

**SHEARON HARRIS NUCLEAR POWER PLANT, UNIT NO. 1
DOCKET NO. 50-400/LICENSE NO. NPF-63
FREQUENTLY ASKED QUESTIONS (FAQS), REQUESTING ADDITIONAL
GUIDANCE OR CLARIFICATION REGARDING TRANSITION TO NFPA-805
"PERFORMANCE BASED STANDARD FOR FIRE PROTECTION FOR LIGHT
WATER REACTOR ELECTRIC GENERATING PLANTS"**

NFPA-805 Transition Pilot Plant

FAQ 06-0002

**NFPA-805 Transition Pilot Plant
Frequently Asked Questions
(Template)**

Plant:	<u>Harris Nuclear Plant (HNP)</u>	FAQ # <u>06-0002</u>
Submittal Date:	<u>04-25-06</u>	
Licensee Contact:	<u>Jeff Ertman</u>	Tele/email <u>919-546-3681</u>
NRC Contact:	<u></u>	Tele/email <u></u>

Subject

Interpretive Guidance? Yes / No

Proposed New Guidance not currently in NEI 04-02? Yes / No

Details

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

NEI 04-02, Section 5.3 and Appendix I

Circumstances requiring guidance interpretation or new guidance:

Recommend making nuclear safety questions first in screening reviews in order to determine necessity for Chapters features and systems. Related to FAQ #06-0003.

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

NA

Potentially relevant existing FAQ numbers:

Related to FAQ #06-0003.

Response Section

Proposed Resolution of FAQ and basis for the proposal:

NEI 04-02 Section 5.3 and Appendix I, to reflect the revised order of questions.

If appropriate, provide proposed rewording of guidance for inclusion in next revision.

As follows;

6.3.3 Preliminary Risk Screening

Once the definition of the change is established, a screening is then performed to identify and resolve minor changes to the fire protection program. This screening is consistent with fire protection regulatory review processes in place at nuclear plants under traditional licensing bases. This screening process is modeled after the NEI 02-03 process. This process will address most administrative changes (e.g., changes to the combustible control program, organizational changes, etc.).

The characteristics of an acceptable screening process that meets the "assessment of the acceptability of risk" requirement of Section 2.4.4 of NFPA 805 are:

- The quality of the screen is sufficient to ensure that greater than minimal risk increases receive detailed risk assessments appropriate to the level of risk.
- The screening process must be documented and be available for inspection by the NRC.
- The screening process does not pose undue evaluation or maintenance burden.

If any of the above is not met, proceed to Section 5.3.4 Risk Evaluation.

Appendix I contains an example of a screening process. The screening process is divided into assessing if the change is trivial (Sections 1.a, 2.a, 3.a) and performing a risk screen in Section 4.D. The risk screen identifies and documents the factors that contribute to the risk associated with the change. In general, these factors include changes in: a) frequency of all fire scenarios which are affected by the change, b) magnitude of expected fires, c) detection capability, d) suppression capability, and e) post-fire capability of plant systems to prevent damage to the core.

The impact of the plant change on each of these factors can be evaluated (either qualitatively or quantitatively) and categorized as: "no" impact, "minimal" impact or "potentially greater than minimal" impact. The nature of the change would enable a licensee to choose among the three categories. A licensee may refer to their IPSEE, the fire protection SDP, or other documents to determine whether the change could have "minimal" or "potentially greater than minimal" impact. The licensee should document the basis for the conclusion. For those changes that do not meet the screening criteria a more detailed Risk Evaluation is required.

If a plant change could cause a "potentially greater than minimal" impact with respect to more than one of the above factors, or could result in a common cause impact on more than one of the above factors (a) frequency of all fire scenarios which are affected by the change, b) magnitude of expected fires, c) detection capability, d) suppression capability, and e) post-fire capability of plant systems to prevent damage to the core, licensees are encouraged to perform risk assessments of the more detailed, quantitative variety.

The preliminary risk screening and risk evaluations should also identify decreases in risk that are associated with the change. Depending upon the nature and magnitude of the decrease, consideration should be given to updating the risk model to account for the decrease.

Appendix I - Plant Change Evaluation Form

I. Plant Change Evaluation Form

Page 1 of 2					
LICENSEE NAME			UNITS		
<input type="checkbox"/> SITE A	<input type="checkbox"/> SITE B	<input type="checkbox"/> SITE C	<input type="checkbox"/> Unit 1	<input type="checkbox"/> Unit 2	<input type="checkbox"/> Unit 3
ACTIVITY TITLE/DOCUMENT/REVISION					
Complete each section and summarize results below.					
CONCLUSIONS					
CHANGE EVALUATION SUMMARY			RISK EVALUATION SUMMARY		
<input type="checkbox"/> The change is editorial or trivial in nature. (Screening per Section 1.a, 2.a, or 3.a)			<input type="checkbox"/> The change can be evaluated using a PRELIMINARY RISK SCREEN (Section 4)		
<input type="checkbox"/> The change affects compliance with the Nuclear Safety Criteria of NPPA 805 as defined in [insert reference to the appropriate document] (Section 1). <input type="checkbox"/> Yes <input type="checkbox"/> No			<input type="checkbox"/> Yes <input type="checkbox"/> No		
<input type="checkbox"/> The change affects compliance with the Radioactive Release Criteria of NPPA 805 as defined in [insert reference to the appropriate document] (Section 1). <input type="checkbox"/> Yes <input type="checkbox"/> No			<input type="checkbox"/> The RISK EVALUATION demonstrates that A CDF/LERF are acceptable and defense-in-depth / safety margin are maintained. Therefore, the change is acceptable.		
<input type="checkbox"/> The change affects compliance with a required Fundamental Elements / Minimum Design Requirements of NPPA 805 Chapter 3 (Section 1). License Amendment Required? <input type="checkbox"/> Yes <input type="checkbox"/> No			<input type="checkbox"/> The RISK EVALUATION demonstrates that either the A CDF/LERF are unacceptable and/or defense-in-depth / safety margin are not maintained. Therefore, the change is NOT acceptable.		
SIGNOFFS					
Print Name		Signature		DATE	
SCREEN PREPARER ¹⁹					
Print Name		Signature		DATE	
SCREEN REVIEWER					

