

Brandon,

Attached is an advance e-copy of draft comments on FAQ 8 rev 3. This document will be a handout for the 4/26 public meeting. Please distribute it to the task force/writing group. This document is a summary of the comments Dan talked to you about last week.

Chuck

Charles Moulton  
Fire Protection Engineer  
NRR/DRA/AFP  
Phone: 415-2751  
Mailstop: O11A11

**Mail Envelope Properties** (46125258.482 : 12 : 9706)

**Subject:** NRC comments on FAQ 8 revision 3  
**Creation Date** 4/3/2007 9:10:48 AM  
**From:** Charles Moulton

**Created By:** CEM4@nrc.gov

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nrc.gov TWGWPO01.HQGWDO01 9:10:48 AM PWL CC (Paul Lain)	Delivered  Opened	4/3/2007  4/17/2007
nrc.gov TWGWPO04.HQGWDO01 9:10:50 AM SDW1 CC (Sunil Weerakkody)	Delivered	4/3/2007

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AFPB staff comments on FAQ 06-0008 Rev 3.pdf	53921	4/3/2007 9:03:36 AM

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**Priority:** Standard

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<b>Concealed Subject:</b>	No
<b>Security:</b>	Standard
<b>To Be Delivered:</b>	Immediate
<b>Status Tracking:</b>	Delivered & Opened

Attachment 1:

Dan's comments on Rev 3:

- Break down section 3.8 (similar to the way they itemized 3.11), since my reading of the chapter 4 exclusion to section 3.8 only applies to 3.8.2. I believe that the other sections of 3.8 fall under the NFPA code exclusion.
- 3.11.1 is not subject to the Chapter 4 exclusion.
- In the table on page 6, it states at the top of the first column 50.48(c) requirement, this should be 50.48(c).2.vii requirement.
- In the 1.205 table (on page 7), the statement, "once the process is added . . ." may be problematic. I don't see this as a show stopper, but the NRC staff needs to look into the implications of this not being complete. There is a cart before the horse issue here; which comes first: the RIS or the updated 04-02/RG 1.205? My thought is that we need to have the process attached to the FAQ so we can say that it is okay in the RIS. Process wise, you may not be able to have open ended statements in this type of document.
  - Suggestion: I think the answer to this question on 1.205 is that an alternative method will not be used. c.2.vii does not require an alternative method. So the open ended statement could be replaced with a statement like, "an alternative method is not proposed, the existing performance-based methods will be applied, but will be applied in a very limited fashion to (nfpa codes and listings)." Do you think that this will fly?
- The added tables were looked at pretty closely during an older revision, so assuming nothing has changed there, they should be okay.

Thanks you for capturing these comments. We will address these immediately.

Brandon

-----Original Message-----

From: Charles Moulton [<mailto:CEM4@nrc.gov>]  
Sent: Tuesday, April 03, 2007 9:11 AM  
To: JAMAR, Brandon  
Cc: Daniel Frumkin; Paul Lain; Sunil Weerakkody  
Subject: NRC comments on FAQ 8 revision 3

Brandon,

Attached is an advance e-copy of draft comments on FAQ 8 rev 3. This document will be a handout for the 4/26 public meeting. Please distribute it to the task force/writing group. This document is a summary of the comments Dan talked to you about last week.

Chuck

Charles Moulton  
Fire Protection Engineer  
NRR/DRA/AFP  
Phone: 415-2751  
Mailstop: O11A11

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**Creation Date** 4/3/2007 9:21:01 AM  
**From:** "JAMAR, Brandon" <btj@nei.org>

**Created By:** btj@nei.org

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PWL CC (Paul Lain)

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SDW1 CC (Sunil Weerakkody)

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**Junk Mail Handling Evaluation Results**

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**Junk Mail settings when this message was delivered**

Junk Mail handling disabled by User

Junk Mail handling disabled by Administrator  
Junk List is not enabled  
Junk Mail using personal address books is not enabled  
Block List is not enabled



Brandon,

Do you have an update on the status of FAQs 16 and 18?

We are still awaiting the final revision of these two. The writing team requested that we hold off closure until we received the final revisions, which would fully resolve the AFPB Staff's comments. Sunil is most interested in ensuring that our resolutions are final so they can be included in the RIS.

We expected to have the new revisions by now. Unfortunately, if we can't get the new revisions prior to the telecon, the schedule will force us to go with the closure memos as they exist.

Thanks,

Chuck

Charles Moulton  
Fire Protection Engineer  
NRR/DRA/AFPB  
Phone: 415-2751  
Mailstop: O11A11

**Mail Envelope Properties** (461CD8C4.1A9 : 12 : 9706)

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**Creation Date** 4/11/2007 8:47:00 AM  
**From:** Charles Moulton

**Created By:** CEM4@nrc.gov

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nrc.gov TWGWPO04.HQGWDO01 8:47:07 AM SDW1 CC (Sunil Weerakkody) 11:02:32 AM	Delivered  Opened	4/11/2007  4/11/2007
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<b>To Be Delivered:</b>	Immediate
<b>Status Tracking:</b>	Delivered & Opened

Please find revision 1 to FAQs 06-0016 & 06-0018 which are attached for submittal. Two versions of each are provided. One shows changes and one shows changes accepted.

If you have any questions regarding this transmittal please give me a call.

Thank you,

Brandon T. Jamar

Project Manager, Engineering

Nuclear Energy Institute

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Washington, DC 20006

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nuclear. clean air energy.

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**From:** "JAMAR, Brandon" <btj@nei.org>

**Created By:** btj@nei.org

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nrc.gov  
TWGWPO01.HQGWDO01  
CEM4 (Charles Moulton)

nrc.gov  
TWGWPO04.HQGWDO01  
SDW1 (Sunil Weerakkody)

**Post Office**

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**Junk Mail Handling Evaluation Results**

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This message was not classified as Junk Mail

**Junk Mail settings when this message was delivered**

Junk Mail handling disabled by User  
Junk Mail handling disabled by Administrator

Junk List is not enabled

Junk Mail using personal address books is not enabled

Block List is not enabled

Attachment 1:



Plant: Harris Nuclear Plant (HNP)      FAQ # 06-0016  
Submittal Date: 03-22-07  
Licensee Contact: David Miskiewicz      Tele/email 919-546-7588  
NRC Contact: \_\_\_\_\_      Tele/email \_\_\_\_\_

Distribution: Check all that apply (*NEI Internal Use*)

- FPWG  RIRWG  NSSS OG  NFPA 805 TF

**Subject:** Clarification/enhancement of Ignition Source counting guidance for Electrical Cabinets in NUREG/CR-6850, supporting NFPA-805 Fire PRA application.

**Interpretation of guidance?** Yes

**Proposed new guidance not in NEI 04-02?** Yes

**Details:**

**NEI 04-02 Guidance needing interpretation (include section, paragraph number, and line number):**

New attachment on interpretation issues

**Circumstances requiring guidance interpretation or new guidance:**

The guidance provided in NUREG/CR-6850 for Task 6, Fire Ignition Frequency (Section 6.5.6, Bin 15), states:

*Bin 15 – Electrical Cabinets (Plant-Wide Components):* Electrical cabinets represent such items as switchgears, motor control centers, DC distribution panels, relay cabinets, control and switch panels (excluding panels that are part of machinery), fire protection panels, etc. Electrical cabinets in a nuclear power plant vary significantly in size, configuration, and voltage. Size variation range from small-wall mounted units to large walk-through vertical control cabinets, which can be 20’ to 30’ long. The configuration can vary based on number of components that contribute to ignition, such as relays and circuit cards, and combustible loading, which also affects the fire frequency. Voltages in electrical cabinets vary from low voltage (120 V) panels to 6.9 kV switchgears. Even though it is expected that these features affect the likelihood of fire ignition, from a simple analysis of the event data involving the electrical cabinets, it was determined that the variation by cabinet type did not warrant separate frequency evaluation. Therefore, one fire frequency was estimated for the electrical cabinets.

This guidance infers that cabinet size is not a factor for ignition source counting. However, additional guidance states that electrical cabinets “... should be counted by their vertical segments ...”. During the presentation of Pilot Project results it was determined that differences related to the definition of ‘segments’ could result in notable inconsistency between individual users of NUREG/CR-6850.

The discussion of this issue found that this issue affects only general electrical cabinets and panels. In the case of switchgears, load centers, unit substations, and motor control centers the term 'segment' was uniformly interpreted to be equal to the individual vertical sections that define these types of components. As applied to general electrical cabinets and panels, the term 'segments' could be interpreted to mean different metrics.

- A segment could be defined as an enclosed element that is generally independent of size or volume (also referred to as a vertical section).
- A segment could be defined as an individual section of an enclosure regardless of whether it was fully enclosed.
- A segment could be defined based on a 'standard' or reference sample panel size.

Depending on the metric being used, the counting of electrical cabinets would result in varying results and consequently, different fire ignition frequency values. While NUREG/CR-6850 allows the establishment of plant specific criteria for counting of electrical cabinets, additional guidance is required to achieve a consistent basis for determining the ignition frequencies.

**Detail contentious points if licensee and NRC have not reached agreement**

This topic has impact on the NFPA-805 pilots, non-pilots and other users of NUREG/CR-6850.

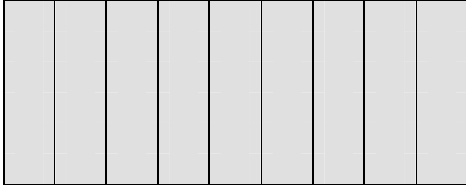
**Potentially relevant existing FAQ numbers:**

This guidance is specific to the characterization of electrical cabinets for Bin 15 ignition frequency determination. The characterization of switchgear and load center segments for the purposes of high energy arcing faults is addressed by FAQ 06-0017.

**Response Section**

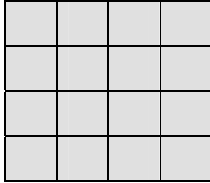
A generalized counting criterion for general electrical cabinets and panels is proposed. This proposed criterion would involve two elements.

For switchgears, load centers, unit substations, and motor control centers the counting for the purposes of NUREG/CR-6850, Task 6, Bin 15 would be based on vertical section. This counting is illustrated in the following examples.



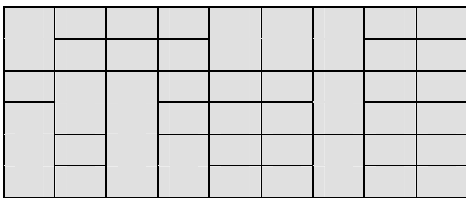
Medium Voltage Switchgear

9 Breakers and Sections  
Count = 9 for Bin 15



Load Center or Unit Substation

16 Breakers in 4 Sections  
Count = 4 for Bin 15



Motor Control Center

41 Breakers/Starters in 9 Sections  
Count = 9 for Bin 15

For general electrical cabinets and panels, counting is based on externally apparent vertical sections. No examination of the internal construction is required.

This proposed counting for electrical cabinets and panels is to be applied for a wide range of panel sizes. However, recognizing that the ignition frequency is more a function of the cabinet contents than the cabinet size, a basis is needed to address outlier conditions. It is proposed that each user be required to establish criteria for identifying the outliers and the basis for counting them. As an example, they can be counted by establishing a nominal 'standard' or reference cabinet size. The count could also be based on evaluating the cabinet internals relative to a defined 'standard' or reference configuration.

For example, a particular user may define a cabinet with any horizontal dimension more than 8 feet as an outlier, and a 'standard' cabinet as being nominally 4 feet in length x 3 feet deep. (cabinet height is not generally an issue based on the use of vertical sections). Using this example, the following cabinet and panel examples would be counted as follows:

**Deleted:** For general electrical cabinets and panels, it is proposed that the counting be based on a physically enclosed element. A physically enclosed element means that the cabinet or panel is fully enclosed by 6 solid elements with the provision that a non-combustible floor or ceiling may represent the bottom or top. The term 'solid' element is not intended to mean that the element is substantially continuous. Consequently, breeches or unsealed penetrations could still be treated as 'solid'. The term 'solid' is intended to prevent a panel that is divided by an element that is substantially open from being treated as two separate panels.¶

6 ft



Cabinet is not an outlier –  
Count = 1



Cabinet is same as standard  
Count = 1

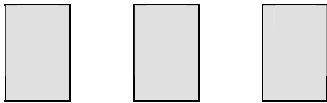


Externally, the cabinet appears to have 6 vertical sections. The construction of internal dividers is unknown or open.  
Count = 6

Deleted: Internal dividers are not solid  
Count = 1

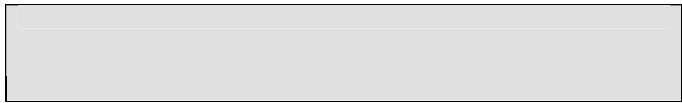


Internal dividers are solid  
Count = 6



Three independent cabinets  
Count = 3

12 feet, 3 ft deep



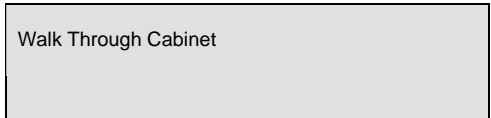
Panel is an outlier, using a 4' standard cabinet -  
Count = 3

9 ft long, 6 ft deep



Cabinet is an outlier, no evaluation of contents, based on reference cabinet  
Count = 3 – due to both variation from the standard length and width..

