EFCOG Best Practice #239

Title: Adoption of NFPA 70E® 2021 in place of NFPA 70E® 2018

Facility: DOE Complex

Points of Contact:

John (Jackie) McAlhaney, Past Chair EFCOG Electrical Safety Task Group (ESTG), Savannah River Nuclear Solutions, LLC., jackie.mcalhaney@srs.gov, 803-557-9002

Brief Description of Best Practice: NFPA 70E® - 2021 is recommended for adoption across the DOE Complex as an upgrade to NFPA 70E® - 2018 in 10 CFR 851 Worker Safety and Health Plans (WSHP). Previously, EFCOG Best Practice #206 determined that the use of the 2018 edition of NFPA 70E® is at least as protective as the 2015 edition, and even more protective in some areas, such that the new edition should be considered for DOE Complex wide acceptance.

Why the Best Practice was used: 10 CFR 851 lists safety and health consensus standards with which the contractor must comply when applicable with site hazards (851.23). Only the versions of consensus standards that were in effect on February 9, 2006 and subsequent technical amendments were promulgated pursuant to rulemaking therefore only those specifically cited versions are required by the Rule. Contractors may include successor versions of the consensus standards that provide equal or greater worker protection if included in their DOE-approved worker safety and health program.

What are the benefits of the Best Practice: The use of the 2021 edition of NFPA 70E® is at least as protective as the 2018 edition, and even more protective in some areas, such that the new edition should be considered for adoption within the DOE Complex. NFPA 70E® – 2021 is recommended for implementation across the DOE Complex as an upgrade to NFPA 70E® – 2018.

What problems/issues were associated with the Best Practice: No problems were noted with the Best Practice. Adoption of the 2021 Edition of NFPA 70E® by a contractor provides a level of protection "As Safe or Safer" than the 2018 Edition.

How the success of the Best Practice was measured:

A detailed gap analysis of NFPA 70E® version 2021 (Attachment 1) against the 2018 version was performed. Success will be measured by use of this Best Practice into each site's implementation of this NFPA standard.

Description of process experience using the Best Practice: This Best Practice can be used by a contractor at a DOE site as justification for adopting the 2021 revision of the NFPA 70E® standard for implementation.

EFCOG Working Group Members Participating on Best Practice Review Team:

John (Jackie) McAlhaney, Past Chair ESTG, SRNS (Team Leader)
Heath Garrison, Past Chair ESTG and NFPA 70E® Committee Member, NREL
Richard Walters, Past Chair ESTG, INL
Lloyd Gordon, Past Chair ESTG, LANL
Dave Mertz, Chair ESTG, FERMI