

POTELCO, INC.

ACCIDENT

MARCH 28, 2011

Investigated and Reported by
Rick W. Strait
IBEW Local 77 Business Representative

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On March 28, 2011 a 2nd Step Apprentice Lineman received an electrical shock when he came in contact with a de-energized line, in an energized corridor, which had been lowered to the ground for hardware removal on the Baker-Sedro Woolley #2 115 KV transmission line rebuild/reconductor job from Concrete, WA to the Sedro Woolley substation.

A pre job conference was held, all crews of the project were included. Clearance points were addressed. General Foreman and Safety Coordinators were introduced. No cowboy mentality was stressed on the job site. Everyone was instructed to follow all safety rules. The scope of work, hazards of working in an energized corridor (inductance concerns), on site grounding, crew makeup and environmental requirements were reviewed.

The Potelco, Inc. line crew consisted of five workers - one Foreman, one Journeyman Lineman, one 4th Step Apprentice Lineman, one 2nd Step Apprentice Lineman and one Equipment Operator.

This was the first day of the project, which consisted of 23 miles of pole and conductor replacement. The site where the accident occurred was at pole 10/2. The crew set up 1 pole east to install a set of grounds. This was a newly formed crew with equipment and vehicles no one had previously worked on. They located 3 grounds long enough to attach a screw ground to the conductor. No hot phase tool was found at this time so they would test the wire by fusing with a ferrous piece of metal (large duck-billed clamp in a shotgun). The 2 Journeyman Linemen went up in the bucket truck, tested and installed the first ground wire. They called for the 2nd wire. The Equipment Operator picked up the ground wire and was bit. The 2 Apprentices (both on the ground) noticed the ground clamps were smoking and reported this information to the Foreman in the bucket. He told the Equipment Operator to put on his rubber gloves and send the ground wire up. This procedure was followed for the 3rd and final ground wire.

The crew relocated 1 span west to start work. The Journeyman Lineman and 4th Step Apprentice went up in the bucket. The Equipment Operator was going to operate the center mount boom truck from the turret chair. The plan was to install a cluster mount bracket to one pole and attach a ground wire from the cluster to the conductor. That plan was aborted when the only grounds that remained on the truck were too short. The work continued without work site grounds installed. The wire was to be lowered to the ground with the line truck, to remove the armor rod and shoes. They then would remove the H structure assembly, replace with new poles and materials, hang travelers, and place the old wire back into the travelers so they could pull the new wire in with the old.

The crew went about the work of lowering the wire. The 1st and 2nd phases were down and floating approximately 10 feet off the ground. The bucket crew was working on the 3rd phase while the Foreman attempted to throw a set of service rope blocks with a steel hook on one end, over the wire hanging nearest the bucket truck, which was setting parallel to the line. He attempted 3 times to hook the wire so he could lower it down to work on, but was unsuccessful. The Foreman turned his attention to the aerial work and walked away from the wire. The 2nd Step Apprentice then climbed onto the bucket truck bed, reached out, grabbed the wire and became hung up on the conductor. The Foreman heard him, saw what happened and ran back over to the truck. He grabbed the Apprentice, knocking him loose of the wire and onto the ground. The Foreman yelled at all crew members to stop work and help. All members came to the accident scene.

The Equipment Operator called 911. The Foreman and Lineman did an assessment of the 2nd Step Apprentice. He was responding somewhat, breathing, but obviously struggling in his actions. The Foreman said he would go out to the road to meet rescue crews. The rest of the crew would remain with the Apprentice to render first aid. After leaving the site, the Foreman realized he had a defibrillator (A.E.D.) on his truck and decided to return to the scene in the event that it was needed. Upon approaching, he saw the Journeyman and 4th Step Apprentice administering CPR to the injured Apprentice. The A.E.D. was deployed. After it analyzed the victim and reported irregular heart rhythm ~~no heart activity~~^{**}, it announced to stand clear. A charge was administered. The Apprentice responded favorably. The 4th Step Apprentice was then sent to meet the rescue crew as the remaining crew members stayed with the injured, followed instructions from the 911 operator and were successful in their first aid efforts.

The Apprentice was transported to the Skagit County Hospital, stabilized and then airlifted to Harborview in Seattle, WA. The Apprentice was placed in an induced coma where he remained for approximately 2-1/2 days. Once he was removed from the coma, he recovered to the point of being discharged on Wednesday, April 6, 2011. He is currently recovering at home where he has been instructed not to work for 6 months to continue evaluation of his recovery.

Conclusions: Proper grounding procedure for on site grounding needs to be thoroughly discussed and trained for in pre job conference. Company shall issue all required materials to accomplish the task. The remaining 5 crews on the job were required to stop work until such time all would be retrained in company policy of equal potential grounding and bonding work zone safety.

** From all reports during the investigation there was no heart activity.