

## NRR-PMDAPEm Resource

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**From:** Feintuch, Karl  
**Sent:** Monday, October 08, 2012 10:05 PM  
**To:** 'Swenzinski, Laura'  
**Cc:** Feintuch, Karl  
**Subject:** ME6818 Duane Arnold NFPA-805 - Second audit visit questions [retrieved copy]  
**Attachments:** DAEC NFPA 805 Second Audit Report Questions.docx

Re: your enquiry today (10/8/2012) for a second copy of the message and ADAMS Accession Number for the RAI questions that you are currently processing.

The email message below appears to be the transmittal email that provided the copy of the RAI items that you are presently processing. While you are verifying the attachment. I will search for an ADAMS Accession Number corresponding to the message below.

Karl Feintuch  
301-415-3079

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**From:** Feintuch, Karl  
**Sent:** Monday, June 25, 2012 10:26 AM  
**To:** Swenzinski, Laura  
**Subject:** FW: ME6818 Duane Arnold NFPA-805 - Second audit visit questions

Attached is a set of questions associated with the second audit visit of DAEC on May 30-31, 2011. These items should correspond to the questions provided by Iqbal Naeem at the time of the visit.

Please document each item as part of your associated response. If you note any material discrepancy or need further clarification, please contact me.

When you have assigned reference numbers to the responses to be placed on the Portal and have dates established for those responses, please provide that information.

Karl Feintuch  
USNRC  
301-415-3079

**Hearing Identifier:** NRR\_PMDA  
**Email Number:** 503

**Mail Envelope Properties** (26E42474DB238C408C94990815A02F099910685CF4)

**Subject:** ME6818 Duane Arnold NFPA-805 - Second audit visit questions [retrieved copy]  
**Sent Date:** 10/8/2012 10:05:23 PM  
**Received Date:** 10/8/2012 10:05:24 PM  
**From:** Feintuch, Karl

**Created By:** Karl.Feintuch@nrc.gov

**Recipients:**  
"Feintuch, Karl" <Karl.Feintuch@nrc.gov>  
Tracking Status: None  
"Swenzinski, Laura" <Laura.Swenzinski@fpl.com>  
Tracking Status: None

**Post Office:** HQCLSTR01.nrc.gov

<b>Files</b>	<b>Size</b>	<b>Date &amp; Time</b>
MESSAGE	1205	10/8/2012 10:05:24 PM
DAEC NFPA 805 Second Audit Report Questions.docx	58510	

**Options**  
**Priority:** Standard  
**Return Notification:** No  
**Reply Requested:** No  
**Sensitivity:** Normal  
**Expiration Date:**  
**Recipients Received:**

**ME6818 Adoption of NFPA-805 by Duane Arnold Energy Center (DAEC)**

**Initial Questions Developed at Second Audit of DAEC**

**Conducted on May 30-31, 2012**

1. RAI No. 2 Response:

- a. A): Request that licensee notifies staff when remaining cables have been identified and analyzed. Licensee noted that the expected timeframe to complete data gathering and determine impact on PRA analysis is approximately the end of September 2012.
- b. C): During audit discussions, the staff understood that this statement meant that the increased heat release rate and fire propagation associated with thermoplastic cables did not result in the identification of any additional targets. Staff requests that licensee confirm that understanding at the conclusion of the RAI response.

2. RAI No. 4 Response:

- a. During the audit, staff discussed with the licensee the maximum panel dimension limit of applicability. It is understood that this maximum panel dimension can be exceeded up to a heat release rate of 783 kW without affecting the Generic Treatments assumptions. The clarification question is what if an ignition source located along a wall or in a corner exceeds these dimensions, and therefore the maximum HRR for which the Treatments are applicable? Staff requests that the licensee explain how this upper limit of applicability is not crossed for ignition sources located along a wall or in a corner.

3. RAI No. 5 Response:

- a. Some clarification is required in the definition of 'support role' and technical lead. Based on discussions at the audit, the staff understood that there were more required internal qualifications than what are discussed in this RAI response. Also, it is not clear how qualification for Peer Reviewers (NEI-07-12) translates to qualification for users. The staff requests that the licensee provide additional description to this RAI response.
- b. Some clarification is required to specifically describe the different processes and procedures that are used for this purpose. Based on the discussions at the audit, the staff understood there were more procedures in place than what was described in the RAI response. The staff requests that the licensee provide additional description to this RAI response.

