

FAQ Number 07-0032

FAQ Revision 0

FAQ Title Clarification of 10 CFR 50.48(c), 50.48(a), and GDC 3

Plant: Harris

Date: May 16, 2007

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☒ 805 TF ☐ FPWG ☐ RATF ☐ RIRWG ☐ BWROG ☐ PWROG

Purpose of FAQ:

The purpose of this FAQ is to clarify that satisfying 10 CFR 50.48(c) will satisfy 10 CFR 50.48(a) and GDC3.

Is this Interpretation of guidance? Yes / ☐ No

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

Details:

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

During the Pilot Observation meetings discussions have been held regarding how requirements for 10 CFR 50.48(a) and GDC 3 are met by implementing NFPA 805 (10 CFR 50.48(c)). Specifically:

- 10 CFR 50.48(a) uses the terms “limit fire damage to structures, systems, or components important to safety so that the capability to shut down the plant safely is ensured”
- GDC 3 uses the terms “Structures, systems, and components important to safety”.
- 10 CFR 50.48(c) uses the term “Important to Nuclear Safety”

NEI 04-02 contains an overview of the 10 CFR 50.48 (c) in Section 2.1 but does not clearly explain how meeting 10 CFR 50.48(c) satisfies 10 CFR 50.48(a) and GDC 3. This guidance needs to be provided to ensure that it is clearly understood that post-transition fire protection systems, features and components are required to meet the ‘nuclear safety performance criteria’.

Circumstances requiring guidance interpretation or new guidance:

The request to clarify how transitioning to a 10 CFR 50.48 (c) licensing basis satisfies 10 CFR 50.48 (a) and General Design Criteria 3 has been requested by the Transitioning Plants.

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

None.

Potentially relevant existing FAQ numbers:

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

Federal Register Notice 69 FR 33536 provides the necessary clarification. This information should be included in Section 2.2.2 of NEI 04-02 and in Appendix H (LAR submittal).

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

See attached:

2.2.2 Relationship to Other Fire Protection Requirements

NFPA 805 is codified as 10 CFR 50.48(c). The new rule was placed deliberately in this location to show how it relates to existing fire protection requirements. The new rule establishes alternative requirements that a licensee may voluntarily adopt instead of continuing to comply with its current fire protection licensing basis. A fire protection program that complies with 10 CFR 50.48 (c), NFPA 805, as adopted by the NRC, is an acceptable alternative to compliance with either 10 CFR 50.48(b) (for plants licensed to operate before January 1, 1979 “Appendix R Plants”), or existing plant fire protection license conditions (10 CFR 50.48(c)(3)(i)) for plants licensed to operate after January 1, 1979 (Post-Appendix R Plants). For plants that have shut down and submitted the certifications required by 10 CFR 50.82(a)(1), compliance with NFPA 805 may be adopted as an acceptable method for complying with 10 CFR 50.48(f).

2.2.3 ~~Alternative Requirements in the New Rule~~

The new rule does not supersede the requirements of GDC 3 or 10 CFR 50.48(a). The new rule provides actions that may be taken to establish compliance with 10 CFR 50.48(a), which requires each operating nuclear power plant to have a fire protection program plan that satisfies General Design Criterion 3 (GDC 3), as well as specific requirements in that section. The NRC in 69 FR 33536 provides the following clarification:

“NFPA 805 does not supersede the requirements of GDC 3, 10 CFR 50.48(a), or 10 CFR 50.48(f). Those regulatory requirements continue to apply to licensees that adopt NFPA 805. However, under NFPA 805, the means by which GDC 3 or 10 CFR 50.48(a) requirements may be met is different than under 10 CFR 50.48(b). Specifically, whereas GDC 3 refers to SSCs important to safety, NFPA 805 identifies fire protection systems and features required to meet the Chapter 1 performance criteria through the methodology in Chapter 4 of NFPA 805. Also, under NFPA 805, the 10 CFR 50.48(a)(2)(iii) requirement to limit fire damage to SSCs important to safety so that the capability to safely shut down the plant is ensured is satisfied by meeting the performance criteria in Section 1.5.1 of NFPA 805. The Section 1.5.1 criteria include provisions for ensuring that reactivity control, inventory and pressure control, decay heat removal, vital auxiliaries, and process monitoring are achieved and maintained.

