

FAQ Number 13-0068

FAQ Revision 0

FAQ Title NFPA 805 License Condition

Plant: NEI NFPA 805 Task Force

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Purpose of FAQ:

To reconsider the scope of the NFPA 805 license condition in RG 1.205 (Rev 1).

Is this Interpretation of guidance? Yes / ☒ No

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

Details:

Regulatory Guide 1.205 (Rev. 1) includes a sample LAR, which contains language for the license conditions to be included in the plant's Operating License after approval of the license amendment request submitted in conjunction with implementing the NFPA-805 project.

At the August 8, 2011 Technical Specification Task Force/NRC meeting, the TSTF expressed concerns with the scope and level of detail in the sample license condition. The following summary is taken from the TSTF monthly status report:

“At the August 8, 2011 TSTF/NRC meeting, the TSTF expressed concerns with the scope and level of detail of the NRC's proposed license condition for plants adopting NFPA-805 license conditions. Regulatory Guide 1.205, Rev. 1, includes a sample LAR, which contains language for the license conditions to be included in the plant's Operating License (OL). The license condition is almost 2 pages long and, based on the TSTF's review, appears to be duplicative of regulations, is inconsistent with existing guidance (e.g., RG 1.174 and RG 1.200), is inconsistent with NEI 06-09 and TSTF-505 acceptance criteria, is inconsistent with existing level of detail for similar programs, contains undefined key terms and apparently conflicting language, and is inconsistent with NRC guidance on the purpose of license conditions.”

Circumstances requiring guidance interpretation or new guidance:

It is recognized that a license condition is necessary for the implementation of NFPA 805, RG 1.205 sections "Risk Informed Changes that may be made without prior NRC approval" and "Other changes that may be made without prior NRC approval", which provide limitations on the changes the licensee can make without prior NRC approval that are more restrictive than 10 CFR 50.48(c). However, detailing some of the conditions in a NRC document to which a licensee is committed by a

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license condition and providing definition of some terms used in the condition will help bring clarity to the regulatory requirements and facilitate their use.

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

As stated in RG-1.205, “It is the intent of 10 CFR 50.48(c) to allow certain changes to be made to the FPP without prior NRC review and approval, once the NRC approves the transition to a performance-based FPP. This intent is reflected in the regulatory analysis for 10 CFR 50.48(c), which states, “Licensees choosing to use the flexibilities provided by the rulemaking could use risk-informed and performance-based approaches and methods in NFPA 805, rather than submitting an exemption or deviation request each time they wish to depart from current requirements.”

The sample license condition provides that flexibility, but also includes a level of detail that is not appropriate for a license condition. A better approach is a requirement in a license condition to follow an NRC-controlled document. Historically, guidance that is applied generically has not been included in license conditions, such as when a change to a program can be made without NRC approval. Additionally, there are current license conditions for other programs that are not as detailed in language that is universally applicable. Examples are Emergency Planning and Security.

Language that can create problems for licensees and the NRC occurs in several places. Some undefined terms that are particularly susceptible to misinterpretation are:

1. Acceptable to the NRC - how is this acceptability demonstrated?
2. Adequate for the hazard, which is also not defined in RG 1.205, NEI 04-02 or NFPA 805.
3. Bound the risk impact - how is this demonstrated?
4. Clearly result in a decrease in risk – this is a subjective term
5. Qualified fire protection engineer – the standard for qualification is not stated
6. Relevant technical requirement or standard – relevant to what standard is not stated

These terms can be defined in NRC-controlled documents without requiring licensees to submit license approval requests to clarify the license condition.

Lastly, LIC-101, Revision 4 states in part, “The escalation of an action proposed by a licensee as a commitment into a license condition, requiring prior NRC approval of subsequent changes, should be reserved for inclusion in the license to address a significant safety issue. Routine commitments on technical matters that do not satisfy the above criteria for license conditions should be discussed in the staff’s safety evaluation but should not be escalated into formal license conditions.”