9 ft long, 6 ft deep



Cabinet is an outlier, evaluation of contents shows small set of ignition sources, typical of the standard cabinet -  
Count = 1

Deleted: low cable loading

The intent is that a basis for the counting of outliers is required. A volumetric comparison is not required. Also, to prevent any appearance that this treatment is intended to be based on physical measurements, the proposed approach allows only integer counting. The assignment of fractional values would not be allowed. In addition, the proposed methodology retains the option for screening small cabinets resulting in a count of zero for them (as discussed in NUREG/CR-6850). As applied in this case, the user would be allowed to screen cabinets or panels based on defined criteria and exclude them from the overall population count. When performing detailed fire modeling, the fire should be applied to the actual cabinet footprint by vertical section, including outliers.

**Basis:**

The existing guidance in NUREG/CR-6850 is based on industry data which has only been provided with fidelity adequate to support plant level ignition frequencies for electrical cabinets. Although the guidance does address the broad applicability of the data, it leaves room for variability that can create issues with PRA quality. It is important that the ignition frequency results be of sufficient quality to support not only NFPA-805 transition but also the more broad scope of regulatory inspection and enforcement issues.

The guidance proposed will provide more consistency when determining plant specific electrical cabinet ignition frequencies while working within the bounds of the exiting data provided by the NUREG. This should facilitate the review and acceptability of the results.

Attachment 2:

Plant:	<u>Harris Nuclear Plant (HNP)</u>	FAQ # <u>06-0016</u>
Submittal Date:	<u>03-22-07</u>	
Licensee Contact:	<u>David Miskiewicz</u>	Tele/email <u>919-546-7588</u>
NRC Contact:	<u></u>	Tele/email <u></u>

Distribution: Check all that apply (*NEI Internal Use*)

FPWG  RIRWG  NSSS OG  NFPA 805 TF

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**Proposed new guidance not in NEI 04-02?** Yes

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**NEI 04-02 Guidance needing interpretation (include section, paragraph number, and line number):**

New attachment on interpretation issues

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#### **Potentially relevant existing FAQ numbers:**

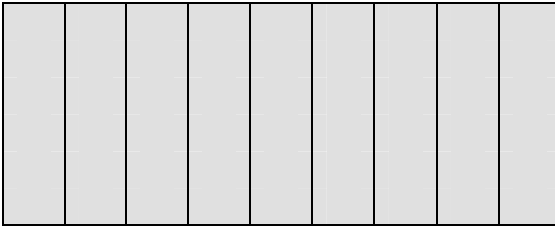
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#### **Response Section**

A generalized counting criterion for general electrical cabinets and panels is proposed. This proposed criterion would involve two elements.

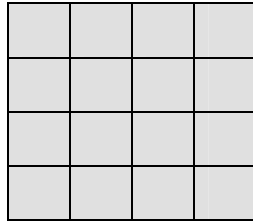
For switchgears, load centers, unit substations, and motor control centers the counting for the purposes of NUREG/CR-6850, Task 6, Bin 15 would be based on vertical section. This counting is illustrated in the following examples.





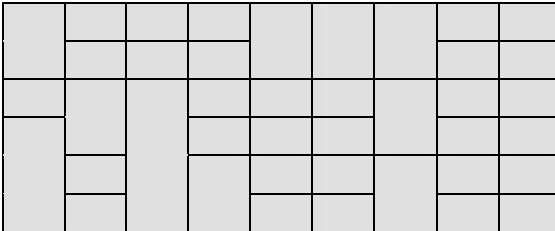
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For example, a particular user may define a cabinet with any horizontal dimension more than 8 feet as an outlier, and a 'standard' cabinet as being nominally 4 feet in length x 3 feet deep. (cabinet height is not generally an issue based on the use of vertical sections). Using this example, the following cabinet and panel examples would be counted as follows:

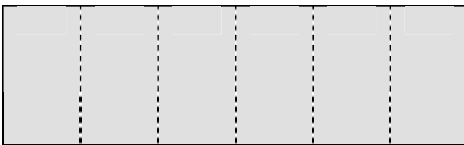
6 ft



Cabinet is not an outlier –  
Count = 1



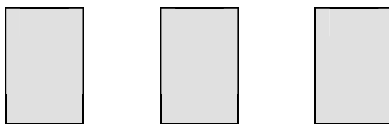
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Internal dividers are solid  
Count = 6



Three independent cabinets  
Count = 3

12 feet, 3 ft deep



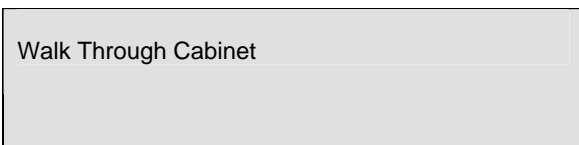
Panel is an outlier, using a 4' standard cabinet -  
Count = 3

9 ft long , 6 ft deep



Cabinet is an outlier, no evaluation of contents, based on reference cabinet  
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9 ft long , 6 ft deep



Cabinet is an outlier, evaluation of contents shows small set of ignition sources typical of the standard cabinet -  
Count = 1

The intent is that a basis for the counting of outliers is required. A volumetric comparison is not required. Also, to prevent any appearance that this treatment is intended to be based on physical measurements, the proposed approach allows only integer counting. The assignment of fractional values would not be allowed. In addition, the proposed methodology retains the option for screening small cabinets resulting in a count of zero for them (as discussed in NUREG/CR-6850). As applied in this case, the user would be allowed to screen cabinets or panels based on defined criteria and exclude them from the overall population count. When performing detailed fire modeling, the fire should be applied to the actual cabinet footprint by vertical section, including outliers.

**Basis:**

The existing guidance in NUREG/CR-6850 is based on industry data which has only been provided with fidelity adequate to support plant level ignition frequencies for electrical cabinets. Although the guidance does address the broad applicability of the data, it leaves room for variability that can create issues with PRA quality. It is important that the ignition frequency results be of sufficient quality to support not only NFPA-805 transition but also the more broad scope of regulatory inspection and enforcement issues.

The guidance proposed will provide more consistency when determining plant specific electrical cabinet ignition frequencies while working within the bounds of the exiting data provided by the NUREG. This should facilitate the review and acceptability of the results.

Attachment 3:

FAQ Number 06-0018, Revision 1

Deleted: 0b

Plant: Harris Nuclear Plant (HNP)  
Submittal Date: 3-22-07  
Licensee Contact: David Miskiewicz  
NRC Contact: \_\_\_\_\_

FAQ # 06-0018  
Tele/email 919-546-7588  
Tele/email \_\_\_\_\_

Deleted: 11-6-06

Distribution: Check all that apply (*NEI Internal Use*)

FPWG  RIRWG  NSSS OG  NFPA 805 TF

**Subject:** Clarification/enhancement of Ignition Source counting guidance for Main Control Board (MCB) in NUREG/CR-6850, supporting NFPA-805 Fire PRA application.

**Interpretation of guidance?** Yes

**Proposed new guidance not in NEI 04-02?** Yes

**Details:**

**NEI 04-02 Guidance needing interpretation (include section, paragraph number, and line number):**

New attachment on interpretation issues

**Circumstances requiring guidance interpretation or new guidance:**

NUREG/CR-6850, Section 6.5.6

The guidance provided in NUREG/CR-6850 for Task 6, Fire Ignition Frequency, is subject to application inconsistency in the treatment of Main Control Board (Bin 4). The guidance for Task 6 does not provide any specific definition or characterization of what constitutes a Main Control Board (MCB) other than a reference to it being the central element of the room. A discussion amongst the Pilot Plants that included consideration of other plants in their respective fleets found wide variability in the configuration of the main control room. There was a concern that inconsistent treatment of this bin would unnecessarily challenge the completion and review of the Fire PRA. This challenge would be manifested by a notable change in the fire frequency assigned to an individual panel depending on whether it was counted as Bin 4 or Bin 15.

Further review of NUREG/CR-6850 found that a definition of MCB is provided in Appendix L. However, this Appendix develops a fire modeling treatment of fire behavior within a panel enclosure. There was a concern that absent documented agreement, there could be a future challenge to the use of the definition in Appendix L for the purposes of Task 6, Bin 4 counting.

**Detail contentious points if licensee and NRC have not reached agreement**

This topic has impact on the NFPA-805 pilots, non-pilots and other users of NUREG/CR-6850.

**Potentially relevant existing FAQ numbers:**

This guidance is specific to the characterization of Main Control Board for Bin 4 determination. The characterization and counting of electrical cabinets for Bin 15 determination is addressed by FAQ 06-0016.

**Response Section**

It is proposed that the definition of Main Control Board provided in NUREG/CR-6850, Appendix L be accepted as also being applicable for Task 6, Bin 4 counting. Any panel that is detached from the main horseshoe would generally be excluded from this definition of the main control board with few exceptions.

**Basis:**

The guidance proposed will provide more consistency when determining plant specific control room ignition frequencies while working within the bounds of the exiting data provided by the NUREG. This should facilitate the review and acceptability of the results.

Attachment 4:





**Potentially relevant existing FAQ numbers:**

This guidance is specific to the characterization of Main Control Board for Bin 4 determination. The characterization and counting of electrical cabinets for Bin 15 determination is addressed by FAQ 06-0016.

**Response Section**

It is proposed that the definition of Main Control Board provided in NUREG/CR-6850, Appendix L be accepted as also being applicable for Task 6, Bin 4 counting. Any panel that is detached from the main horseshoe would generally be excluded from this definition of the main control board with few exceptions.

**Basis:**

The guidance proposed will provide more consistency when determining plant specific control room ignition frequencies while working within the bounds of the exiting data provided by the NUREG. This should facilitate the review and acceptability of the results.

Brandon,

Dan will complete FAQ-06-008.

Phil has completed FAQ-06-012. We will share it on 2/26.

What is the next most important FAQ? FAQ-06-005? FAQ-06-011? Consult with the pilots and let us know asap.

Sunil

**Mail Envelope Properties** (46236470.D54 : 19 : 10000)

**Subject:** Next most important FAQ  
**Creation Date** 4/16/2007 7:56:32 AM  
**From:** Sunil Weerakkody

**Created By:** SDW1@nrc.gov

**Recipients**

nei.org  
btj (Brandon JAMAR)

nrc.gov  
OWGWPO02.HQGWDO01  
DXF1 CC (Daniel Frumkin)

nrc.gov  
OWGWPO04.HQGWDO01  
ARK1 CC (Alex Klein)

nrc.gov  
TWGWPO01.HQGWDO01  
CEM4 CC (Charles Moulton)  
PWL CC (Paul Lain)

nrc.gov  
TWGWPO03.HQGWDO01  
PMQ CC (Phil Qualls)

**Post Office**

OWGWPO02.HQGWDO01  
OWGWPO04.HQGWDO01  
TWGWPO01.HQGWDO01  
TWGWPO03.HQGWDO01

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nrc.gov

<b>Files</b>	<b>Size</b>	<b>Date &amp; Time</b>
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**Options**

**Expiration Date:** None  
**Priority:** Standard  
**ReplyRequested:** No  
**Return Notification:** None

**Concealed Subject:** No

**Security:**

Standard

**Junk Mail Handling Evaluation Results**

Message is not eligible for Junk Mail handling

Message is from an internal sender

**Junk Mail settings when this message was delivered**

Junk Mail handling disabled by User

Junk Mail handling disabled by Administrator

Junk List is not enabled

Junk Mail using personal address books is not enabled

Block List is not enabled

The next highest FAQ priority is FAQ 11.

The following have the next, but equal priorities: FAQs 5, 16, 17, 18

Brandon

-----Original Message-----

From: Sunil Weerakkody [<mailto:SDW1@nrc.gov>]

Sent: Monday, April 16, 2007 7:57 AM

To: JAMAR, Brandon

Cc: Alex Klein; Charles Moulton; Daniel Frumkin; Phil Qualls; Paul Lain

Subject: Next most important FAQ

Brandon,

Dan will complete FAQ-06-008.

Phil has completed FAQ-06-012. We will share it on 2/26.

What is the next most important FAQ? FAQ-06-005? FAQ-06-011? Consult with the pilots and let us know asap.

Sunil

**Mail Envelope Properties** (4623AFD4.3A6 : 7 : 9126)

**Subject:** RE: Next most important FAQ  
**Creation Date** 4/16/2007 1:19:57 PM  
**From:** "JAMAR, Brandon" <btj@nei.org>

**Created By:** btj@nei.org

**Recipients**

nrc.gov  
TWGWPO04.HQGWDO01  
SDW1 (Sunil Weerakkody)

nrc.gov  
OWGWPO04.HQGWDO01  
ARK1 CC (Alex Klein)

nrc.gov  
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**Options**

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**Return Notification:** None

**Concealed Subject:** No  
**Security:** Standard

**Junk Mail Handling Evaluation Results**

Message is eligible for Junk Mail handling  
This message was not classified as Junk Mail

**Junk Mail settings when this message was delivered**

Junk Mail handling disabled by User  
Junk Mail handling disabled by Administrator  
Junk List is not enabled  
Junk Mail using personal address books is not enabled  
Block List is not enabled



I've attached FAQ 06-0008 Revision 4a for submittal. This file has both the engineering analysis and corresponding NEI 04-02 markup which was combined per Dan's request.

