

REVIEW / COMMENT DOCUMENTATION

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Phone:

Document #, Rev: SAND2018-0706 O, DRAFT 0002

Discipline/Department: First Energy Corporation

Date: 4/3/2018

Title: Aluminum High Energy Arc Fault (HEAF) Particle Size Characterization Test Plan - DRAFT

Comments shall be:

* CLEARLY STATED AS A MATTER OF FACT (OR A SPECIFIC QUESTION)
* LEGIBLE AND REPRODUCIBLE

* COMPLETE AND INCLUDE A REFERENCE TO THE AFFECTED DOCUMENT
* FOCUSED TO A SPECIFIC PROBLEM OR DEFICIENCY

Comment No.	Document Number Section / Paragraph	Review Comments (Print)/Basis for Comment	Comment Disposition / Resolution	Change to Document
1	General	Based upon known evidence of fault evolution that involves different combinations of faulted phases, it is proposed that test sequence objectives be reviewed in the context of ultimately applying the results, or findings, to help identify what steps the industry should pursue that would improve methods to limit the energy of the postulated HEAF at its origination.	The current phase of the research is to understand the hazard. The approach taken is based on the findings documented in NUREG-2218 and staff experience accessing this hazard. The testing will be conducted sequentially such as the small scale testing will inform the large scale testing and lessons learned will be incorporated through the test program to ensure quality results.	No change.
2	General	It is proposed that magnetic field monitoring instrumentation would thereby enable a more precise identification of specific switchgear design attributes that can be enhanced to address subsequent fault occurrences due to an originating HEAF.	The small scale testing does not involve switchgear. Therefore, the comment cannot be addressed in the small scale testing. This comment is better suited for a full scale testing program.	No change
3	General	That is, in the design of the HEAF test experimentation, it is desired that results afford more specific determination of the relationships between voltage level, insulation type, and construction where bus insulation may help extinguish or sustain an arc once established.	The comment is outside the scope of the small-scale test plan. The small scale test plan objective is to understand the HEAF particle characteristics to inform an energy balance model. The comment is related to application specific configurations with respect to arc extinguishment and sustainability. Neither of these comments are related to the objective of this work. This comment is better suited for a full scale testing program.	No change

