wireman and the Potelco Foreman took clearances on circuits 23 and 24. Prior to this, circuit 24 had a System Operator's tag that was not legible. The System Operator terminated that tag; the Puget Sound Energy Crew identified, isolated, tested and grounded the circuit. The Potelco Crew did the same at the getaway pole.

After taking the clearance the Potelco Foreman asked the Puget Sound Energy Crew to remove the grounds at circuit 24 and place them on circuit 23. The Puget Sound Energy Crew did other maintenance work at the Prine substation during the next couple of days.

Potelco Line and Dirt Crews had to intercept the getaway cable mid-run, cut windows in the six (6) inch PVC pipe and by pulling on the system neutral they were able to identify the circuits being worked on and marked the inside of the vault where it was to enter. While on the system neutral they spiked all cables in the conduit and pulled what they needed for vault entry and then cut primary wires to length. They removed excess wires and conduit to dig and set the vault and replumb.

The next day, Tuesday the 8th; the Line Crew set two (2) poles and transferred the overhead primary wires. The Dirt Crew trenched to the new getaway pole and installed six (6) inch conduit.

Wednesday, the day of the accident; the Crew pulled in new 750 mcm and 4/0 neutral to the new pole and tied it off at the pole. They were racking the vault knowing they could not splice until they rang out the feeder cable from the switch gear inside the substation. At approximately 2:30 p.m. the Puget Sound Energy Journeyman Wireman and his Helper arrived.

The Line Crew Foreman asked them to assist him inside the substation to ring out the feeder cable. The Journeyman Wireman made some phone calls and said yes, he could help. The Line Crew Foreman had a brief tailboard with his Crew to plan the ringing out of the cables on the two (2) circuits.

The Potelco Foreman and the Puget Sound Energy Wireman removed the grounds on circuit 23 with a shotgun that the Helper got out along with a high voltage tester. By using one of the grounds that was already hooked up to the system neutral at bay 23, the Foreman was able to ring out all three (3) feeder cables. The Puget Sound Energy Wireman Foreman and Helper started work on the job they came to do.

The Foreman asked the Puget Sound Energy Foreman to open access to circuit 24; the Puget Sound Energy Wireman Foreman opened circuit 22 instead.

The Foreman removed grounding caps with a shotgun and began ringing out the cables. Because of the short leads on the phone he was using he used the ground that was hooked to circuit 23 as one of the leads. With the phone in his left hand and the other lead in his right he went to go on a primary cable which turned out to be energized. The phone lead that was hooked to the ground made contact with an energized portion of the circuit 22 cabinet, resulting in a large blast up the phone to the Foreman's left hand and face. He was blown back approximately ten (10) feet with bad burns on his left hand and face, but is healing well. No entry or exit wounds were found. The Wireman also had flash burns he was treated at the hospital and released.

Recommendations:

- Mark cabinet with circuit numbers on the outside at beginning of job.
- Identify, isolate, test and ground any cables prior to work.

JB/br
opeiu8 afl-cio