Please let me know if there are any issues with this transmittal. Also, would you please reply to me indicating you successfully received this email?

Thank you,

Brandon T. Jamar

Project Manager, Engineering

Nuclear Energy Institute

1776 I Street NW, Suite 400

Washington, DC 20006

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nuclear. clean air energy.

**Mail Envelope Properties** (4623B6FA.7A0 : 0 : 10144)

**Subject:** FAQ 06-0008 Rev. 4a for Submittal  
**Creation Date** 4/16/2007 1:50:55 PM  
**From:** "JAMAR, Brandon" <btj@nei.org>

**Created By:** btj@nei.org

**Recipients**

nrc.gov  
TWGWPO04.HQGWDO01  
SDW1 (Sunil Weerakkody)

nrc.gov  
TWGWPO01.HQGWDO01  
CEM4 (Charles Moulton)

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OWGWPO02.HQGWDO01  
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**Post Office**

TWGWPO04.HQGWDO01  
TWGWPO01.HQGWDO01  
OWGWPO02.HQGWDO01

**Route**

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**Files**

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FAQ 06-0008 rev 4a.pdf	152850
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**Date & Time**

4/16/2007 1:50:55 PM

**Options**

**Expiration Date:** None  
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**Security:** Standard

**Junk Mail Handling Evaluation Results**

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**Junk Mail settings when this message was delivered**

Junk Mail handling disabled by User

Junk Mail handling disabled by Administrator

Junk List is not enabled

Junk Mail using personal address books is not enabled

Block List is not enabled

Attachment 1:



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

The fire protection program elements and minimum design requirements of NFPA 805 Chapter 3 may be subject to the performance-based methods permitted elsewhere in NFPA 805 per 10 CFR 50.48(c)(2)(vii), as long as the appropriate regulatory processes (i.e., a license amendment request) are utilized.

A process for a 10 CFR 50.48(c)(2)(vii) License Amendment Request has not yet been agreed upon.

**Potentially relevant existing FAQ numbers:**

FAQ 06-0004 includes a process for defining fire protection systems and features required to meet NFPA 805 Chapter 3 criteria.

---

**Response Section:****Proposed resolution of FAQ and the basis for the proposal:**

A high-level purpose of NFPA 805, as implemented under the endorsement of 10 CFR 50.48(c), is to clarify how licensees may use the flexibility afforded by 10 CFR 50.48(c)(2)(vii) to develop a process to maintain the current flexibility available to licensees under Generic Letter (GL) 86-10 evaluations.

**BACKGROUND**

10 CFR 50.48(c) requires licensees to submit 10 CFR 50.90 license amendment requests for any changes to Chapter 3 features of NFPA 805, unless they have been previously approved by the NRC. Under the standard license condition of GL 86-10, licensees are allowed to make certain types of changes without prior NRC approval as long as the changes do not adversely affect the plant's ability to safely shutdown in the event of a fire.

To apply this process/method, licensees must send the proposed process/methods outlined in this FAQ to the NRC for approval. Then, they may use the approved processes/methods without prior approval for specific applications, as long as the application is within the bounds of NRC approval of the proposed methods/processes. Approval of a license amendment for the use of this process would constitute a "previously approved alternative" as discussed in NFPA 805 Section 3.1.

The licensees' process/methodology must request an amendment under 10 CFR 50.90, using the flexibility available under 10 CFR 50.48(c)(2)(vii), "Performance-Based Methods", to allow 10 CFR 50.48(c) licensees to establish a process that enables them to make changes to Chapter 3 of NFPA 805, as long as those changes only affect the referenced standards and listings, such as Underwriters Laboratory, Inc. or Factory Mutual listings. Under the proposal the licensee will commit to a process to evaluate deviations from secondary codes and listings required by NFPA

**FAQ Title Alternative Method for Fire Protection Engineering Analyses**

805 Chapter 3. The NFPA 805 change evaluation process will be used to ensure that nuclear safety performance goals, objectives and criteria are satisfied along with defense-in-depth and safety margins, as described in 10 CFR 50.48(c)(2)(vii).

Therefore, application of this process/method requires two steps. First, the process/methods and bounds of the process must be submitted to the NRC for approval. Second, following approval by the NRC, all plant specific changes made under this license amendment will undergo the same evaluation process as part of 10 CFR 50.48(c)(2)(vii). This second step, application of the process/method, will not require NRC approval.

This process/method would not apply to NFPA 805 Chapter 3 changes that do not relate to either NFPA codes or listings or changes that are not conditional based on NFPA 805 Chapter 4. These types of changes would continue to require individual 10 CFR 50.90 license amendment requests addressing the specific deviation.

**PROCESS**

Proposed addition to the post-NFPA transition fire protection standard license condition (Section C.3.1 of Regulatory Guide 1.205):

“Licensees may perform change evaluations for fundamental fire protection program and design elements of NFPA 805 Chapter 3 that are conditional based on NFPA 805 Chapter 4 requirements.

Licensees may also perform change evaluations for deviations from the NFPA codes and listings for rated components mentioned in NFPA 805, without a 10 CFR 50.90 submittal, as long as the specific requirement for the feature is not included in NFPA 805 Chapter 3 itself, and the NFPA 805 change process is used.”

The following provides the sections of NFPA 805 that will utilize this process/method. Sections that are addressed conditionally by Chapter 4 performance-based process are also identified for completeness.

**Column Heading Definition:**

**Fire Protection Engineering Analysis Process Applicable:** Sections of NFPA 805 Chapter 3 containing referenced codes and listings. Note the “Applicability” would only apply to the referenced codes and listings contained within these sections, and the process could not be used to change the NFPA 805 Chapter 3 specific requirements.

**Chapter 4 Conditional Section:** These NFPA 805 Chapter 3 sections are conditional based upon NFPA 805 Chapter 4 requirements. The requested use of fire protection engineering evaluations for these sections are not limited to referenced codes and listings.

FAQ Title **Alternative Method for Fire Protection Engineering Analyses**

**Fire Protection Engineering Analysis and Chapter 4 Not Applicable:** These NFPA 805 Chapter 3 sections do not have NFPA 805 Chapter 4 conditions and do not have referenced codes and listings. Therefore, the process/method associated with this FAQ is not applicable and would be outside the scope of the associated LAR.

Section	Title	FP Eng. Analysis Process Applicable	Chapter 4 Conditional Section	FP Eng. Analysis Process and Chapter 4 Not Applicable
3.1	General			X
3.2	Fire Protection Plan			X
3.2.1	Intent			X
3.2.2	Management Policy Direction and Responsibility			X
3.2.3	Procedures			X
3.3	Prevention			X
3.3.1	Fire Prevention for Operational Activities	X		
3.3.2	Structural	X		
3.3.3	Interior Finishes	X		
3.3.4	Insulation Materials			X
3.3.5	Electrical			X
3.3.6	Roofs	X		
3.3.7	Bulk Flammable Gas Storage	X		
3.3.8	Bulk Storage of Flammable and Combustible Liquids	X		
3.3.9	Transformers			X
3.3.10	Hot Pipes and Surfaces			X
3.3.11	Electrical Equipment (Note 1)			X
3.3.12	Reactor Coolant Pumps (Note 1)			X
3.4	Industrial Fire Brigade			
3.4.1	On-Site Fire Fighting Capability	X		
3.4.2	Pre-Fire Plans			X



FAQ Title Alternative Method for Fire Protection Engineering Analyses

Section	Title	FP Eng. Analysis Process Applicable	Chapter 4 Conditional Section	FP Eng. Analysis Process and Chapter 4 Not Applicable
3.4.3	Training and Drills	X		
3.4.4	Fire Fighting Equipment	X		
3.4.5	Off-Site Fire Department Interface			X
3.4.6	Communications			X
3.5	Water Supply	X		
3.6	Standpipe and Hose Stations	X		
3.7	Fire Extinguishers	X		
3.8	Fire Alarm and Detection Systems		▼	
<u>3.8.1</u>	<u>Fire Alarm</u>	<u>X</u>		
<u>3.8.2</u>	<u>Detection</u>		<u>X</u>	
3.9	Automatic and Manual Water-Based Fire Suppression Systems		X	
3.10.	Gaseous Fire Suppression Systems		X	
3.11	Passive Fire Protection Features		X	
3.11.1	Building Separation <u>(Note 3)</u>		▼	<u>X</u>
3.11.2	Fire Barriers		X	
3.11.3	Fire Barrier Penetrations		X	
3.11.4	Through Penetration Fire Stops (Note 2)		X	
3.11.5	Electrical Raceway Fire Barrier Systems (ERFBS)		X	

Deleted: X

Deleted: X

Note 1 – Separate FAQs will be used to clarify the applicability of engineering analyses to the requirements of Section 3.3.11 and 3.3.12 of NFPA 805.

Note 2 – Through penetration fire stops referenced in Section 3.11.4 of NFPA 805 are considered conditional based upon NFPA 805 Chapter 4 requirements, since they are integral to fire barriers (Section 3.11.2)

Note 3 – Section 3.11.1 of NFPA 805 contains an exception for performance-based analysis. The process in this FAQ is not applicable.

**EXAMPLE**

Section 3.6.1 of NFPA 805 requires a hose system to be installed per NFPA 14. Using this process/method, a hose system must be available and have access to “all power block buildings,” and must also be a Class III standpipe, but may deviate from other specific requirements of NFPA 14. These deviations must not contradict other text in Chapter 3 of NFPA 805. The NFPA 805 change evaluation process will be used to ensure that nuclear safety performance goals, objectives and criteria are satisfied along with defense-in-depth and safety margins, as described in 10 CFR 50.48(c)(2)(vii).

**JUSTIFICATION**

Since this process/method will be approved by the NRC as part of the 10 CFR 50.90 submittal, it will meet the legal requirement of 10 CFR 50.48(c)(2)(vii). The basis for the change evaluation to be included in the 10 CFR 50.90 submittal will be that each individual change will be evaluated against the NFPA 805 change process (NFPA 805 performance goals / objectives / criteria, defense-in-depth and safety margins evaluation), and providing this flexibility does not adversely impact the features required by Chapter 3 of NFPA 805 to ensure the NFPA 805 performance goals, performance objectives, and performance criteria are satisfied. By only allowing changes to NFPA 805 Chapter 4 conditional sections and the secondary codes and listings, the changes are bounded. All features required by Chapter 3 will continue to be required (unless specifically addressed separately from this process in an LAR). Secondary features may be changed based on an evaluation, using the required methods in a similar manner as is currently allowed under the Generic Letter 86-10 license condition, without prior NRC approval.

The method will ensure that the following requirements are met:

<b>10 CFR 50.48(c)(2)(vii) Requirement</b>	<b>Method of Accomplishment</b>
(a) The required NFPA 805 performance goals, performance objectives, and performance criteria are satisfied.	The fire protection engineering analysis process includes the assessment of impact on NFPA 805 performance goals, performance objectives, and performance criteria are satisfied. Impact will be assessed per risk-informed, performance-based change process in NEI 04-02 Chapter 5 and Appendices I and J and supplemented by RG 1.205 Section 3.2.
(b) Safety margins are maintained.	Maintaining safety margins will be ensured using the risk-informed, performance-based change process in NEI 04-02 Chapter 5 and Appendices I and J and supplemented by RG 1.205 Section C.3.2.
(c) Fire protection defense-in-depth is maintained.	Maintaining fire protection defense-in-depth will be ensured using the risk-informed, performance-based change process in NEI 04-02 Chapter 5 and Appendices I and J and supplemented by RG 1.205 Section C.3.2.

**FAQ Title Alternative Method for Fire Protection Engineering Analyses**

The LAR will contain the following information per Regulatory Guide 1.205 Section C.3.2.3:

RG 1.205 Guidance	Method of Accomplishment
(a) detailed description of the alternative risk-informed, performance-based method	<p><u>The process is not considered an "alternative method". Existing risk-informed, performance-based methods will be applied, but for a limited scope of NFPA 805 Chapter 3 sections:</u></p> <ul style="list-style-type: none"> <li>▪ <u>When the Chapter 3 requirements are conditional based upon NFPA 805 Chapter 4; and</u></li> <li>▪ <u>For deviations from the NFPA codes and listings for rated components mentioned in NFPA 805.</u></li> </ul>
(b) description of how the method will be applied, the aspects of the FPP to which it will applied, and the circumstances under which it will be applied	<p>Risk-informed, performance based fire protection engineering analyses will be allowed to be applied</p> <ul style="list-style-type: none"> <li>▪ When the Chapter 3 requirements are conditional based upon NFPA 805 Chapter 4; and</li> <li>▪ For deviations from the NFPA codes and listings for rated components mentioned in NFPA 805</li> </ul>
(c) acceptance criteria, including risk increase acceptance criteria, that the licensee will apply when determining whether the results of an evaluation that uses this methodology meet the required NFPA 805 performance goals, performance objectives, and performance criteria	<p>Acceptance criteria for changes will use the risk-informed, performance-based change process in NEI 04-02 Chapter 5 and Appendices I and J (and supplemented by RG 1.205 Section 3.2).</p>
(d) for PSA-based methodologies, an explanation of how the PSA is of sufficient technical adequacy for evaluation of the changes to which it will be applied	<p>Technical adequacy of the PSA used in the risk-informed, performance-based approach will be in accordance with RG 1.205.</p>
(e) for PSA-based methodologies, a description of the peer review and how the review findings have been addressed	<p>Peer review of the PSA used in the risk-informed, performance-based approach will be in accordance with RG 1.205.</p>

**Deleted:** The alternative method will be described in the LAR in detail, or a reference to NEI 04-02 will be provided once the process is added to this document.

