

Working Hot Update

Presentation at APS/User Monthly Meeting

19th January 2005

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*A U.S. Department of Energy
Office of Science Laboratory
Operated by The University of Chicago*



ANL position on working hot *(consistent with NFPA-70E)*

- **“Working hot” is defined as working on or near exposed energized (or potentially energized) parts above 50v.**
- **Working hot is not allowed except when it can be shown that:**
 - De-energizing introduces additional or increased risk, or
 - It is fundamentally infeasible to do the work de-energized.
- **Criteria for performing working hot that can be justified:**
 - An approved working hot permit or approved procedures that describes hazards, appropriate safe work practices, and PPE.
 - Workers must be “Qualified” (Trained & knowledgeable).

“Qualified” workers (Trained + knowledgeable)

- **JHQ must reflect the need to work hot:**
 - P6: Electrical exposure, electrical hot work
 - P7: Lockout / Tagout
- **Training classes triggered by P6 & P7 questions:**
 - Electrical Safety Training (ESH-371 + ESH-375 currently)
 - Lockout / Tagout training (ESH-114)
 - CPR (ESH-109)
- **Persons doing the work must have appropriate knowledge of the equipment and the task.**

Electrical safety training options

- **What we have available now: ESH-375 (the 8hr class)**
 - Currently the only option for meeting training requirements.
 - Covers general electrical safety (shock hazards and arc-flash hazards), but biased towards electrical distribution work.
 - APS and ANL are looking for “better” options, but they are not available yet.

- **Direction the Lab is heading**
 - Basic electrical safety training for all resident personnel (“GERT-E”).
 - “Good/appropriate” electrical safety training for electrical workers.
 - Group/area-specific electrical safety awareness orientation.

Working Hot permits

- **ANL does allow ‘standing’ working hot permits and procedures for specific activities and specific “Qualified” people.**
- **Eg, standing working hot permits exist for PS and RF Group personnel to work on their equipment.**
- **Standing working hot permits will usually be reviewed by the APS Electrical Safety Committee (Chair: Boris Deriy, ASD)**
- **Work-in-progress with Bio-CARS to get a standing working hot permit for laser power supply troubleshooting.**