

**EFCOG Electrical Safety Subgroup  
Teleconference Meeting Minutes  
November 14, 2008**

Submitted by Jackie McAlhaney

**Attendees**

James Durnan	Jerald Kinz	James Follansbee
Jeff Jensen	Jackie McAlhaney	Mark McNellis
Lloyd Gordon	Call Haller	Gary Dreifuerst
Keith Knotts	Pat Zona	Pat Tran, DOE-HQ
Greg Christensen	Jim Luhring	Bill Lowry
David Inskeep	John Dinicola	Todd Kujawa
Earnest Hamm	Cliff Ashley	Randy Unger
Don Harvey, DOE-HQ	Dave Mills	Heath Garrison
Max Wright	Barry Osborne	

**Introduction and Discussion of Recent Events**

Lloyd Gordon kicked off the meeting and welcomed everyone. Lloyd asked the group if anyone had any recent events to discuss.

Todd Kujawa discussed an event at Jefferson Lab where technician was troubleshooting while using a voltage converter as the power supply for the circuit being tested. While performing a measurement with a meter, a spark was noticed. A 120 volt cord was identified where the neutral and hot leads were reverse-wired. Todd emphasized that the cord had been repaired earlier but not inspected for correct polarity of the wiring.

Mark McNellis stated that Sandia had experienced a similar event on a battery charger where the polarity was incorrect.

Bill Lowry discussed an event at NETL where a contractor crew performing a partial facility demolition was removing a wooden exhaust duct located directly below a metal electrical raceway as part of the beryllium cleanup project. The crew used a saws-all fitted with a 4 inch torch blade to remove the wooden duct when a spark was noticed. The work crew then immediately stopped work to determine the source of the spark. Upon inspection, it was determined that the contractor had cut through a de-energized electrical line located inside the metal raceway that was now exposed by an unexpected opening in the raceway. Further investigation revealed that there was also a second energized 480 volt circuit inside the raceway. Due to the presence of these unexpected openings, the contractors could have easily contacted the energized 480 volt circuit had the contractors not stopped working when they did.

Cliff Ashley discussed an event at WCH where a lighting circuit was severed while excavating. The circuit was switched "off" when it was severed since the event occurred during the daylight hours. However, the circuit was not locked out since it was not recognized during the job planning. Cliff indicated that the investigation will determine why the ground survey did not locate the circuit.

## **Webinar- Electrical Safety in Federal Facilities**

Lloyd discussed a webinar scheduled for Wednesday November 19 at 12:00 mountain time that he will co-present along with a representative from Schneider Electric. The first half of the webinar will be presented by Schneider and focus on arc flash hazards in general. Lloyd will present the second half of the webinar and discuss the EFCOG/DOE electrical safety initiatives. Lloyd indicated that over 1100 people have registered to date. He encouraged everyone to register and participate in this webinar. The registration information was transmitted to the team in an earlier email.

## **Summary of Fall Meeting**

Lloyd summarized the fall meeting in Las Vegas. He indicated that much time was devoted to reviewing comments for the DOE Electrical Safety Handbook revision. Lloyd said that the Handbook is scheduled to be delivered to DOE by November 15 but he was still waiting on a review of some of the graphics. He said he will continue to update Pat Tran daily on the status of the Handbook.

Jackie McAlhaney discussed the election of new officers for 2009. Lloyd said that even though the officers for the upcoming year will be the same individuals as this past year, we need to get more people involved in the future. He indicated that we need to formalize team leads for some of our initiatives as a method to involve more folks. The 2009 officers will be as follows:

Mark McNellis	Chairman
Jackie McAlhaney	Vice Chairman
Dave Mills	Secretary
Bobby Gray	Officer at large
Chair Emeritus	Lloyd Gordon

Mark McNellis mentioned that we should consider extending officer terms rather than holding an election annually. Jackie suggested that we review the current charter and draft a revision to facilitate an improved process for officer election and terms.

Mark McNellis then reviewed the 2009 initiatives that was developed at the fall meeting and presented to the ESH group. The 2009 action plan consists of the following:

- Deliverables
  - DOE Electrical Safety Handbook Publication (Lead: Lloyd Gordon and Bobby Gray)
  - Publish a Best Practice on Arc Flash Calculations (Lead: Jackie McAlhaney)
  - Spring Meeting (with IEEE) - February 2009 (Lead: Mark McNellis)
  - Fall Workshop - October 2009 (Lead: Bobby Gray)
  - Publish Best Practice for CFR851 issues (Lead: Bryan Drennan)

- Develop model for subsurface investigation program (Lead: Dave Inskeep)
- Refine tools for use of Severity Ranking Tool (Lead: Tommy Martinez)
- Continuing Projects
  - Maintain and add to Center of Excellence website (Lead: Lloyd Gordon)
  - Develop Interactions with other EFCOG groups (Lead: Mark McNellis)
  - Continue DC subcommittee (Lead: Keith Gershon)
  - Monthly telephone conferences (Lead: Officers)
- New Projects
  - NFPA standards - promote more membership and proposals from DOE sites (All)
  - Partner with Army Corps of Engineers on “Arc Flash Hazard Guidance” document (Lead: Jackie McAlhaney)
  - Publish arc flash training modules (Lead: Mark McNellis)
  - Develop process to manage future DOE Electrical Safety Handbook (Lead: Bobby Gray)
  - Work with EFCOG Occupational Medicine to develop position for AED use at sites (Lead: Greg Christensen)
  - Update ISA 102 standards committee and initiate 1 - 2 new standards (Lead: Lloyd Gordon)

Greg Christensen mentioned that he was working on a policy for AED's and requested input from others. Discussion focused on security concerns with AED's inside security areas since they can record audio but no one knew if they are limited from these areas.

### **Spring Meeting Plans**

Mark McNellis discussed plans for our Spring Meeting in St. Louis in conjunction with the IEEE Electrical Safety Workshop on February 2-6, 2009. He encouraged everyone to register for the workshop early and said he thought the IEEE website is currently open for registration. Jackie McAlhaney stated that he had received confirmation from the IEEE workshop team that a room will be provided for our meeting on Monday February 1 and Tuesday morning.

### **Fall Workshop Meeting in Hanford**

The 2009 workshop team is continuing to plan for the fall meeting in Hanford in October. Bobby Gray is leading this team but was not available to provide a status.

### **General Discussion**

John Dinicola discussed NFPA 70E Article 130.3 that allows the arc flash hazard analysis to be exempted if the circuit is 240 volts or less and circuit is fed by a single transformer less than 125kVA. John specifically wanted to know if this article is saying

“no arc flash” hazard exists. Mark McNellis stated that he believes the article means there is no exposure greater than 1.2 calories when these conditions exist. Jackie McAlhaney and Greg Christensen agreed that they interpret the requirement the same. John suggested that the committee develop a white paper to clarify this question. Dave Mills was assigned lead to develop this paper and publish on Center of Excellence website.

Toddy Kujawa asked if we should be adopting the 2008 NEC and 2009 NFPA 70E based on CFR 851 requirement to comply with the 2005 and 2004 versions respectively. Lloyd responded that we should adopt the latest codes since we are improving safety through use of these.

Greg Christensen mentioned that he was interested in hosting a future EFCOG meeting in Idaho and asked if anyone had volunteered to host the 2009 spring meeting. Mark said that the group may want to continue to meet in the spring along with the IEEE workshop. Jackie McAlhaney responded that Greg should consider hosting the 2011 Fall Workshop. He said that the 2010 fall workshop is tentatively planned for Oak Ridge.

The meeting was adjourned at 1200 Eastern Time.