

ELECTRICAL SAFETY AND ARC FLASH PROTECTION*

R. Camp

Princeton Plasma Physics Laboratory, P.O. Box 451, Princeton, NJ 08543

rcamp@pppl.gov

Over the past four years, the Electrical Safety Program at the Princeton Plasma Physics Laboratory (PPPL) has evolved in addressing changing regulatory requirements and lessons learned from accident events, particularly in regards to arc flash hazards and implementing NFPA 70E requirements. This presentation will discuss PPPL's approaches to the areas of electrical hazards evaluation, both shock and arc flash; engineered solutions for hazards mitigation such as remote racking of medium voltage breakers, operational changes for hazards avoidance, targeted personnel training and hazard appropriate personal protective equipment. Practical solutions for nominal voltage identification and zero voltage checks for lockout/tagout will also be covered. Finally, we will review the value of a comprehensive electrical drawing program, employee attitudes expressed as a personal safety work ethic, integrated safety management, and sustained management support for continuous safety improvement.

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