

Near-Miss - Non-QEW disconnects live 120 VAC wires from terminals

From Mark Scott:

Dear QEWs,

(Electrical Safety Advocates, EHS Liaisons, Health & Safety Reps and Division Safety Coordinators are copied)

We had a very close call on Friday, September 22, when a non-QEW disconnected live 120 VAC wires without any electrical PPE. He did not get shocked. I cannot stress just how lucky we are that we did not lose a colleague. This really bothers me and I know several of our ALS management and QEW folks are pretty upset/distraught over this.

Incident Summary:

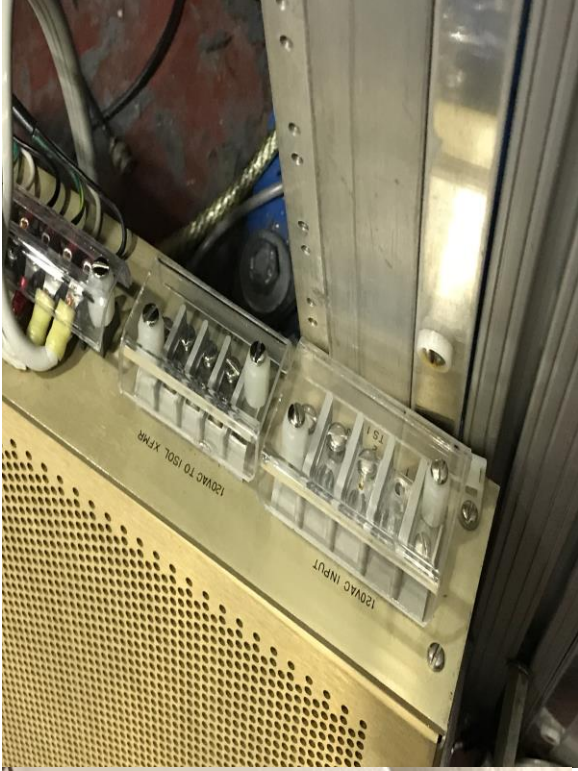
At the ALS beamline 7.3.1, a user (non-QEW) was assigned to perform demolition work on some electrical equipment under a platform. He removed the rack-mounted chassis and proceeded to disconnect the power wires from the back side terminals. He was wearing rubber-coated work gloves and carefully taped up the exposed wire ends before setting them on the floor. When he then moved to the next rack over, he noticed a "DANGER - HIGH VOLTAGE" sign, then stopped and requested assistance from electronics maintenance QEWs. While inspecting the electrical enclosure, the QEWs found the cables that had been disconnected from the chassis and traced the cables back to a 120 VAC circuit breaker in a panel. The breaker was in the closed position. Use of a proximity type detector indicated that the cable was energized. The QEW's stopped work in the area and admin locked out the wires. As it turned out, the non-QEW had unwired the 120 VAC power supply that fed the isolation transformer to the high voltage rack.

Obviously, this incident points to some serious failures in work management/control as well as hazard recognition. An in-depth investigation will be conducted within ALS. Further, we have now had 3 separate incidents related to non-QEW's and demolition work in the last 2-3 weeks. The other two were the BNC connector shock in ALS and the capacitor work in B58. This has me very concerned and we will be taking additional steps to further understand our programmatic weaknesses, including non-QEW hazard recognition.

ACTION: In the meantime, I ask that QEWs help out in the following ways:

- Do what you can to ensure electrical hazards are clearly identified, and hold points are identified in job briefings. Non-QEWs do not have your ability to recognize electrical hazards. Don't assume that they will stop when they see a black/white/green wire combination.
- For demolition work: assume everything is still energized until you have ZVV'd every possible exposure. Just because it has not been used in 10 years does not mean there can't be a sneak interlock circuit or a hidden convenience outlet that is still hot.
- When you build equipment: LABEL, LABEL, LABEL!!! Label it like YOUR KID will be the one assigned to demo it some day. We train non-QEW's to look for shock hazard labels, not wire colors or plain text writing. Contact Ohmar for proper shock hazard labels.







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