

SAFETY BULLETIN

To: ALL FLEET PERSONNEL

Date: 08/15/2012

From: PSL LJSAC

Subject: SIGNIFICANT ARC FLASH EVENT

Two electricians working on a 480 motor Control Center 2AB (MCC) were involved in a significant arc flash event. One worker suffered serious burns to the left side of the face and ear.



Several sobering thoughts for the Fleet: Had the circumstances of the event been different, this worker could have **lost his life**. The worker could have **lost his hearing**. Without safety glasses, this worker **would be blind**...permanently. Without gloves, he would have definitely have received burns but also could have **lost fingers**. This also could have **injured several other workers** in the immediate vicinity.

As you can see above, he was wearing this hardhat. Make a difference today in the work you do and the co-workers you observe.

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NARRATIVE OF THE EVENT

In the early morning of August 15th, late in the shift, a crew prepared to deploy to conduct a breaker removal from the 2AB MCC. The workers reviewed their work package in the shop and proceeded to circle the work steps that they were going to perform when they were in the field. The workers also performed a live dead live check with their voltage meter in the shop prior to going to the field and then turned the meter off.

Once the workers were in the field they set up their arc flash boundary (7ft) and donned the required arc flash PPE Level 2 and proceeded to commence work supported by the foreman who was reading the work instructions to them. The workers opened the 480 MCC door to inspect the breaker and to perform their live dead live checks. The workers turned on the voltage meter and performed a live dead check and **did not perform** the meter validation of the last live check. They did not receive any indication that there was voltage present which was **unexpected** based on their brief. **Peer-checking was not performed** during the live dead live checks. The workers then removed their face shields prior to restarting their work. The workers assumed that the MCC was energized based on the work package and pre-job brief. Based on the live dead check results, they discussed this discrepancy with their supervisor and then continued working believing that the breaker was actually not energized. When another tool was needed, the foreman turned over the work package to the field engineer in the area and the crew continued with the work. **There was not discussion during this turnover as to what step in the work order they were on.** At this time the field engineer was distracted by other activities in the area and placed the work package on the ground outside of the arc flash boundary.

The workers proceeded to determine the load side of the breaker per the work package and then proceeded to determine the line side of the breaker. The breaker was supposed to be disconnected from the stabs after the load side was terminated and prior to the line side being terminated per the work instructions. **However, the work package was on the floor outside of arc flash boundary and not being followed.** The workers proceeded to lift the leads associated with the line side and an inadvertent contact and subsequent arc occurred. The worker was taken to a local hospital and later airlifted to a burn center near Miami.

EVENT INSIGHTS/ACTIONS

- Arc-flash PPE usage must be adhered to. Think twice before justifying its removal
- Follow Electrical Arc Flash Personal Protective Equipment and Protection Boundary Matrices and procedures while working at our sites.
- Rigorous performance of live-dead-live checks will prevent events almost exclusively.
- Procedure placekeeping must be properly implemented deliberately.
- Reader-Doer performance during procedure use requires the doer to read concurrently with the reader.

LEADERSHIP INSIGHTS

Reinforce to your workforce that you must always stop when unsure, when things are not as expected or as briefed and then demonstrate this through a thorough follow-through on questions.

Place-keeping is not an option but until it is consistently reinforced and modeled, then it will continue to plague our sites.

Meaningful interactions in the field are key to doing your part in preventing an event like this.