- c. Some clarification is required to specifically identify any procedures used to integrate the process of communication between the PRA and fire modeling groups. The staff requests that the licensee provide additional description to this this RAI response.
4. Generic Treatments Review: It was discussed at the audit that when calculating the effect of secondary combustibles, presence of two cable trays placed side by side at a height of 1-ft. above the principal ignition source is assumed to ignite after 5 minutes. Licensee stated that this is likely a conservative approach and a similar overall result will be determined using the FLASH-CAT method. The staff requests the licensee provide additional supporting documentation to justify this statement. The staff requests that the licensee verify that the DAEC configuration is not affected by any non-conservatism in this approach.
5. Generic Treatments Review: It was discussed at the audit that it is assumed that the secondary combustibles in the cable trays do not affect the applied ZOI. According to NUREG-6850, Section R.4.2, fire will spread at an angle of 35 degrees (see Figure 1 below). It is not clear what happens to the area that is included in the 35 degree sector, but not included in the rectangular ZOI. The staff requests that the licensee provide additional justification for not using the method described in Section R.4.2 of NUREG 6850.

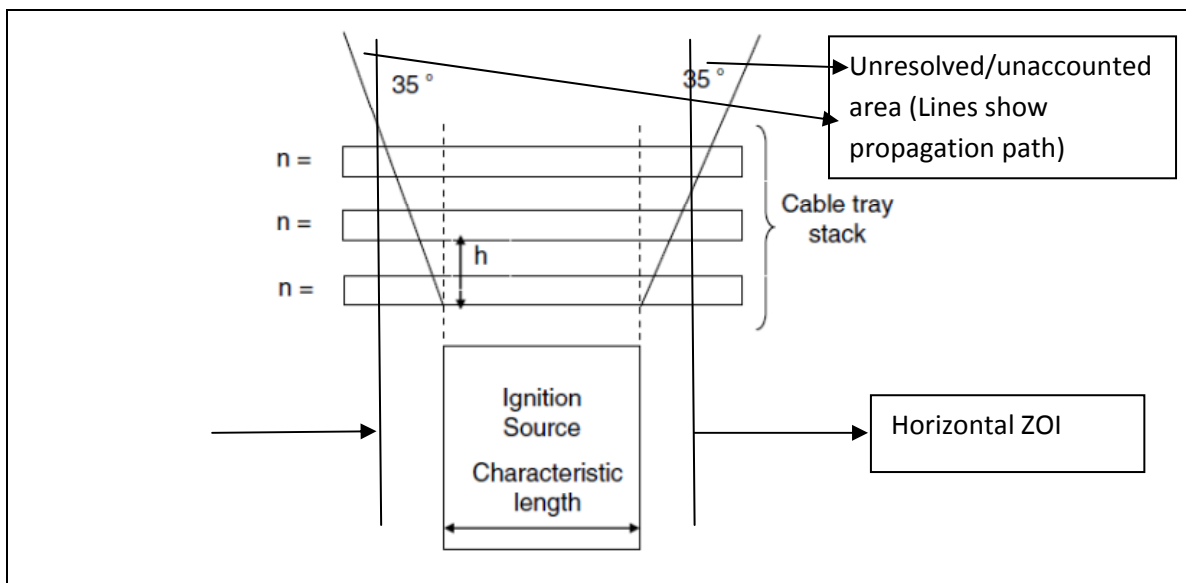


Figure 1. Model for Fire Propagation in a Cable Tray Stack  
(Figure R-5 from NUREG 6850)

6. Staff request licensee that the CFAST files be electronically provided for Bin 15 of each ignition source and each ventilation condition, including the sensitivity cases for wall/corner fires. During the audit, it was understood this would include approximately 54 input files.

7. Staff request licensee to provide drawings for fire zones 10E and 10F (fire areas CB2 and CB3) on the portal.
8. Staff request licensee to provide drawings for fire zones 3a and 3b (second floor of fire area RB3) on the portal.