

Accelerator Safety Workshop

Argonne National Laboratory

Aug. 7-9, 2007

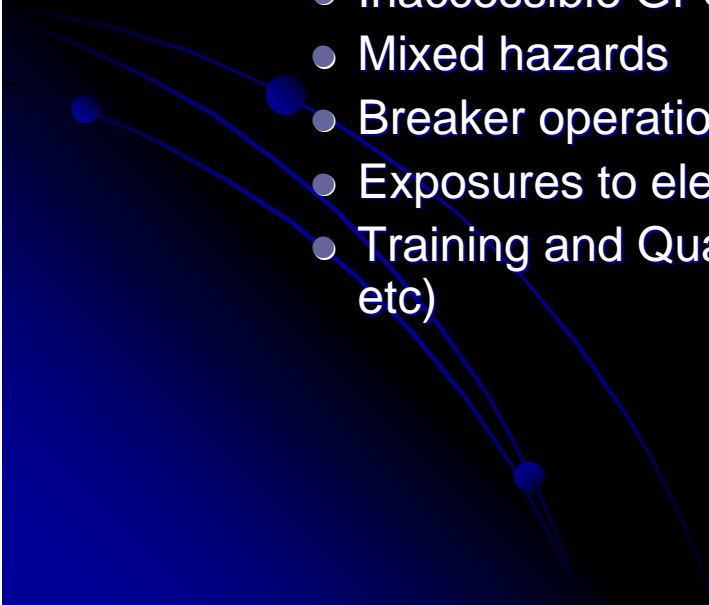
Electrical Safety Breakout




Electrical Safety Breakout

- How to address the challenge presented by 10CFR851 – Requirement to establish an Electrical Safety Program that adequately addresses the particular electrical safety issues for accelerator facilities.
- As we just heard, existing codes don't anticipate or provide guidance for the hazards that exist at accelerator facilities
 - Need to further the development of a common framework for standards and procedures addressing the electrical hazards at accelerator facilities
 - Need to address conflicting requirements arising from non-electrical hazards (e.g. radiation hazards)
 - Need to develop common training requirements to facilitate collaborative efforts between accelerator facilities (e.g. types of workers and levels of training)

Electrical Safety Breakout Results

- Issues –
 - R&D experts from fields other than accelerators are developing DOE guidance documents on electrical safety, accelerator facilities need to participate in that process to ensure these documents adequately address the needs and capabilities of accelerator operations
 - Accelerator Operational Issues that need to be addressed
 - Inaccessible GFCI's
 - Mixed hazards
 - Breaker operation
 - Exposures to electrical hazards (shock, arc flash)
 - Training and Qualifications (what is needed by operators, users, etc)
- 

Electrical Safety Breakout Results

- Accelerator Operational Issues continued –
 - Energized Work
 - Electrical Equipment Approvals (for non-listed equipment)
 - Interlocks
 - Fire safety (exits/protection)
 - LOTO and Verification
 - Electrical equipment systems approvals
- 

Electrical Safety Breakout Results

- Recommendations –

- Better tie in to the DOE Electrical Safety Handbook in the guidance document for 420.2B. For example, promote the Electrical Safety Handbook as the guidance document for applying codes, standards, and best practices to the special situations and equipment found in accelerator facilities
 - New version of handbook includes guidance for inspection and approval of non-listed electrical equipment
 - New version of handbook includes guidance for assessing electrical hazards and choosing appropriate work methods and training requirements
 - Together with the Center for Excellence in Electrical Safety, provides consistency across the DOE complex.
- New chapter in the DOE Electrical Safety Handbook addressing operations issues at accelerator facilities