Deleted: UTILITY

Deleted: 1

Deleted: 1

Deleted: The change affects compliance with the Nuclear Safety Criteria of NPPA 805 as defined in [insert reference to the appropriate document] (Section 1).
 Yes No
 The change affects compliance with the Radioactive Release Criteria of NPPA 805 as defined in [insert reference to the appropriate document] (Section 3).
 Yes No

CHANGE DESCRIPTION

Provide a brief description of what is being changed and why.

REFERENCES

List applicable references. Include sufficient identifying detail to facilitate independent review and retrieval.

¹⁹ Signoffs should be consistent with the Licensee's processes. For example it may be necessary for a fire protection engineer, PRA engineer, or safe shutdown engineer to have signature authority on the Plant Change Evaluation.

Appendix I - Plant Change Evaluation Form

NUCLEAR SAFETY COMPLIANCE STRATEGY CHANGE QUESTIONS

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

1. Does the proposed change involve a Nuclear Safety Compliance Strategy requirement as defined in [Insert appropriate document reference]?

- Yes - Proceed to Question 1.a.
- No - Document basis and proceed to Question 2.

Deleted: 2

Deleted: 2

Deleted: 3

Deleted: 3

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

- Yes Document basis and stop.
- No Proceed to Question 1.b.

Deleted: 2

b. Does the change meet the deterministic requirements of Chapter 4 of NFPA 805?

- Yes Document basis and complete remaining sections.
- No Proceed to Question 1.c.

Deleted: 2

c. Is the change equivalent to the NFPA 805 Chapter 4 compliance strategy as defined in [Insert appropriate document reference]? Ensure documentation for determination of equivalency is included and meets NEI 04-02 requirements for documentation.

- Yes Document basis and complete remaining sections.
- No Perform a Risk Evaluation.

Deleted: (See Attachment 2)

Changes to Fire Protection Program Fundamental element / minimum design requirements that are required to meet the Nuclear Safety Performance Criteria must be evaluated in Section 3.

Appendix I – Plant Change Evaluation Form

RADIOACTIVE RELEASE 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).

2. Does the proposed change involve a Radioactive Release requirement as defined in [insert appropriate document reference]?

Deleted: 3

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

Deleted: 3

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

- Yes Document basis and stop.
- No Proceed to Question 2.b.

Deleted: 3

b. Does the change meet the requirements of the Radioactive Release criteria?

- Yes Document conclusions and proceed to risk screening.
- No Proceed to Question 2.c.

Deleted: 3

c. Is the change equivalent to the Radioactive Release compliance strategy as defined in [insert appropriate document reference]? Ensure documentation for determination of equivalency is included and meets NEI 04-02 requirements for documentation.

- Yes Document conclusions and proceed to risk screening.
- No Perform a Risk Evaluation.

Deleted: (See Attachment 2)

Changes to Fire Protection Program Fundamental element / minimum design requirements that are required to meet the Radioactive Release Performance Criteria must be evaluated in Section 3.

Appendix I - Plant Change Evaluation Form

PRELIMINARY RISK SCREENING

Considering the proposed change, answer the following questions. The nature of the change should enable you to choose among the three categories. Refer to the IPEEE, a plant-specific fire PRA, or other documents to determine whether the change could have "no", "minimal" or "potentially greater than minimal" impact. Document the basis for the conclusion. The potential for common cause effects of a given plant change on the above factors should be considered. For example, an increase in combustible loading in an area can impact all of the factors. See Attachment 3 for examples.

4.0 Can the change be evaluated using a preliminary risk screen?

a. Does the proposed change impact the FIRE FREQUENCY of any fire scenarios affected by the change?

- No Impact
- Minimal Impact
- Potentially Greater than minimal

b. Does the proposed change impact the MAGNITUDE OF THE EXPECTED FIRES for any fire scenarios affected by the change?

- No Impact
- Minimal Impact
- Potentially Greater than minimal

c. Does the proposed change impact the DETECTION CAPABILITY for any fire scenarios affected by the change?

- No Impact
- Minimal Impact
- Potentially Greater than minimal

d. Does the proposed change impact the SUPPRESSION CAPABILITY for any fire scenarios affected by the change?

- No Impact
- Minimal Impact
- Potentially Greater than minimal

8.09
1.00.05

Appendix I – Plant Change Evaluation Form

- e. Does the proposed change impact the POST-FIRE CAPABILITY OF PLANT SYSTEMS TO PREVENT CORE DAMAGE (including fire affected human actions) during any mode of operation for any fire scenarios affected by the change?
- No Impact
 - Minimal Impact
 - Potentially Greater than minimal

- f. Do any of the risk screening questions have "Potentially greater than minimal" impact, then a detailed quantitative risk evaluation may be required.
- No. The Fire Protection Program Plant change meets the risk-informed acceptance criteria of NFPA 805 Section 2.4.4.
 - Yes, a detailed quantitative risk evaluation is required.

Deleted: G

Note: Changes that clearly decrease risk should be identified during the review for potential updates to the risk model.