**Formatted:** Bullets and Numbering

**CONCLUSION**

This process/method will permit a risk-informed, performance-based approach to evaluate Fire Protection Program changes within the bounds of secondary codes and listings or changes that are conditional based on NFPA 805 Chapter 4. Following NRC approval of a 10 CFR 50.90 license amendment, this process/methodology will permit licensees to evaluate fire protection features without prior NRC approval. Other issues not involving NFPA codes or listings or changes that are not conditional based on NFPA 805 Chapter 4, would have to be submitted for NRC approval on a case by case basis.

FAQ Number 06-0008 FAQ Revision 4a

FAQ Title Alternative Method for Fire Protection Engineering Analyses

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

[See attached proposed revision to NEI 04-02]

Section 2.2, page 7, 3<sup>rd</sup> paragraph:

- **Performance-Based Methods, § 50.48(c)(2)(vii)** - The prohibition in Section 3.1 of NFPA 805 that does not permit the use of performance-based methods for the Chapter 3 fundamental fire protection program elements and minimum design criteria is not endorsed. The NRC takes this exception in order to provide licensees greater flexibility in meeting the fire protection program elements and minimum design requirements of Chapter 3 by the use of performance-based methods (including the use of risk-informed methods) described in the NFPA 805 standard. Licensees who wish to deviate from Chapter 3 requirements must submit a license amendment request for NRC approval.

Refer to Appendix L for a process/method to be submitted in the transition LAR is to allow fire protection engineering analyses to address NFPA 805 Chapter 3 requirements:

- When the Chapter 3 requirements are conditional based upon NFPA 805 Chapter 4; and
- For deviations from the NFPA codes and listings for rated components in NFPA 805.

Approval of a license amendment for the use of this process would constitute a “previously approved alternative” that would allow the use of this process without prior approval for specific applications, as long as the application is within the bounds of NRC approval of the proposed methods/processes.

---

Section 2.3, page 9, 2<sup>nd</sup> paragraph:

“Compliance with Chapter 3 of NFPA 805 may be demonstrated by showing that the specific requirements are met either directly or by the use of alternative methods and analytical approaches. Alternative methods and analytical approaches must be accepted by the NRC in a license amendment per 10 CFR 50.48(c)(4). Contrary to Section 3.1 of NFPA 805, performance-based methods may be used. (See 10 CFR 50.48(c)(2)(vii)). Note licensees contemplating applying for permission to use an alternative method or analytical approach could pursue a generic approval process with other utilities and/or NEI. See Section 2.4 of this document.

Refer to Appendix L for a process/method to be submitted in the transition LAR is to allow fire protection engineering analyses to address NFPA 805 Chapter 3 requirements:

- When the Chapter 3 requirements are conditional based upon NFPA 805 Chapter 4; and
- For deviations from the NFPA codes and listings for rated components in NFPA 805.

Approval of a license amendment for the use of this process would constitute a “previously approved alternative” that would allow the use of this process without prior approval for specific applications, as long as the application is within the bounds of NRC approval of the proposed methods/processes.”

---

Section 4.1.1, page 21, 1<sup>st</sup> paragraph:

“For areas of the fire protection program that are not in compliance with NFPA 805, Chapter 3, the licensee may utilize the alternate performance-based methods as long as the method is

approved by the NRC in a License Amendment. The NRC has taken exception to NFPA 805, Section 3.1 (See 10 CFR 50.48.c (2)(vii)).

Refer to Appendix L for a process/method to be submitted in the transition LAR is to allow fire protection engineering analyses to address NFPA 805 Chapter 3 requirements:

- When the Chapter 3 requirements are conditional based upon NFPA 805 Chapter 4; and
- For deviations from the NFPA codes and listings for rated components in NFPA 805.

Approval of a license amendment for the use of this process would constitute a “previously approved alternative” that would allow the use of this process without prior approval for specific applications, as long as the application is within the bounds of NRC approval of the proposed methods/processes.”

---

Section 4.3.1, page 27, add new paragraph to this section at the end

“Refer to Appendix L for a process/method to be submitted in the transition LAR is to allow fire protection engineering analyses to address NFPA 805 Chapter 3 requirements:

- When the Chapter 3 requirements are conditional based upon NFPA 805 Chapter 4; and
- For deviations from the NFPA codes and listings for rated components in NFPA 805.

Approval of a license amendment for the use of this process would constitute a “previously approved alternative” that would allow the use of this process without prior approval for specific applications, as long as the application is within the bounds of NRC approval of the proposed methods/processes.”

---

Section 4.6.1, page 34 insert new paragraph before last sentence “A sample LAR.....”

“Refer to Appendix L for a process/method to be submitted in the transition LAR is to allow fire protection engineering analyses to address NFPA 805 Chapter 3 requirements:

- When the Chapter 3 requirements are conditional based upon NFPA 805 Chapter 4; and
- For deviations from the NFPA codes and listings for rated components in NFPA 805.

Approval of a license amendment for the use of this process would constitute a “previously approved alternative” that would allow the use of this process without prior approval for specific applications, as long as the application is within the bounds of NRC approval of the proposed methods/processes.”

---

Section 5.3.1, page 43

“.....Under the risk-informed, performance-based regulatory framework, Fire Protection Program changes will be made without prior NRC approval, except where required by:

- 10 CFR 50.59,
- Other regulatory processes (i.e., Technical Specifications),
- 10CFR 50.48(c) (certain changes to Chapter 3 requirements or Nuclear Safety Changes that do not meet the acceptance criteria of NFPA Section 2.4.4.)
- Changes that have been evaluated using performance-based methods other than the those acceptable to the AHJ
- Changes that have been evaluated using performance-based methods other than the approaches in NFPA 805 (i.e., fire modeling and risk evaluation)

Except as noted, in general changes that have been previously approved by the NRC or that do not deviate from a specific NFPA 805 requirement related to systems, methods, or devices need not be submitted for AHJ approval.....”

-----  
Section 5.3.2, page 46, starting with 7<sup>th</sup> paragraph:

“Additional consideration should be given to changes to Fundamental Program Elements and Minimum Design Requirements. 10 CFR 50.48(c)(2)(vii) allows licensees to use performance-based methods to demonstrate compliance with NFPA 805 Chapter 3 requirements. However, these alternate methods must be approved via the license amendment process (10 CFR 50.48(c)(4)).

Refer to Appendix L for a process/method to be submitted in the transition LAR is to allow fire protection engineering analyses to address NFPA 805 Chapter 3 requirements:

- When the Chapter 3 requirements are conditional based upon NFPA 805 Chapter 4; and
- For deviations from the NFPA codes and listings for rated components in NFPA 805.

Approval of a license amendment for the use of this process would constitute a “previously approved alternative” that would allow the use of this process without prior approval for specific applications, as long as the application is within the bounds of NRC approval of the proposed methods/processes.

Most changes to the Fundamental Program Elements and Minimum Design Requirements should not require a License Amendment request, since they are evaluations that demonstrate compliance with requirements of Chapter 3 of NFPA 805. Licensees can deviate from the NFPA standards referenced in NFPA 805 Chapter 3 with in the bounds discussed in Appendix L.

Examples of changes that would not require a License Amendment are:

- Replacing a fire rated component (e.g., penetration seal, door, wrap, etc.) with a different component/material having the same or greater fire rating. This does not require a license amendment because it meets the appropriate code.
- Evaluating a blocked sprinkler head(s) for adequate coverage in the area. Chapter 3 of NFPA 805 and the referenced code do not dictate where a sprinkler system should be

**Deleted:** NFPA 805 Section 1.7 Equivalency states that “Nothing in this standard is intended to prevent the use of systems, methods, or devices of equivalent or superior quality, strength, fire resistance, effectiveness, durability and safety over those prescribed by this standard. Technical documentation shall be submitted to the authority having jurisdiction to demonstrate equivalency.” Licensees can deviate from the NFPA standards referenced in NFPA 805 Chapter 3 without NRC approval if allowed by the code of record, so long as the evaluated condition is in accordance with the terms of the code of record or if the code does not dictate the specific issue (e.g., adequacy of coverage of suppression and detection systems). In addition to the performance-based methods outlined in NFPA 805, the NRC will provide guidance on Analytical methods and tools and methods acceptable for use in NFPA 805 applications in the Regulatory Guide for the adoption of 10 CFR 50.48. Therefore approval will be required for:¶

**Deleted:** out NRC approval if allowed by the code of record, so long as the evaluated condition is in accordance with the terms of the code of record (e.g., “Nothing in this standard is intended to restrict new technologies or alternate arrangements, providing the level of safety prescribed by the standard is not lowered.” – Excerpt from 1985 edition of NFPA 13) or if the code does not dictate the specific issue (e.g., adequacy of coverage of suppression and detection systems).

**Deleted:** <#>Changing the surveillance frequency of a fire protection feature or system based on NFPA standard as long as the underlying basis for the NFPA standard frequency is the same. This does not require a license amendment because the surveillance frequency would satisfy that specified in the current edition of NFPA codes for providing reasonable assurance that the system or component is maintained in an operable condition.¶

installed. Therefore the adequacy of the coverage should be evaluated with respect to the nuclear safety component(s) the sprinkler system is protecting.

- Evaluating a broken/missing hanger on a fire suppression system. The acceptability of this deviation can be evaluated to show that the support of the system is still adequate with the broken/missing hanger and is therefore equivalent to a code compliant system as allowed by the code of record.

Conversely, examples of changes that would require a License Amendment are:

- ~~Reducing the number of fire brigade members required on-site to below five.~~
- Elimination of the Fire Prevention Program at the plant

**Deleted:** <#>Revision of concentration of an agent to a value less than that required by the respective code or previously approved value.¶

NFPA 805 Section 4.1, states that, “Deterministic requirements shall be “deemed to satisfy” the performance criteria and require no further engineering analysis.” Chapter 4 of NFPA 805 provides the requirements for the baseline evaluation of the fire protection program’s ability to achieve the performance criteria outlined in Section 1.5 of NFPA 805. The ‘deemed to satisfy’ with out additional engineering analysis does not imply that a Plant Change Evaluation would not be performed. For example if a licensee was changing its current licensing basis in a fire area to a ‘deterministic method’, that change would require a ‘Plant Change Evaluation’. Note the Defense in Depth and Safety Margin portion of the “Plant Change Evaluation’ would be satisfied by the fact that a ‘deterministic’ option was chosen for compliance (See Sections 2.4.4.2 and 2.4.4.3 of NFPA 805).”

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**FIRE PROTECTION PROGRAM FUNDAMENTAL ELEMENT / MINIMUM DESIGN REQUIREMENT CHANGE QUESTIONS**

Considering the proposed change, answer the following questions, including a reference to the applicable regulatory, licensing basis, or NFPA document(s), and a brief description of why the proposed change does or does not satisfy the referenced document(s).

3. Does the proposed change involve an **NFPA 805 Chapter 3** requirement as defined in **[Insert appropriate document reference]**? For those fire protection program changes that involve a Nuclear Safety Compliance Strategy requirement or a Radioactive Release requirement, ensure the effect of the change is evaluated in Appendix I, Sections 1.0 and 2.0, respectively.

- Yes – Proceed to Question 3.a.
- No – Document basis and proceed to Question 2

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a. Is the change editorial or trivial in nature? (See Attachment 1)

- o  Yes Document basis and stop.
- o  No Proceed to Question 3.b.

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b. Does the change meet NFPA 805 Chapter 3 requirements or the previously approved alternative as defined in [Insert appropriate document reference]?

Previously approved alternatives include fire protection engineering analyses that are allowed based upon an approved license amendment described in NEI 04-02, Appendix L. (See Attachment 2)

- o  Yes Document conclusions, complete remaining sections.
- o  No License Amendment Request must be processed for NRC approval. Complete remaining sections.

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**Deleted:** Changes that deviate from the NFPA standards referenced in NFPA 805 Chapter 3 can be made without NRC approval if allowed by the code of record (so long as the evaluated condition is in accordance with the terms of the code of record) or if the code does not dictate the specific issue (e.g., adequacy of coverage of suppression and detection systems). Ensure documentation for determination of acceptability is included and meets NEI 04-02 requirements for documentation.

