Open Phase Condition Guidance Document

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NRC / Industry Update Meeting
November 1, 2013 • Rockville, MD

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OPC Guidance Document

- **Overview**
  - This guidance document will reflect the ongoing research and investigation which are developed and will remain “a work in progress” to be utilized as an organization and documentation tool which reflects the ongoing research, investigation, and preliminary analysis approaches being developed by electrical analysis engineers and other industry experts.
- **Scope**
  - The industry goal is that an open phase condition will not prevent functioning of important to safety structures, systems, and components.
  - This guidance document addresses activities related to open phase analytical studies.

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- **Purpose**
  - This guidance document describes analytical tools and approaches used to evaluate the open phase condition.
    - The objective is for power plant licensees to demonstrate that important to safety systems and components remain available given an open phase condition or install plant modifications to detect and isolate from the open phase condition.
    - In addition NPGS Preferred Power Supply (PPS) transformer connection and designs are summarized for NPGS grouping potential.

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- **Analysis considerations**
  - Based on data gathered from NRC Bulletin submittals, a summary of transformer winding configuration, size, voltage rating, grounding configuration, and loading at full power was compiled.
  - Appendix B contains a summary table of this Plant Transformer Information
    - Identifying similar plant configurations
    - Identification of stations with similar designs.

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