
National Collaborations in Electrical Safety

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Major Players in Electrical Safety

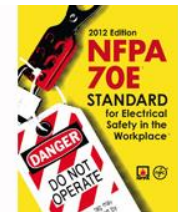
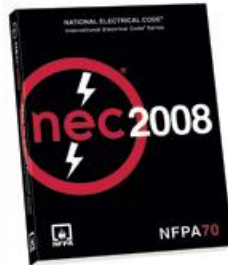
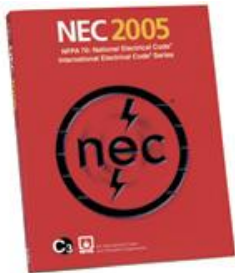
- Federal Government
- Codes and standards
- IEEE Industrial Applications Society
- Department of Energy (EFCOG, DOE handbook)
- Department of Defense

Government and National Codes and Standards for Electrical Safety

- OSHA - Title 29, Parts CFR 1910 and 1926
- NEC - National Electrical Code (2014/2017)
- NFPA 70E - Standard for Electrical Safety in the Workplace (2015)
- DOE Electrical Safety Handbook (2004) – 2013
- ASTM, ANSI, and IEEE Standards
- NRTL Standards (e.g., UL)

National Electrical Standards

- OSHA - Code of Federal Regulations
- NEC (National Electrical Code)
Standard for the safe installation of electrical wiring & equipment
- NFPA (National Fire Protection Association) 70E, Standard for Electrical Safety in the Workplace



IEEE Activities



**ELECTRICAL
SAFETY
WORKSHOP**

- Industrial Applications Society (IAS)
 - Chemical and Petroleum Industries
 - Electrical Safety Workshop (ESW)
 - Electrical Safety Committee
- **Scope:** The Electrical Safety Committee (ESC) is responsible for all matters within the scope of the IAS in which the emphasis or dominant factor specifically relates to occupational hazards of electrical energy. Topics include, but are not limited to: hazard phenomena, inherently safer design, work practices, hazard mitigation and electrical safety management.
- **Objectives:** to advance the state of the art in methods and technologies that contribute toward prevention of occupational electrical incidents and injuries; and to promote and support electrical safety activities in IAS committees, technical activities and IAS chapter activities.

EFCOG contributions to IEEE ESW

- About 6 papers (hazard classification, risk assessment, power)
- 3 tutorials – DC, Arc flash
- Serving on ESW subcommittees
- Around 30 attendees for the past 6 years
 - Jan - March
- 2013 – Dallas
- 2014 – San Diego
- 2015 – Louisville
- 2016 – Jacksonville
- 2017 – Ft. Worth

IEEE IAS ESC ESW subcommittee

- Government, Regulator, Inspectors & Laboratory
- Academic
- Occupational Safety and Health
- Codes and Standards Development
- Industry Segment
- International

Government, Regulator, Inspectors & Laboratory

- Chairs – Lloyd Gordon, Rene (Texas Instruments), working with
 - DOE laboratories
 - DOD laboratories
 - Inspectors, various types
 - OSHA
- Primary goal – sharing best practices, training, etc.

DoE and DoD

- Collaborating with Army Research Lab (ARL) for 8 years
- 2017 – Navy now beginning to review and incorporate DOE material
- Headed towards a services wide electrical safety program, led by ARL

Universities

- DOE Electrical Safety material has influenced over 20 universities, through
 - Funding oversight
 - Extension services
 - Students and faculty