“Refer to Appendix L for a process/method to be submitted in the transition LAR is to allow fire protection engineering analyses to address NFPA 805 Chapter 3 requirements:

- When the Chapter 3 requirements are conditional based upon NFPA 805 Chapter 4; and
- For deviations from the NFPA codes and listings for rated components in NFPA 805.

Approval of a license amendment for the use of this process would constitute a “previously approved alternative” that would allow the use of this process without prior approval for specific applications, as long as the application is within the bounds of NRC approval of the proposed methods/processes.

The following are examples of changes that do not require NRC approval:

- Replacing a fire rated component (e.g., fire rated penetration seal, fire door, fire rated wrap, etc.) with a different component having the same or greater fire rating.
- Use of fire hoses manufactured from a different material.
- Use of a valve assembly supplied by a different manufacturer for a suppression system.
- Changes to Fire Brigade Training requirements that do not affect performance.
- Evaluating a blocked sprinkler head(s) for adequate coverage in the area. Chapter 3 of NFPA 805 and the referenced code do not dictate where a sprinkler system should be installed. Therefore the adequacy of the coverage should be evaluated with respect to the nuclear safety component(s) the sprinkler system is protecting.”

**Deleted:** In general, deviations from Chapter 3 must be submitted for NRC approval per the Rule. However, licensees can deviate from the NFPA standards referenced in Chapter 3 without NRC approval if allowed by the code of record and the changed condition is in accordance with the terms of the code of record (e.g., many earlier editions of NFPA Codes included the following statement: “Nothing in this standard is intended to restrict new technologies or alternate arrangements, providing the level of safety prescribed by the standard is not lowered.” - From 1985 edition of NFPA 13) or if the code (including NFPA 805, Chapter 3) does not dictate the specific issue (e.g., suppression system or detection system coverage).

**Deleted:** <#>Changing the surveillance frequency for a fire protection feature, as long as the new frequency is bounded by the NFPA code of record (and does not increase CDF or LERF), providing reasonable assurance that the system or component is maintained in an operable condition.¶

## Appendix L – Alternative Method for Engineering Analyses

This Appendix is based upon Frequently Asked Question 06-0008, Revision [TBD], approved by the NRC in Closure memo dated [TBD], as documented in Regulatory Issues Summary (RIS) 2007-[TBD], dated [TBD] ADAMS Accession No. [TBD].

### **L.1 Background**

10 CFR 50.48(c) requires licensees to submit 10 CFR 50.90 license amendment requests for any changes to Chapter 3 features of NFPA 805, unless they have been previously approved by the NRC. Under the standard license condition of GL 86-10, licensees are allowed to make certain types of changes without prior NRC approval as long as the changes do not adversely affect the plant's ability to safely shutdown in the event of a fire.

To apply this process/method, licensees must send the proposed process/methods outlined in this Appendix to the NRC for approval. Then, they may use the approved processes/methods without prior approval for specific applications, as long as the application is within the bounds of NRC approval of the proposed methods/processes. Approval of a license amendment for the use of this process would constitute a "previously approved alternative" as discussed in NFPA 805 Section 3.1.

The licensees' process/methodology must request an amendment under 10 CFR 50.90, using the flexibility available under 10 CFR 50.48(c)(2)(vii), "Performance-Based Methods", to allow 10 CFR 50.48(c) licensees to establish a process that enables them to make changes to Chapter 3 of NFPA 805, as long as those changes only affect the referenced standards and listings, such as Underwriters Laboratory, Inc. or Factory Mutual listings. Under the proposal the licensee will commit to a process to evaluate deviations from secondary codes and listings required by NFPA 805 Chapter 3. The NFPA 805 change evaluation process will be used to ensure that nuclear safety performance goals, objectives and criteria are satisfied along with defense-in-depth and safety margins, as described in 10 CFR 50.48(c)(2)(vii).

Therefore, application of this process/method requires two steps. First, the process/methods and bounds of the process must be submitted to the NRC for approval. Second, following approval by the NRC, all plant specific changes made under this license amendment will undergo the same evaluation process as part of 10 CFR 50.48(c)(2)(vii). This second step, application of the process/method, will not require NRC approval.

This process/method would not apply to NFPA 805 Chapter 3 changes that do not relate to either NFPA codes or listings or changes that are not conditional based on NFPA 805 Chapter 4. These types of changes would continue to require individual 10 CFR 50.90 license amendment requests addressing the specific deviation.

### **L.2 Process**

Proposed addition to the post-NFPA transition fire protection standard license condition (Section C.3.1 of Regulatory Guide 1.205:

## Appendix L – Alternative Method for Engineering Analyses

“Licensees may perform change evaluations for fundamental fire protection program and design elements of NFPA 805 Chapter 3 that are conditional based on NFPA 805 Chapter 4 requirements.

Licensees may also perform change evaluations for deviations from the NFPA codes and listings for rated components mentioned in NFPA 805, without a 10 CFR 50.90 submittal, as long as the specific requirement for the feature is not included in NFPA 805 Chapter 3 itself, and the NFPA 805 change process is used.”

The following table provides the sections of NFPA 805 that will utilize this process/method. Sections that are addressed conditionally by Chapter 4 performance-based process are also identified for completeness.

### **Column Heading Definition:**

**Fire Protection Engineering Analysis Process Applicable:** Sections of NFPA 805 Chapter 3 containing referenced codes and listings. Note the “Applicability” would only apply to the referenced codes and listings contained within these sections, and the process could not be used to change the NFPA 805 Chapter 3 specific requirements.

**Chapter 4 Conditional Section:** These NFPA 805 Chapter 3 sections are conditional based upon NFPA 805 Chapter 4 requirements. The requested use of fire protection engineering evaluations for these sections are not limited to referenced codes and listings.

**Fire Protection Engineering Analysis and Chapter 4 Not Applicable:** These NFPA 805 Chapter 3 sections do not have NFPA 805 Chapter 4 conditions and do not have referenced codes and listings. Therefore, the process/method associated with this Appendix is not applicable and would be outside the scope of the associated LAR.

<b><u>Section</u></b>	<b><u>Title</u></b>	<b><u>FP Eng. Analysis Process Applicable</u></b>	<b><u>Chapter 4 Conditional Section</u></b>	<b><u>FP Eng. Analysis Process and Chapter 4 Not Applicable</u></b>
<b><u>3.1</u></b>	<b><u>General</u></b>			<b><u>X</u></b>
<b><u>3.2</u></b>	<b><u>Fire Protection Plan</u></b>			<b><u>X</u></b>
<b><u>3.2.1</u></b>	<b><u>Intent</u></b>			<b><u>X</u></b>
<b><u>3.2.2</u></b>	<b><u>Management Policy Direction and Responsibility</u></b>			<b><u>X</u></b>
<b><u>3.2.3</u></b>	<b><u>Procedures</u></b>			<b><u>X</u></b>
<b><u>3.3</u></b>	<b><u>Prevention</u></b>			<b><u>X</u></b>
<b><u>3.3.1</u></b>	<b><u>Fire Prevention for Operational Activities</u></b>	<b><u>X</u></b>		
<b><u>3.3.2</u></b>	<b><u>Structural</u></b>	<b><u>X</u></b>		
<b><u>3.3.3</u></b>	<b><u>Interior Finishes</u></b>	<b><u>X</u></b>		

## Appendix L – Alternative Method for Engineering Analyses

<u>Section</u>	<u>Title</u>	<u>FP Eng. Analysis Process Applicable</u>	<u>Chapter 4 Conditional Section</u>	<u>FP Eng. Analysis Process and Chapter 4 Not Applicable</u>
<u>3.3.4</u>	<u>Insulation Materials</u>			<u>X</u>
<u>3.3.5</u>	<u>Electrical</u>			<u>X</u>
<u>3.3.6</u>	<u>Roofs</u>	<u>X</u>		
<u>3.3.7</u>	<u>Bulk Flammable Gas Storage</u>	<u>X</u>		
<u>3.3.8</u>	<u>Bulk Storage of Flammable and Combustible Liquids</u>	<u>X</u>		
<u>3.3.9</u>	<u>Transformers</u>			<u>X</u>
<u>3.3.10</u>	<u>Hot Pipes and Surfaces</u>			<u>X</u>
<u>3.3.11</u>	<u>Electrical Equipment (Note 1)</u>			<u>X</u>
<u>3.3.12</u>	<u>Reactor Coolant Pumps (Note 1)</u>			<u>X</u>
<u>3.4</u>	<u>Industrial Fire Brigade</u>			
<u>3.4.1</u>	<u>On-Site Fire Fighting Capability</u>	<u>X</u>		
<u>3.4.2</u>	<u>Pre-Fire Plans</u>			<u>X</u>
<u>3.4.3</u>	<u>Training and Drills</u>	<u>X</u>		
<u>3.4.4</u>	<u>Fire Fighting Equipment</u>	<u>X</u>		
<u>3.4.5</u>	<u>Off-Site Fire Department Interface</u>			<u>X</u>
<u>3.4.6</u>	<u>Communications</u>			<u>X</u>
<u>3.5</u>	<u>Water Supply</u>	<u>X</u>		
<u>3.6</u>	<u>Standpipe and Hose Stations</u>	<u>X</u>		
<u>3.7</u>	<u>Fire Extinguishers</u>	<u>X</u>		
<u>3.8</u>	<u>Fire Alarm and Detection Systems</u>			
<u>3.8.1</u>	<u>Fire Alarm</u>	<u>X</u>		
<u>3.8.2</u>	<u>Detection</u>		<u>X</u>	
<u>3.9</u>	<u>Automatic and Manual Water-Based Fire Suppression Systems</u>		<u>X</u>	
<u>3.10.</u>	<u>Gaseous Fire Suppression Systems</u>		<u>X</u>	
<u>3.11</u>	<u>Passive Fire Protection Features</u>		<u>X</u>	
<u>3.11.1</u>	<u>Building Separation (Note 3)</u>			<u>X</u>
<u>3.11.2</u>	<u>Fire Barriers</u>		<u>X</u>	
<u>3.11.3</u>	<u>Fire Barrier Penetrations</u>		<u>X</u>	
<u>3.11.4</u>	<u>Through Penetration Fire Stops (Note 2)</u>		<u>X</u>	

## Appendix L – Alternative Method for Engineering Analyses

<u>Section</u>	<u>Title</u>	<u>FP Eng. Analysis Process Applicable</u>	<u>Chapter 4 Conditional Section</u>	<u>FP Eng. Analysis Process and Chapter 4 Not Applicable</u>
<u>3.11.5</u>	<u>Electrical Raceway Fire Barrier Systems (ERFBS)</u>		<u>X</u>	

Note 1 – Separate clarifications [TBD] will be used to clarify the applicability of engineering analyses to the requirements of Section 3.3.11 and 3.3.12 of NFPA 805.

Note 2 – Through penetration fire stops referenced in Section 3.11.4 of NFPA 805 are considered conditional based upon NFPA 805 Chapter 4 requirements, since they are integral to fire barriers (Section 3.11.2)

Note 3 – Section 3.11.1 of NFPA 805 contains an exception for performance-based analysis. The process in this FAQ is not applicable.

### L.3 Example

Section 3.6.1 of NFPA 805 requires a hose system to be installed per NFPA 14. Using this process/method, a hose system must be available and have access to “all power block buildings,” and must also be a Class III standpipe, but may deviate from other specific requirements of NFPA 14. These deviations must not contradict other text in Chapter 3 of NFPA 805. The NFPA 805 change evaluation process will be used to ensure that nuclear safety performance goals, objectives and criteria are satisfied along with defense-in-depth and safety margins, as described in 10 CFR 50.48(c)(2)(vii).

### L.4 Justification

Since this process/method will be approved by the NRC as part of the 10 CFR 50.90 submittal, it will meet the legal requirement of 10 CFR 50.48(c)(2)(vii). The basis for the change evaluation to be included in the 10 CFR 50.90 submittal will be that each individual change will be evaluated against the NFPA 805 change process (NFPA 805 performance goals / objectives /criteria, defense-in-depth and safety margins evaluation), and providing this flexibility does not adversely impact the features required by Chapter 3 of NFPA 805 to ensure the NFPA 805 performance goals, performance objectives, and performance criteria are satisfied. By only allowing changes to the secondary codes and listings, the changes are bounded. All features required by Chapter 3 will continue to be required (unless specifically addressed separately from this process in an LAR). Secondary features may be changed based on an evaluation, using the required methods in a similar manner that was previously allowed under the Generic Letter 86-10 license condition, without prior NRC approval.

