FAQ Number 07-0035 **FAQ Revision** 0

FAQ Title Bus Duct Counting Guidance for High Energy Arching Faults

Plant: Harris Date: June 1, 2007

Contact: Dave Miskiewicz Phone: 919.546.7588

Email: David.Miskiewicz@pgnmail.com

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Purpose of FAQ:

Clarification/enhancement of Ignition Source counting guidance for High Energy Arcing Faults (HEAF) in NUREG/CR-6850, supporting NFPA-805 Fire PRA application.

Is this Interpretation of guidance? Yes / No

Proposed new guidance not in NEI 04-02? Yes / No

Details:

NEI 04-02 guidance needing interpretation (include section, paragraph, and line numbers as applicable):

New attachment on interpretation issues

Circumstances requiring guidance interpretation or new guidance:

Pilot discussions and benchmarking of NUREG/CR-6850 for Task 6, Fire Ignition Frequency, has shown inconsistency in the treatment of High Energy Arcing Faults (Bin 16). There is a need to resolve these issues to prevent future rework and to reduce burden associated with uncertainty treatment. This topic has impact on the NFPA-805 pilots, non-pilots and other users of NUREG/CR-6850.

The guidance provided in NUREG/CR-6850 for Task 6, Fire Ignition Frequency (Section 6.5.6, Bin 16), states:

> Bin 16 – High-Energy Arcing Faults (Plant-Wide Components): High-energy arcing faults are associated with switchgear and load centers. Switchyard transformers and isolation phase buses are not part of this bin. For this bin, similar to electrical cabinets, the vertical segments of the switchgear and load centers should be counted. Additionally, to cover potential explosive failure of oil filled transformers (those transformers that are associated with 4.16 or 6.9kV switchgear and lower voltage load centers) may be included in vertical segment counts of the switchgear.

The current guidance is silent regarding the treatment of bus duct. Preliminary discussions between the user community and the NUREG authors indicate that some specific guidance is needed to assure more consistent treatment of bus duct.

Detail contentious points if licensee and NRC have not reached consensus on the facts and circumstances:

Potentially relevant existing FAQ numbers:

This guidance is specific to the characterization of bus duct for Bin 16 HEAF determination. The characterization and counting of electrical cabinets for Bin 16 determination is addressed by FAQ 06-0017.

Response Section:

Proposed resolution of FAQ and the basis for the proposal:

Because bus duct terminates at electrical cabinets, the HEAF counted for the electrical cabinet would also include those bus duct events and no further counting is necessary.

Basis:

The response is consistent with the guidance currently provided in NUREG/CR-6850. Without additional guidance provided by the authors of NUREG/CR-6850, there is no basis for when or how to count bus duct.

If appropriate, provide proposed rewording of guidance for inclusion in the next Revision: