

26 JULY 2017

# ALL HANDS MEETING



**STEPHEN STREIFFER**  
**DIRECTOR, ADVANCED PHOTON SOURCE**  
**ASSOCIATE LABORATORY DIRECTOR, PHOTON SCIENCES**

# AGENDA

- Safety
  - Unexpected Capacitor Discharge, July 18, 2017
  - Battery Shock Event, July 25, 2017

# UNEXPECTED CAPACITOR DISCHARGE, RESULTING IN INJURY, TUESDAY JULY 18, 2017

- Two ASD staff members were working in the Bldg. 420 HV test cage #3, checking out 15.25 kilojoule capacitors (305uF/10kV each) for a beamline pulsed magnet power supply project.
- When one of the employees was placing a safety ground onto a capacitor that was believed to be in a safe state, a capacitor short circuit flash occurred.
- Both employees were taken to area hospitals as a result of the incident.
- One individual received burns to the left hand
- Injuries were not serious
- Both individuals have returned to work

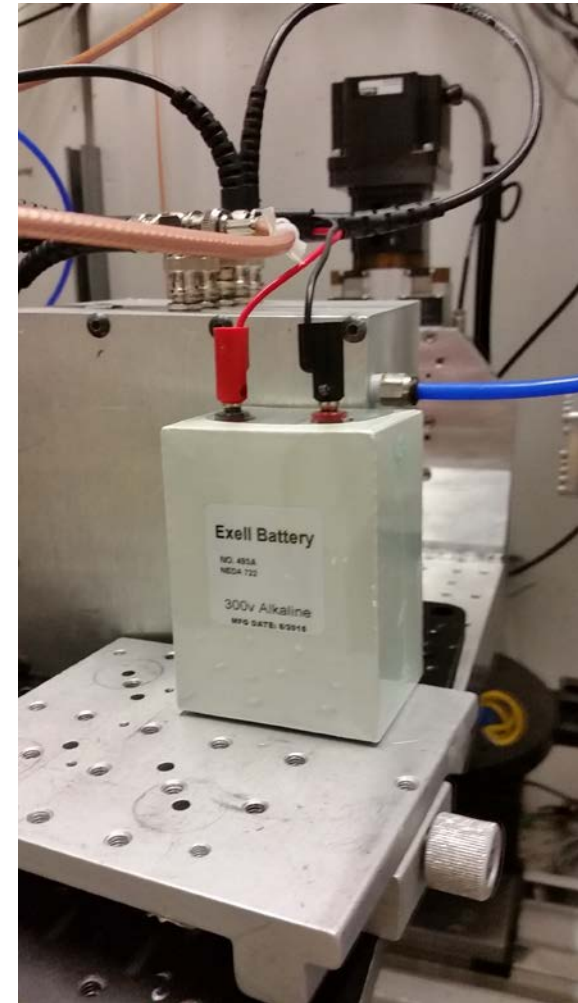


# UNEXPECTED CAPACITOR DISCHARGE, RESULTING IN INJURY

- Formal incident investigation is underway to determine cause and corrective actions
- Electrical hazards are one of the biggest dangers we face on a routine basis here at the APS
- This incident illustrates the very real consequences that can result from release of stored electrical energy
- Opportunity to reflect on actions you can take to perform your work safely, and on the ways we can improve what we do here at APS

# SHOCK FROM BIAS BATTERY

- As part of trouble shooting a Lytle detector (ion chamber system for XAFS), the 300 VDC battery was tested to ensure it had charge
- When the banana plugs were being removed the user simultaneously contacted both leads and received a shock
- 911 was called and the student was treated and released at a local hospital
- Student was released with no injuries or restrictions last night



# CURRENT STATUS AND NEXT STEPS - LAB

- The Lab has paused all electrical work on site until further notice
  - Two incidents in the last week and fifth in the last seven months
- The Lab is developing a recovery plan to resume electrical work once we can be assured that proper controls are in place to protect the Laboratory's employees
- Incident response team is meeting daily to develop the plan. We will update you as we know more.
- The Laboratory will conduct a safety stand-down for employees and managers to come together to discuss these recent incidents and the application of Integrated Safety Management in their work areas. This includes resident users.
- More details on the expectations and timing for the stand-down will be forthcoming shortly.

# CURRENT STATUS AND NEXT STEPS - APS

- The two events in the past week have exposed serious failures in work planning and control approval, authorization, and working within defined scope
- I have suspended APS work (except office work) and user operations until we have executed a recovery plan that ensures we can work safely
- Our recovery plan will be defined in the context of the Lab's plan. Note that regardless of APS recovery plan, electrical work is still paused by the Lab.
- George Srajer has outlined a recovery plan for user operations at today's incident response meeting
- More details on the restart of APS work outside of user operations will be provided as soon as possible

# CURRENT STATUS AND NEXT STEPS - APS

- Expected actions to restart APS work outside of user operations
  - All areas to be walked down by the occupants to inspect electrical items such as extension cords, power strips, battery charges, portable electric equipment for condition, application, storage and use
  - Distribute electrical Lessons Learned as required reading to the relevant group leaders and request feedback on topics of concern by both group leaders and their subordinates
  - Review the use of the work planning and control system and work authorization to refine the current systems for non-routine activities
  - Update all hazard analyses that are in the WCD system now, to back up the procedures that are being used



# SAFETY IS EVERYONE'S RESPONSIBILITY

- You are responsible for your safety and that of your co-workers
- Supervisory personnel have special, additional responsibilities for the safety of their staff
  - You must know what your staff are doing, and authorize work before it proceeds
- Do not work without approval and authorization
- Work within scope
  - Stop and obtain guidance if the work evolves or you hit a scope boundary. The work will need new planning and controls, approval, and authorization.
- Pay special attention to controlling stored energy

# NEW SAFETY MANAGER



- Paul Rossi Appointed new PSC Health, Safety, and Environment Deployed Safety Manager
  - Replaces Tom Barkalow
  - Previously supported X-ray Science Division as the ESH/QA coordinator.
  - Start date was July 7
  - Bldg. 401 office in ALD suite

**QUESTIONS?**