The method will ensure that the following requirements are met:

## Appendix L – Alternative Method for Engineering Analyses

<u>10 CFR 50.48(c)(2)(vii) Requirement</u>	<u>Method of Accomplishment</u>
<u>(a) The required NFPA 805 performance goals, performance objectives, and performance criteria are satisfied.</u>	<u>The fire protection engineering analysis process includes the assessment of impact on NFPA 805 performance goals, performance objectives, and performance criteria are satisfied. Impact will be assessed per risk-informed, performance-based change process in NEI 04-02 Chapter 5 and Appendices I and J and supplemented by RG 1.205 Section 3.2.</u>
<u>(b) Safety margins are maintained.</u>	<u>Maintaining safety margins will be ensured using the risk-informed, performance-based change process in NEI 04-02 Chapter 5 and Appendices I and J and supplemented by RG 1.205 Section C.3.2.</u>
<u>(c) Fire protection defense-in-depth is maintained.</u>	<u>Maintaining fire protection defense-in-depth will be ensured using the risk-informed, performance-based change process in NEI 04-02 Chapter 5 and Appendices I and J and supplemented by RG 1.205 Section C.3.2.</u>

## Appendix L – Alternative Method for Engineering Analyses

The LAR will contain the following information per Regulatory Guide 1.205 Section C.3.2.3:

<b><u>RG 1.205 Guidance</u></b>	<b><u>Method of Accomplishment</u></b>
<u>(a) detailed description of the alternative risk-informed, performance-based method</u>	<p>The process is not considered an "alternative method". Existing risk-informed, performance-based methods will be applied, but for a limited scope of NFPA 805 Chapter 3 sections:</p> <ul style="list-style-type: none"> <li>▪ <u>When the Chapter 3 requirements are conditional based upon NFPA 805 Chapter 4; and</u></li> <li>▪ <u>For deviations from the NFPA codes and listings for rated components mentioned in NFPA 805.</u></li> </ul>
<u>(b) description of how the method will be applied, the aspects of the FPP to which it will applied, and the circumstances under which it will be applied</u>	<p>Risk-informed, performance based fire protection engineering analyses will be allowed to be applied:</p> <ul style="list-style-type: none"> <li>▪ <u>When the Chapter 3 requirements are conditional based upon NFPA 805 Chapter 4; and</u></li> <li>▪ <u>For deviations from the NFPA codes and listings for rated components mentioned in NFPA 805.</u></li> </ul>
<u>(c) acceptance criteria, including risk increase acceptance criteria, that the licensee will apply when determining whether the results of an evaluation that uses this methodology meet the required NFPA 805 performance goals, performance objectives, and performance criteria</u>	<u>Acceptance criteria for changes will use the risk-informed, performance-based change process in NEI 04-02 Chapter 5 and Appendices I and J (and supplemented by RG 1.205 Section 3.2).</u>
<u>(d) for PSA-based methodologies, an explanation of how the PSA is of sufficient technical adequacy for evaluation of the changes to which it will be applied</u>	<u>Technical adequacy of the PSA used in the risk-informed, performance-based approach will be in accordance with RG 1.205.</u>
<u>(e) for PSA-based methodologies, a description of the peer review and how the review findings have been addressed</u>	<u>Peer review of the PSA used in the risk-informed, performance-based approach will be in accordance with RG 1.205.</u>

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### **L.5 Conclusion**

This process/method will permit a risk-informed, performance-based approach to evaluate Fire Protection Program changes within the bounds of secondary codes and listings or changes that are conditional based on NFPA 805 Chapter 4. Following NRC approval of a 10 CFR 50.90 license amendment, this process/methodology will permit licensees to evaluate fire protection features without prior NRC approval. Other issues, not involving NFPA codes or listings or changes that are not conditional based on NFPA 805 Chapter 4, would have to be submitted for NRC approval on a case by case basis.



Brandon,

Please distribute to the Task Force as you see fit.

Thanks,

Chuck

Charles Moulton  
Fire Protection Engineer  
NRR/DRA/AFPB  
Phone: 415-2751  
Mailstop: O11A11

**Mail Envelope Properties** (462E685C.471 : 12 : 9706)

**Subject:** Meeting summary for March FAQ meeting (contains ADAMS numbers for handouts)

**Creation Date** 4/24/2007 4:28:12 PM

**From:** Charles Moulton

**Created By:** CEM4@nrc.gov

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Attachment 1:

April 17, 2007

MEMORANDUM TO: Sunil D. Weerakkody, Branch Chief  
Fire Protection Branch  
Division of Risk Assessment  
Office of Nuclear Reactor Regulation

FROM: Charles Moulton, Fire Protection Engineer */RA/*  
Fire Protection Branch  
Division of Risk Assessment  
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF MARCH 22, 2007, CATEGORY 2 MEETING ON  
FREQUENTLY ASKED QUESTION PROCESS REGARDING  
NATIONAL FIRE PROTECTION ASSOCIATION STANDARD 805

On March 22, 2007, the U.S. Nuclear Regulatory Commission (NRC) staff held a meeting with stakeholders and the public to discuss frequently asked questions (FAQs) at plants that are adopting National Fire Protection Association Standard 805. Licensees introduced and discussed revised versions of two FAQs at this meeting and provided a written response to previous NRC staff comments regarding one FAQ. The staff presented and discussed written responses to four FAQs. Licensees and NRC staff also discussed the remaining open FAQs. The participants determined that both industry stakeholders and the NRC staff needed to continue to work on the remaining open FAQs.

All participants agreed that the next monthly meeting should occur on April 17, 2007, via teleconferencing, and that the May meeting should occur on May 17, at Nuclear Energy Institute (NEI) headquarters. The April meeting was subsequently rescheduled to April 26, to accommodate participants' schedules.

The revised FAQs and written responses introduced at the meeting are available in the Agencywide Documents Access and Management System. The accession numbers for the revised FAQs are ML070800007 and ML070850610. The response to previous comments is available at ML070850658. The accession numbers for the NRC staff responses are ML070660071, ML070640544, ML070640555, and ML070640562. The NEI 805 Task Force FAQ Log, a meeting handout, is available at ML070800236.

A list of meeting attendees is enclosed with this memorandum.

Enclosure:  
As stated

CONTACT: Charles Moulton, NRR/DRA  
301-415-2751

MEMORANDUM TO: Sunil D. Weerakkody, Branch Chief  
Fire Protection Branch  
Division of Risk Assessment  
Office of Nuclear Reactor Regulation

FROM: Charles Moulton, Fire Protection Engineer  
Fire Protection Branch  
Division of Risk Assessment  
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF MARCH 22, 2007, CATEGORY 2 MEETING ON  
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A list of meeting attendees is enclosed with this memorandum.

Enclosure:  
As stated

CONTACT: Charles Moulton, NRR/DRA  
301-415-2751

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NAME	CMoulton	SWeerakoddy
DATE	4/ 17 /07	4/ 17 /07

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**NATIONAL FIRE PROTECTION ASSOCIATION STANDARD 805  
FREQUENTLY ASKED QUESTION PROCESS  
LIST OF ATTENDEES**

March 22, 2007

**U.S. Nuclear Regulatory Commission Staff**

A. Klein  
C. Moulton  
D. Frumkin  
G. MacDonald\*  
J. Hyslop  
P. Fillion\*  
P. Lain  
R. Gallucci  
T. Dinh

**OTHER**

A. Afzali (PG&E)  
A. Holder (Progress)  
A. Ratchford (Kleinsorg Group)  
B. Jamar (NEI)  
C. Worrell (Westinghouse)  
D. Miskiewicz (Progress)  
E. Kleinsorg (Kleinsorg Group)  
F. dePeralta-Meister (Tri-en Corp)  
G. Cooper (Constellation)  
J. Ertman (Progress)  
J. Lattner (Southern Nuclear)  
J. Masterlark (NMC)  
J. Riley (NEI)  
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\*participated via phone

ENCLOSURE

Brandon,

Attached are NRC handouts for the telecon on Thursday.

Included are comments on FAQs and a sample from the RIS, as well as lists of the ADAMS numbers for FAQ s and FAQ related documents.

There may be additional comments on FAQ 12 ready in time for the call.

Please distribute to the 805 Task Force.

Thanks,

Chuck

Charles Moulton  
Fire Protection Engineer  
NRR/DRA/AFPB  
Phone: 415-2751  
Mailstop: O11A11



**Mail Envelope Properties** (462E686A.9CD : 12 : 9706)

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**Creation Date** 4/24/2007 4:28:26 PM  
**From:** Charles Moulton

**Created By:** CEM4@nrc.gov

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nrc.gov TWGWPO01.HQGWDO01 4:28:26 PM PWL CC (Paul Lain)	Delivered	4/24/2007
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nrc.gov TWGWPO04.HQGWDO01 4:28:34 PM SDW1 CC (Sunil Weerakkody)	Delivered	4/24/2007
12:48:36 PM	Opened	4/26/2007

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FAQ Meeting Documents ADAMS Numbers.doc	39424	4/24/2007
4:06:46 PM		
RIS sample.doc	25088	4/24/2007 8:12:12 AM
FAQ 06-0008, R3 NRC comments.doc	25088	4/23/2007
10:54:22 AM		
FAQ 06-0008, R4 NRC comments.doc	23552	4/24/2007
9:23:16 AM		
FAQ 06-0012, R2 NRC comments.doc	27136	4/24/2007
3:53:44 PM		
FAQ 06-0024 NRC comments.doc	24576	4/23/2007
11:17:36 AM		

FAQ 06-0026 NRC comments.doc  
11:15:44 AM

25088

4/23/2007

**Options**

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**Return Notification:** None

**Concealed Subject:** No  
**Security:** Standard

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Attachment 1:

## FAQs

FAQ #	Rev.	ADAMS #
06-0001	0	ML061440419
06-0002	0	ML061440420
	1	ML063170357
	2	ML063350515
06-0003	0	ML061440422
	1	ML063170355
06-0004	0	ML061440430
06-0005	0	ML062350095
	1	ML063180544
06-0006	0	ML062350109
	1	ML063170360
	2	ML063540308
06-0007	0	ML062350121
	1	ML070030325
	2	ML070510442
06-0008	0	ML062860250
	1	ML070510499
	2	ML070800007
	3	ML071020160
	Att.	ML071020169
	4	ML071080099
06-0011	0	ML062890271
	1	ML070510505
06-0012	0	ML062860255
	1	ML063170362
	2	ML070850610
06-0016	0	ML070030348
	1	ML071020174
06-0017	0	ML070030383
06-0018	0	ML070030427
		ML071020181
06-0019	0	ML070030437
06-0020	0	ML070030443
06-0021	0	ML070030457
06-0022	0	ML070030459
06-0023	0	ML070030470
06-0024	0	ML070030472
06-0025	0	ML070030476
06-0026	0	ML070030480
06-0028	0	ML070030489

Attachment 2:

## FAQ Meeting Notices and Summaries

Month	Doc.	ADAMS #
July	MN	ML061870560
	MS	ML062080126
August	MN	ML062200116
	MS	ML062400278
September	MN	ML062510281
	MS	ML062900031
October	MN	ML062850488
	MS	ML063350031
November	MN	ML063120170
	MS	ML063410377
December	MN	ML063390132
	MS	ML070220420
January	MN	ML070040380
	MS	ML070360630
February	MN	ML070290267
	MS	ML070640531
March	MN	ML070640417
	MS	ML071090164
April	MN	ML070920255

Attachment 3:

## **Issue 2: Issue Summary**

A plant transitioning to the 10 CFR 50.48(c) fire protection licensing basis noted that 10 CFR 50.48(c) appears to require prior NRC approval of all fire protection plant and program changes governed by NFPA 805, Chapter 3. The licensee noted that this appears to be more restrictive than the plant's current deterministic requirements which permit fire protection plant and program changes without prior NRC approval when those changes are acceptable based on the standard license condition provided in Generic Letter 86-10, "Implementation of Fire Protection Requirements." The licensee requested staff clarifications with respect to (a) deviations from Chapter 3 deterministic requirements which are relied upon meet requirements in Chapter 4, and (b) licensee's ability to create processes address lower tier guidance such NFPA and UL in relation to the Chapter 3 deterministic requirements.

### Resolution of Issues

With respect to Item (a) above, NRC staff concluded that changes to some features of Chapter 3 of NFPA 805 do not need NRC prior approval. There are various sections of Chapter 3 of NFPA 805 that are only required to meet the performance or deterministic requirements of Chapter 4 of NFPA 805. Specifically NFPA 805 Sections 3.8.2, 3.9 through 3.11, excluding section 3.11.1. R.G. 1.205 includes a proposed license condition for making changes to NFPA 805, Chapter 4 requirements. The resolution of this issue is that since the Chapter 3 features are only required due to these features being needed for Chapter 4, these features may be modified without prior NRC approval when the change process, which applies to Chapter 4, is applied to the Chapter 3 changes.

With respect to Item (b) above, the NRC staff concluded that it is acceptable to, following the approval of a license amendment on the subject, allow the licensees to make changes to the requirements of Chapter 3 of NFPA 805 that involve independent listing laboratory certifications and associated NFPA standards. There are various sections of Chapter 3 of NFPA 805 that include references to independent laboratory listings (such as Underwriters Laboratories, Inc.) and to associated NFPA standards. Licensees may submit a license amendment proposing a process by which they may make changes to the listings and NFPA standards described in Chapter 3 of NFPA 805 without prior NRC approval. The process must include the bounds of the application of the process, specifically that it only applies to listings and other NFPA standards, and also an approach meeting 10 CFR 50.48(c).2.vii, (A), (B) and (C). Changes to other portions of Chapter 3 of NFPA 805 would continue to require individual 50.90 amendments addressing the specific deviation.