This methodology specifies a process to identify the fire protection systems and features required to achieve the nuclear safety performance criteria in Section 1.5 of NFPA 805. Once a determination has been made that a fire protection system or feature is required to achieve the performance criteria of Section 1.5, its design and must meet any applicable requirements of NFPA 805, Chapter 3. Having identified the required fire protection systems and features, the licensee selects either a deterministic or performance-based approach to demonstrate that the performance criteria are satisfied. This process satisfies the GDC 3 requirement to design and locate SSCs important to safety to minimize the probability and effects of fires and explosions.”

The transition process described in 10 CFR 50.48(c)(3)(ii) provides, in pertinent parts, that a licensee intending to adopt the new rule must, among other things, “modify the fire protection

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plan required by paragraph (a) of that section to reflect the licensee's decision to comply with NFPA 805." Therefore, to the extent that the contents of the existing fire protection program plan required by 10 CFR 50.48(a) are inconsistent with NFPA 805, the fire protection program plan must be modified to achieve compliance with the requirements in NFPA 805.

A comparison of the current requirements in Appendix R with the comparable requirements in Section 3 of NFPA 805 shows that the two sets of requirements are consistent in many respects. However, there are differences. Among them are the elimination of specific requirements for: (1) emergency lighting; (2) an alternative shutdown capability; and (3) cold shutdown. These topics are addressed in the transition of the nuclear safety performance criteria (Appendix B-2).

H.2 Template: License Amendment Request to Authorize Adoption of NFPA 805 with Optional Provision for Alternative Methods and Analytical Approaches

[Date]

U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Document Control Desk

Subject: **[Facility Name]**
[Facility Docket numbers]
License Amendment Request to Adopt NFPA 805 Performance-Based Standard for Fire Protection for Light Water Reactor Generating Plants, 2001 Edition)

Pursuant to Title, Code of Federal Regulations (CFR), Part 50, Section 90 (10 CFR 50.90), **[Facility Name]** proposes to amend Appendix A, Technical Specifications (Tech Specs), for Facility Operating Licenses **[License Numbers]** for **[Facility Name]**. **[Identify the Technical Specifications that need to be amended (including changes to the bases).]** This amendment is needed to support the adoption of NFPA 805 Performance-Based Standard for Fire Protection, 2001 Edition in accordance with 10 CFR 50.48(c) [as a method of satisfying 10 CFR 50.48\(a\) and General Design Criterion 3](#). The proposed License Amendment Request (LAR) revises the licensing basis associated with the Fire Protection Program.

The following process was used to determine that these are the only Technical Specifications that require amendment. **[Describe the process.]**

In addition, **[Facility Name]** also requests that the license be amended to remove the following superseded license conditions **[identify license conditions to be superseded]** and replace them with the following suggested license condition authorizing the use of NFPA 805. The following process was used to identify all of the license conditions that require removal.

[Describe the process used to ensure completeness of the set of license conditions that require removal.]

As a separate but related matter, **[Facility Name]** has identified the following unnecessary or superseded orders and exemptions that are required to be revoked. **[Identify orders and exemptions]**. The following process was conducted to identify all of the orders and exemptions that are required to be revoked. **[Describe the process used to ensure completeness of the set of orders and exemptions that are required to be revoked.]**

[Optional provisions for alternative methods and analytical approaches.] Alternative methods and analytical approaches have been used to demonstrate compliance with certain requirements in NFPA 805. The following table lists those requirements and the alternative

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method and analytical approach applied to each. A detailed analyses demonstrating how an alternative method and analytical approach demonstrates compliance for each such requirement is provided in the attachments.

Implementation of this amendment to the **[Facility Name]** operating license and Tech Specs will impact the **[Facility Name]** UFSAR. As a result of implementing this LAR, it will be necessary to revise various sections of the **[Facility Name]** UFSAR. Necessary changes will be made in accordance with 10 CFR 50.71(e).

Plant modifications are/are not necessary to support the adoption of NFPA 805.

- [For the modifications anticipated, provide a brief description of the modifications].

[Facility Name] plans to implement this/these modification(s) by the dates shown in the following updated transition schedule. **[Insert update of schedule provided in letter of intent]** Approval of this proposed LAR is requested by **[month, day, year]** to support this transition schedule.

Implementation of these changes will not result in an undue risk to the health and safety of the public.

Attachments:

Detailed Analyses of Compliance Using Alternative Methods and Analytical Approaches
No Significant Hazards Consideration
Environmental Impact Assessment