

## Vogle PEmails

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**From:** Hoellman, Jordan  
**Sent:** Monday, June 4, 2018 12:17 PM  
**To:** Vogtle PEmails  
**Subject:** Questions on Cable Separation and Fire Area ITAAC  
**Attachments:** Clarification Questions for Cable Separation and Fire Area ITAAC.docx

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**From:** Hoellman, Jordan  
**Sent:** Thursday, May 03, 2018 1:30 PM  
**To:** Stacy, Kara M. (KMSTACY@southernco.com) <KMSTACY@southernco.com>  
**Cc:** Kent, Lauren <Lauren.Kent@nrc.gov>  
**Subject:** FW: Questions on Cable Separation and Fire Area ITAAC

Hi Kara –

As discussed at the public meeting on April 19, 2018, please see the attached clarification questions regarding the cable separation and fire area ITAAC.

We would like to discuss these questions with SNC at a future public meeting. Please let us know when you can support this discussion.

If you have any questions, feel free to contact me.

Thank you,  
Jordan

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## **Clarification Questions for Cable Separation and Fire Area ITAAC ITAAC Index Nos. 789 through 811**

1. For ITAAC Index Nos 800, 801, and 802 – (a) Do these ITAAC address the raceway and their cables for the entirety of their routes including the cables in free air and inside of control panels, switchboards, and distribution panels? (b) How is the IEEE 384 discussion of cables in air (for instance, the IEEE 384 definition of raceway and cables open – open category) covered in these ITAAC? (c) Should IEEE 384 and the correct sections of UFSAR 8.3.1.3.4 and 8.3.2.4.2 be referenced in these UINs because the UINs presently lack detail about the physical arrangement of trays vertically and horizontally, the routing of cables in panels and switchboards, the routing of cables in conduits and trays, and the use of solid or enclosed trays. Section 5.1 of IEEE 384 provides separation criteria for cables and raceways.
2. For ITAAC Index Nos 803, 804, and 805 – (a) Are the barriers as defined in these ITAAC in agreement with the barrier as addressed in IEEE 384 when it discusses a raceway fully enclosed with the barrier around it or are they constructed differently and in different locations in regard to the raceways and cables? (b) Are the barriers as used in these ITAAC meant to be just between raceways or also between cables and should these UINs define that? (c) Should IEEE 384 and the correct section of the UFSAR be referenced in these UINs to provide access to information on how barriers are utilized, when and where they are used, about their composition, and the definition of enclosed trays which the references provide? Section 5.1.1.2.e of IEEE 384 provides a definition for enclosed trays, and Figures 5, 6, and 7 in IEEE 384 provide information on the use of barriers.
3. For ITAAC Index Nos 806, 807, and 808 – (a) What is the analysis utilized in these ITAAC meant to demonstrate – no potential degradation of cables in adjacent raceways due to the lack of the required separation distance? (b) Should IEEE 384 and the correct section of the UFSAR be referenced in their UINs so as to provide information on the purpose of the analysis, how the analysis is performed, when it is performed, and how to interpret the results of the analysis? For example, Section 5.6.2 of IEEE 384 provides the basis for analysis of circuits inside of switchboards.
4. For ITAAC Index Nos 809, 810, and 811 – (a) What must be done in the qualification of non-Class 1E cables to label them as associated circuits in the context of these ITAAC and should their UINs address that? IEEE 384 states that associated circuits must be qualified as Class 1E cables but do not have to address their functionality. Presently the UINs do not state anything about the qualification of the cables in order to classify them as Class 1E circuits. Section 4.5 of IEEE 384 discusses how associated circuits become associated circuits and their qualification means.
5. For ITAAC Index Nos 800, 803, 806, and 809 – The NRC preferably would like these ITAAC for this plant location to be submitted separately with one cover letter for each ITAAC and the enclosure being its UIN or ICN. This also applies for other plant locations. The reason is that VOICES, the ITAAC tool for implementation of the NRC's ITAAC verification process, can only accept one ITAAC per UIN or ICN, and this is also true for the document control process that enters each UIN or ICN into ADAMS. (a) Would it be possible to revise the introductory paragraphs of each respective UIN for a given plant location to state how the UINs for a given location relate to each other? This would also entail revising other paragraphs in the UINs

- that address those relationships and making each UIN or ICN submittal be individual for each ITAAC as stated above in opening sentence for this item 5. (b) Would it be feasible to write these UINs similar to example D2 of NEI 08-01 that includes more detail on raceway system layout design, the basis for installation of raceways and conduits, the inspection of cables and raceways before and after installation to verify separation distances, and the identification of any violations to separation distances after installation of cables and raceways? Example D2 is the NEI 08-01 example applicable to this ITAAC, and its content was agreed upon by both the NRC and industry.
6. For ITAAC Index Nos 803, 806, and 809 at one location – (a) Would it be possible to state in their UINs the hierarchical relationship between the parent ITAAC 800 and these alternatives so that the reader understands which alternative is used first, second, and third to satisfy the separation requirements not met for the parent ITAAC 800 for the specific routing situation? (b) If there is no hierarchical relationship between these ITAAC and the parent ITAAC 800, would it be possible for their UINs to state that for a given routing situation that the alternatives can be utilized in any order?
  7. For ITAAC Index Nos 797 and 798 – Would it be possible to address the reference to UFSAR 9.5.1.2.1.1 in their UINs and otherwise expand on the information provided to describe what fire barriers were verified and to what requirements.
  8. For ITAAC Index Nos 792, 793, and 794 we have accepted the UINs for these ITAAC. (a) Would it be feasible to have their ICNs be more similar to example D2 of NEI 08-01 and to reference UFSAR section 8.3.2.4.2 because more detail is provided on the routing of Class 1E cables in their respective divisional raceways than the UINs themselves?
  9. For ITAAC Index Nos 789, 790, and 791 we have accepted the UINs for these ITAAC. (a) Would it be feasible to have their ICNs reference UFSAR section 8.3.2.3 because more detail is provided on the color schemes for Class 1E cables and their raceways and the actual marking of them? Section 5.1.2 of IEEE 384 provides details on the identification of raceways and cables.