FAQ 06-0008, Revision X, submitted to the NRC on X/XX/2007, (ADAMS accession number ML07XXXXXX) is consistent with these resolutions and the current NRC staff positions, which were adopted in RG 1.205.



Attachment 4:

Dan's comments on Rev 3:

- Break down section 3.8 (similar to the way they itemized 3.11), since my reading of the chapter 4 exclusion to section 3.8 only applies to 3.8.2. I believe that the other sections of 3.8 fall under the NFPA code exclusion.
- 3.11.1 is not subject to the Chapter 4 exclusion.
- In the table on page 6, it states at the top of the first column 50.48(c) requirement, this should be 50.48(c).2.vii requirement.
- In the 1.205 table (on page 7), the statement, "once the process is added . . ." may be problematic. I don't see this as a show stopper, but the NRC staff needs to look into the implications of this not being complete. There is a cart before the horse issue here; which comes first: the RIS or the updated 04-02/RG 1.205? My thought is that we need to have the process attached to the FAQ so we can say that it is okay in the RIS. Process wise, you may not be able to have open ended statements in this type of document.
  - Suggestion: I think the answer to this question on 1.205 is that an alternative method will not be used. c.2.vii does not require an alternative method. So the open ended statement could be replaced with a statement like, "an alternative method is not proposed, the existing performance-based methods will be applied, but will be applied in a very limited fashion to (nfpa codes and listings)." Do you think that this will fly?
- The added tables were looked at pretty closely during an older revision, so assuming nothing has changed there, they should be okay.

Attachment 5:

**NEI Proposed Wording (Page 15, 1st paragraph)**

This Appendix is based upon Frequently Asked Question 06-0008, Revision [TBD], approved by the NRC in Closure memo dated [TBD], as documented in Regulatory Issues Summary (RIS) 2007-[TBD], dated [TBD] ADAMS Accession No. [TBD].

**Staff Response**

It is improper to say that anything is “approved” by a closure memo. A planned Regulatory Issue Summary will document the agency-wide endorsement.

Replace the above NEI proposal with the following.

**Staff Proposed Wording**

PLACEHOLDER FOR A DESCRIPTION OF NRC POSITION ON THIS FAQ.

DRAFT

Attachment 6:

**NEI Proposed Wording (page 8 of 13, near bottom)**

Operator manual actions to address spurious actuations in the credited safe shutdown success path are allowed, as long as the spurious actuation does not disable the credited function and the credited function does not become disabled during the time it takes to perform the operator manual action. See Figures B-7 and B-8

**Staff Response**

The examples noted in the figures would meet III.G.2 requirements. However, the verbal description leaves open the possibility of examples which would not meet III.G.2 requirements. Section III.G.2 states:

“where cables or equipment, including associated non-safety circuits that could prevent operation or cause maloperation due to hot shorts, open circuits, or shorts to ground, of redundant trains of systems necessary to achieve and maintain hot shutdown conditions are located within the same fire area outside of primary containment, one of the following means of ensuring that one of the redundant trains is free of fire damage shall be provided”

By the NEI verbiage, components directly in a success path would be allowed to maloperate, so long as the credited function is not disabled. This does not meet the “prevent operation or cause maloperation” requirement of III.G.2 as, for example, a spurious closure of a flowpath valve would prevent operation yet meet the verbiage. The two examples were examples of flow diversions, with the credited flowpath unaffected. For example, in figure B-8, if one of the MOVs in the credited flowpath maloperated and closed, and could be manually reopened, it could, by analysis, meet the “does not disable the credited function and the credited function does not become disabled during the time it takes to perform the operator manual action” criterion. It would not meet III.G.2 as it would “prevent operation or cause maloperation” of the required flowpath (timing is not considered).

**Staff Proposed Wording (Red - deletions, Blue - additions)**

Operator manual actions to address spurious actuations ~~in-the~~ **that affect the** credited safe shutdown success path are allowed, as long as the spurious actuation ~~does-not disable-the~~ **is not directly in the protected train of the** credited function **(e.g., the main flowpath, as opposed to a diversionary flowpath)** and the credited function does not become disabled during the time it takes to perform the operator manual action. See Figures B-7 and B-8

**Additional Staff Comment**

- Delete paragraphs that paraphrase RIS 2006-10 from the proposed edits to NEI 04-02 sections.

Attachment 7:

**Clarification of Required Space Around Electrical Equipment and Definition of "Energized Electrical Equipment", NFPA 805 Section 3.3.11**

**Summary of issue**

Clarification of NFPA-805, Standard for Fire Protection for Light Water Reactor Electric Generating Plants (2001 Edition), Chapter 3, Section 3.3.11 Electrical Equipment, "Adequate clearance, free of combustible material, shall be maintained around energized electrical equipment."

**Specifically, clarify what is "adequate clearance", and "energized electrical equipment" to be used during reviews associated with Chapter 3 transition.**

**Proposed Resolution of FAQ and basis for the proposal:**

This FAQ asks to clarify the definition of, "Adequate clearance", and "energized electrical equipment", where used in Chapter 3. There is no existing fire protection regulatory guidance to readily lend these definitions. Therefore, adequate clearance would be defined as 3'-0" based on similar guidance found in (OSHA) 29CFR1910.303, Subpart S, Electrical. In the case where a plant has existing administration controls for combustible materials "adequate" would be as defined therein (the procedure having been review, approved and based on some degree of previous evaluation, analysis or defined engineering judgment).

Likewise, "Energized Electrical Equipment", would be defined for the purposes of Chapter 3 transition, to be that equipment identified in Bin 15 of the Fire PRA (ref.: NUREG 6850, Fire PRA Methodology for Nuclear Power Facilities).

**NEI proposed wording**

Where used in Chapter 3, the term "Adequate Clearance" is defined as, 3'-0" based on similar guidance found in (OSHA) 29CFR1910.303, Subpart S, Electrical.

Where used in Chapter 3, the term "Energized Electrical Equipment", is defined as, equipment identified in Bin 15 of the Fire PRA (ref.: NUREG/CR-6850, Fire PRA Methodology for Nuclear Power Facilities).

**Staff Response**

The licensee proposal is defining the term "Adequate Clearance" based on OSHA guidelines.

These guidelines apply to workers health and safety; they do not apply to fire hazards at nuclear power plants. During the 1/18/2007 meeting, the licensee agreed that OSHA guidelines were not relevant and also agreed to resubmit this FAQ.

The licensee proposal is defining the term "Energized Electrical Equipment" as equipment identified in Bin 15 of the Fire PRA. What is the basis for using only Bin 15 to define the term "Energized Electrical Equipment"?



Attachment 8:

**Clarification of "conform with the applicable NFPA standards" in regard to fire fighting equipment, NFPA 805 Section 3.4.4**

**Summary of issue**

Clarification of NFPA-805, Standard for Fire Protection for Light Water Reactor Electric Generating Plants (2001 Edition), Chapter 3, Section 3.4.4, Fire Fighting Equipment, "Protective clothing, respiratory protective equipment, radiation monitoring equipment, personal dosimeters, and fire suppression equipment such as hoses, nozzles, fire extinguishers, and other needed equipment shall be provided for the industrial fire brigade. This equipment shall conform with the applicable NFPA standards."

**Specifically, clarify that the intent of "conform with the applicable NFPA standards", is for specification and procurement aspects of the equipment**

**Proposed Resolution of FAQ and basis for the proposal**

This FAQ asks to clarify that the intent of "conform with the applicable NFPA standards", as they relate to fire brigade equipment. Applicable NFPA standards are addressed in FAQ #06-0020. Because the NFPA standards related to fire brigade equipment have evolved greatly beyond the CLB for plants, and in light of the fact that nuclear power plant fire fighting equipment is exposed to limited actual field use, it is not reasonable to require some of the maintenance activities and periodicities that are applied to equipment used by municipal fire departments and therefore contained in some NFPA standards. Rather, the industry recognizes and agrees that equipment should be purchased to NFPA standards, in force at the time of purchase. Along with this reasonable care and maintenance of equipment should be determined and implemented based on the actual level of field usage (ref. guidance found in IN-200012, Potential Degradation of Firefighter Primary Protective Garments).

**NEI proposed wording**

Where used in section 3.4.4, the term, "conform with the applicable NFPA standards", is to be limited to the specification and procurement of firefighting equipment, and those NFPA standards in effect at the time of purchase for that equipment, care and maintenance will be determined by the licensee based on equipment condition and performance.

**Staff Response**

The staff does not agree with the proposal that: "conform with the applicable NFPA standards" be limited to "specification and procurement", and that "care and maintenance" be determined by the licensee based on equipment condition and performance.

Deviations from these NFPA standards should use the Fire Protection Engineering Analysis process/method outlined in the resolution of FAQ 06-0008.

Consequently, the staff suggests that FAQ # 06-0026 be withdrawn.

Chuck, I've attached an updated FAQ Log per your request.

Task Force Participants: 4/26/07 FAQ Telecon

B. Jamar, NEI

R. Dible, Areva

T. Shudak, NPPD

A. Ratchford, Kleinsorg Group

E. Kleinsorg, Kleinsorg Group

G. Cooper, Constellation

C. Worrell, Westinghouse

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J. Vance, Southern

J. Ertman, Progress

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**Subject:** Updated FAQ Log and NFPA 805 Task Force list of participants  
- 4/26/07 Public Meeting

**Creation Date** 4/27/2007 9:06:17 AM

**From:** "JAMAR, Brandon" <btj@nei.org>

**Created By:** btj@nei.org

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Attachment 1:

FAQ #	Revision		Name	Summary	Actions and Notes	Priority	Submitter		Reviewer	Status			Approval	
	Submitted	Working					Plant	Licensee Contact	NRC	NEI TF	NRC	Submittal Date	Tentative	Final
06-0001	0	0	Alternate method for Engineering Evaluations	Add in clarification that fire affected train manual actions are 'allowed' and therefore do not require evaluation.	NRC rejected the statements regarding SER approval without Exemptions  Tentatively approved.  Superceded by FAQ 06-0012.	Closed	Harris Nuclear Plant	Ertman		Submitted to NRC	Closed	4/25/2006	Closed ML06348016 9	Closed ML06348016 9
06-0002	1c	1c	NEI 04-02 Section 5.3.3 and App. I, Order of Questions for Change Analysis Screening	Change Figure 5-1, text, and Appendix I to ask the Chapter 4 questions before Chapter 3 questions.	NRC agreed in principle, however wanted wording clarified to "make clear the distinction between Chapter 3 requirements that are subject to Chapter 4 evaluations versus the Chapter 3 requirement that are independent of Chapter 4" added clarification to 'boxes' at end of Questions 1 and 2 in Change Analysis Form  NRC added 'included required recovery actions to text of 5.3.3 and added 'including Human actions' to Question 4.e of Change Analysis Form  Task Force agrees to first request. Task force is evaluating the addition of NRC rejected the statements regarding SER approval without Exemptions  Committed to revise based on RIS 2006-10 and NRC Public Meeting June 9, 2006. See RIS 2006-12 'human actions' to the risk screening questions. - tentatively approved - will resubmit 10/26/06	Closed	Harris Nuclear Plant	Ertman	Gallucci	Submitted to NRC	Closed	4/25/2006 10/26/2006	10/26/2006	Closed
06-0003	1b	1b	Change Analysis Screening	Change 'greater than minimal' to 'potentially greater than minimal'		Closed	Harris Nuclear Plant	Jeff Ertman	Gallucci	Submitted to NRC	Closed	4/25/2006 10/26/2006	10/26/2006	Closed
06-0004	0	1	Clarify NFPA 805 Chapter 4 and 3 relationship for 'required' FP systems/features	How fire protection systems and features transition is highly dependent on how they are 'required' to meet the nuclear safety criteria of Chapter 4.	Note NRC was using NEI 04-02 Revision 2H figures and not figures in FAQ 06-0004  NRC to re-review in appropriate context & provide status on 10/26/06  Received NRC comments 11/29/06. Resubmitted to NRC and returned with comments. Currently under TF review.	M	Harris Nuclear Plant	Jeff Ertman	Frumkin	TF to resubmit June 2007 in conjunction w/ B.3 tables	Comments provided on R0	5/12/2006		
06-0005	1	1	Guidance on FPP-related changes	NEI 04-02 does not provide guidance what should be considered a FPP-related change or not. Since failure to obtain NRC pre-approval for using risk reductions from a non-FPP related change would be contrary to the guidance in RG 1.205, additional guidance should be provided to clarify what is considered a FPP-related change once NFPA-805 is implemented.	FAQ has been revised.  Resubmit to NRC 11/30/06 - waiting for NRC response as of April 07	H	Harris Nuclear Plant	Ertman	Frumkin	TF waiting for NRC comments	Plan to comment	8/24/2006 11/30/2006		



06-0006	2	2	High-low pressure interface definition and NEI 00-01/NFPA 805 discrepancies	Definition of High-Low Pressure interface is not consistent between NFPA 805 and NEI 00-01. Need to provide clarification.	Received NRC comments on R1, R2 Resubmit 12/19/06 - Definition change per NRC request. Closure process has begun. Draft closure letter was commented on by TF. NRC accepted TF clarification.	M	Duke	Barrett	Dinh		Draft closure letter issued	8/24/2006 12/19/2006	1/18/2007	
06-0007	2	2	NFPA 805 Chapter 3 Requirements for Fire Brigades	Need clarification on when NFPA 600 or NFPA 1500 apply. Also clarify if requirements apply to interior structural fire fighting brigade.	FAQ to be revised to mark up NEI 04-02 to show the addition of an appendix for NFPA 805 clarifications. NRC R2 comments by May 07	M	Harris Nuclear Plant	Holder	Lain	Waiting for NRC comments on R2	Comments provided on R1	2/15/2007		
06-0008	4a	4a	Alternate method for Engineering Evaluations	Many Generic Letter 86-10 evaluations exist at facilities today. Transition of these existing evaluations is essential for the success of the Pilot Plants. In addition the use of engineering evaluations for Chapter 3 issues post transition needs to be clarified.	Presented 9/28/06  Comments received from NRC on 11/29/06. Clarification call scheduled. Resubmit to NRC by 02/07 R4a comments received and will incorporate NRC recommendations. R5 by early May.	H1	NEI	Ratchford	Frumkin	R5 planned submit by early May	Comments provided on R4a	2/15/2007 3/20/2007 3/30/2007		
06-0009			NEI 04-02 Typo Corrections	Editorial changes to NEI 04-02	Projected submittal 2Q/07	L	NEI	Kleinsorg						
06-0010			Incorporate Regulatory Guide 1.205 Baseline concept into NEI 04-02	Based on changes to Regulatory Guide 1.205, NEI 04-02 needs to reflect the baseline risk	Projected submittal 3Q 2007	L	NEI	Ertman						
06-0011	1b	1b	Clarify III.G.3 Compliance Transition	Alternative Shutdown is not specifically addressed in NFPA 805.	Approved by Task Force Reviewers. Submitted to NRC 9/28/06. Under NRC review.  Comments received from NRC on 11/29/06. Need time for TF review. Rewrite w/consideration for NRC comment #2 - Resubmit Feb. '07. Possible closure by May	H2	NEI	Jutras	Frumkin	TF waiting for NRC comments on R1b	Comments provided on R0	2/15/2007		
06-0012	2b	2b	Clarify Manual Action Transition in Appendix B	Some manual actions are either allowed by the current regulation or have been	Submitted to NRC 9/28/06. Resubmit 10/26/06 as combined with FAQ 06-0001  Comments received from NRC on 11/30/06. With TF for review. Revision by May '07. NRC comments on R2b warrant R3. Will have by May 07	H3	NEI	Kleinsorg	Barbadaro	R3 planned	Comments provided on R2b	9/28/2006 10/26/2006 3/22/07		
06-0013			Clarify Chapter 4 Methodology Transition Process Bases on Pilot Plant Results		Will be presented at 2006 HNP Pilot meeting. Duke to submit end of Second Quarter 2007	L	NEI							
06-0014		0	Cumulative Risk	Regulatory Guide 1.205 requires tracking of changes to assess cumulative risk. NEI 04-02 does not provide guidance on this issue	With FPRA TF for comment - 12/14/06	L	NEI	Miskiewicz		FPRA TF has action				

06-0015		0	Guidance on not-red determination	Process for determining if non-compliances found during the transition process are 'not red' needs to be simplified.	Sent to Task Force for review 11/30/06 With FPRA TF for review- 12/14/06 Ken Heffner to provide regulatory input to this FAQ by 12/14/06 Amir Afzali to provide PRA screening criteria for 'not red' determination by 12/14/06	L	NEI	Afzali		FPRA TF has action				
06-0016	1	1	Ignition Source counting guidance for Electrical Cabinets	Clarification/enhancement of Ignition Source counting guidance for Electrical Cabinets in NUREG/CR-6850, supporting NFPA-805 Fire PRA application.	Presented at November 2006 pilot meeting Submitted to Task Force 11/30/06. Comments from Task Force to initiator by 12/14/06 Submitted to NRC 12/19/06 Preliminary verbal comments provided by NRC. Potential disagreement on the examples provided in the FAQ were discussed by Ray Gallucci of the NRC. Kiang Zee provided feedback that the examples were intended to be taken collectively and were intended to be drawn to scale.	H	HNP	Miskiewicz	Gallucci	Submitted R1 to NRC	R1 accepted. Closed	12/19/2006		
06-0017	0	0c	Ignition Source counting guidance for High Energy Arcing Faults (HEAF)	Clarification/enhancement of Ignition Source counting guidance for High Energy Arcing Faults (HEAF) in NUREG/CR-6850, supporting NFPA-805 Fire PRA application.	Presented at November 2006 pilot meeting Submitted to Task Force 11/30/06. Comments from Task Force to initiator by 12/14/06 Submitted to NRC 12/19/06 Preliminary verbal comments provided by NRC. Preliminary comments indicated a recommending splitting of HEAFs into a low voltage and high voltage bins. In addition, a new frequency is being considered for bus ducts.	H	HNP	Miskiewicz	Gallucci	FPRA TF will split the FAQ into two items and resubmit in early May		12/19/2006		
06-0018	1	1	Ignition Source counting guidance for Main Control Board (MCB)	Clarification/enhancement of Ignition Source counting guidance for Main Control Board (MCB) in NUREG/CR-6850, supporting NFPA-805 Fire PRA application	Presented at November 2006 pilot meeting Submitted to Task Force 11/30/06. Comments from Task Force to initiator by 12/14/06 Submitted to NRC 12/19/06 Preliminary verbal comments provided by NRC. Preliminary comments indicated more focus on counting just "horseshoe" cabinets as MCBs.	H	HNP	Miskiewicz	Gallucci	Submitted R1 to NRC	R1 accepted. Closed	12/19/2006		
06-0019	0	0c	Define "power block" and "plant"	Define where used in Chapter 3, "power block" and "plant" are intended to mean "areas in which a fire could jeopardize the ability to meet the performance criteria described in section 1.5."  3.3.1.2 Control of Combustible Materials (1)Wood used within the power block shall be listed pressure-impregnated or coated with a listed fire-retardant application. Exception: Cribbing timbers 6 in. by 6 in. (15.2 cm by 15.2 cm) or larger shall not be required to be fire-retardant treated.	Presented to Task Force 11/30/06 Comments from Task Force to initiator by 12/14/06 Submitted to NRC 12/19/06 Comments to be provided by NRC prior to Feb. 2007 meeting. TF will submit new revision by May 2007	H	HNP	Holder	Dinh	TF revising FAQ 19 R0c submit by May 07	Comments provided on R0	12/19/2006		

06-0020	0	0c	Definition of "applicable"	(6) Controls on use and storage of flammable gases shall be in accordance with applicable NFPA standards.	Presented to Task Force 11/30/06	H	HNP	Holder	Dinh	TF revising FAQ 20 R0c submit by May 07	Comments provided on R0	12/19/2006		
06-0021	0	1a	Clarify that air drops are acceptable.	3.3.5.2 - Only metal tray and metal conduits shall be used for electrical raceways. Thin wall metallic tubing shall not be used for power, instrumentation, or control cables. Flexible metallic conduits shall only be used in short lengths to connect components.  HNP as well as other plants have exposed cable drops ~ 3' in length.	Presented to Task Force 11/30/06	LL	HNP	Holder	Dinh	TF reviewing NRC comments on R0, R1 planned - submit by May 07	Comments provided on R0	12/19/2006		
06-0022	0	0a	Identify a list of typical flame propagation tests which are considered acceptable.	3.3.5.3 - Electric cable construction shall comply with a flame propagation test as acceptable to the AHJ.	Presented to Task Force 11/30/06 Comments from Task Force to initiator by 12/14/06 Submitted to NRC 12/19/06 Preliminary verbal comments provided by NRC. Additional info on applicability of test requested by NRC.	M	ANO	Puckett	Moulton	TF waiting for NRC comments	Plan to comment	12/19/2006		
06-0023	0	0	Grant exception for Diesel Generator Day Tanks located within Diesel Generator Buildings.	3.3.8 Bulk Storage of Flammable and Combustible Liquids - Bulk storage of flammable and combustible liquids shall not be permitted inside structures containing systems, equipment, or components important to nuclear safety. As a minimum, storage and use shall comply with NFPA 30, Flammable and Combustible Liquids Code.	Presented to Task Force 11/30/06  Submitted to NRC 12/19/06 NRC questioned if issue warranted a FAQ since it is part of plant systems	LL	HNP	Holder	Lain	TF reviewing withdraw - decide by May 07	Proposed withdraw	12/19/2006		
06-0024	0	0	Define what "adequate clearance" is.	3.3.11 Electrical Equipment - Adequate clearance, free of combustible material, shall be maintained around energized electrical equipment.  Need to provide a clearer definition of 'adequate clearance'. Could be based on OSHA 3ft requirement.	Presented to Task Force 11/30/06  Submitted to NRC 12/19/06 Preliminary verbal comments provided by NRC.	M	HNP	Holder	Oudinot	TF reviewing NRC comments on R0	Comments provided on R0	12/19/2006		
06-0025	0	1b	Define minimum acceptable pre-plan scope.	3.4 Industrial Fire Brigade - 3.4.2.1 - The plans shall detail the fire area configuration and fire hazards to be encountered in the fire area, along with any nuclear safety components and fire protection systems and features that are present.  Suggest define more clearly what the minimum acceptable pre-plan scope is. Consider use of existing guidance.	Presented to Task Force 11/30/06 R1b updated 4/19	H	HNP	Holder	Barbadaro	R1 planned submit by May 07	Comments provided on R0	12/19/2006 RESUBMIT March 2007		

06-0026	0	0	Clarify NFPA code requirements for gear maintenance	3.4.4 Fire-Fighting Equipment - Protective clothing, respiratory protective equipment, radiation monitoring equipment, personal dosimeters, and fire suppression equipment such as hoses, nozzles, fire extinguishers, and other needed equipment shall be provided for the industrial fire brigade. This equipment shall conform with the applicable NFPA standards.  Clarify that intent is for design and purchase of equipment. NFPA code requirements for gear maintenance is not applicable.	Presented to Task Force 11/30/06 Comments from Task Force to initiator by 12/14/06 Submitted to NRC 12/19/06 Preliminary verbal comments provided by NRC.	M	HNP	Holder	Oudinot	TF reviewing withdraw - decide by May 07	Proposed withdraw	12/19/2006		
06-0027		0a	Clarify the "where provided" statement.	3.7 Fire Extinguishers - Where provided, fire extinguishers of the appropriate number, size, and type shall be provided in accordance with NFPA 10, Standard for Portable Fire Extinguishers. Extinguishers shall be permitted to be positioned outside of fire areas due to radiological conditions.  Part of NFPA 10 is placement / travel distances for extinguishers. The 'where provided' statement needs clarification.	To TF by Feb 07 Not discussed on 1/18/07	M	ANO	Puckett						
06-0028	0	1a	Clarify intent of "familiarization with plant fire prevention procedures, fire reporting, and plant emergency alarms" regarding scope of or depth of the training.	3.3.1.1 General Fire Prevention Activities - (1) Training on fire safety information for all employees and contractors including, as a minimum, familiarization with plant fire prevention procedures, fire reporting, and plant emergency alarms  Clarify the intent of 'familiarization'.	Presented to Task Force 11/30/06 Comments from Task Force to initiator by 12/14/06 Submitted to NRC 12/19/06 Not discussed on 1/18/07	M	HNP	Alan Holder	Oudinot	R1 planned submit by May 07	Comments provided on R0	12/19/2006		
06-0029		0a	Clarify zone of influence for NUREG 6850 Task 8.	FDT spreadsheets are used to provide a zone of influence.	Submitted to the task force: 12/19/06 Discuss at January 24, 2007 FPRA meeting Not discussed on 1/18/07	M	HNP	Thompson						
07-0030			Risk of recovery actions			M								
07-0031		0	Misc Binning Issues	Miscellaneous ignition frequency binning issues. Questions arise during ignition frequency counting, such as: MOV motors, Hydraulic actuators for valves, Transformers	Draft to NEI TF for April 2007.	M	HNP	Miskiewicz		TF reviewing				

07-0032			10CFR 50.48(a) and GDC 3 clarification	Clarify that satisfying 10 cfr 50.48(c) will satisfy 10 CFR50.48(a) and GDC3	Draft to NEI TF for May 2007.	M	HNP	Holder						
07-0033			Review of Existing Engineering Equivalency Evaluations	Discuss how EEEE will be reviewed and summarized for	Draft to NEI TF for May 2007.	M	HNP	Holder						
07-0034		0	Determination of non-vented Cabinets	Clarification of guidance for determining if an electrical cabinet can be dispositioned as non-vented	Draft to NEI TF for May 2007.	M	HNP	Miskiewicz		TF reviewing				