The significant elements pertinent to this FAQ are that actions in a license condition should be those that require NRC approval for changes and elements that do not satisfy that criteria should be captured in another document.

It should be noted that this FAQ does not change any requirements in the current license condition. It proposes to move detailed information into regulatory positions in RG 1.205 and then to add a requirement to follow these regulatory positions to the license condition. This does not lessen a licensee's regulatory requirements, but simply moves generic information to a more appropriate document (the Regulatory Guide) and revises the presentation to clarify the intent and to define key terms.

Potentially relevant existing FAQ numbers:

None

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

A revision to Regulatory Guide 1.205 is proposed in order to have the NFPA 805 license condition comply with the guidance set forth in LIC-101, to reduce the necessity for licensees to submit license amendment requests to structure the license condition and to avoid differences of opinion over undefined terms and to ensure a consistent license condition across those plants adopting NFPA 805.

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

The proposed revision to the license condition in Section 3.1 of RG-1.205 is:

(Name of Licensee) shall implement and maintain in effect all provisions of the approved fire protection program that comply with 10 CFR 50.48(a) and 10 CFR 50.48(c), as specified in the licensee amendment request dated _____ (and supplements dated _____) and as approved in the safety evaluation report dated _____ (and supplements dated _____). Changes may be made to the fire protection program without prior approval of the Commission as described in Regulatory Positions C.3.1 and C.3.2 of Regulatory Guide 1.205, Revision 2, "Risk-Informed, Performance-Based Fire Protection for Existing Light-Water Nuclear Power Plants."

[The licensee shall implement the modifications to its facility described in [letter reference] to complete the transition to full compliance with 10 CFR 50.48(c) by {date}. The licensee shall maintain appropriate compensatory measures in place until completion of these modifications. Prior to achieving full compliance with 10 CFR 50.48(c), risk informed changes to the licensee's fire protection program may not be made without prior NRC review and approval unless the change has been demonstrated to have no more than a minimal risk impact, as described in Regulatory Positions C.3.1 and C.3.2 of Regulatory Guide 1.205, Revision 2.]

The following is a complete markup of Regulatory Guide 1.205 with comments where improvements are made.

3. NFPA 805 Fire Protection Program

NFPA 805 refers to "the authority having jurisdiction." The NRC is the authority having jurisdiction for 10 CFR 50.48(c).

3.1 Standard License Condition

As specified in 10 CFR 50.48(c)(3)(i), the license amendment request must identify any license conditions to be revised or superseded. NFPA 805 and paragraph (c) in 10 CFR 50.48 identify aspects of a performance-based FPP that the NRC must specifically approve through a license amendment. It is the

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intent of 10 CFR 50.48(c) to allow certain changes to be made to the FPP without prior NRC review and approval, once the NRC approves the transition to a performance-based FPP. This intent is reflected in the regulatory analysis for 10 CFR 50.48(c), which states, "Licensees choosing to use the flexibilities provided by the rulemaking could use risk-informed and performance-based approaches and methods in NFPA 805, rather than submitting an exemption or deviation request each time they wish to depart from current requirements."

The NRC ~~intends to~~ provides ~~this~~ the flexibility to make certain changes without prior NRC review and approval in a license condition for licensees that make the transition to 10 CFR 50.48(c). A sample license condition, which *incorporates* ~~includes~~ acceptance criteria for making changes to the licensee's FPP without prior NRC review and approval, is shown below. The application of these risk acceptance criteria, *described in RG 1.205*, requires that the plant have an acceptable fire PRA that is in accordance with the guidance in Regulatory Position 4.3; refer also to Regulatory Position 3.2.4.

(Name of Licensee) shall implement and maintain in effect all provisions of the approved fire protection program that comply with 10 CFR 50.48(a) and 10 CFR 50.48(c), as specified in the licensee amendment request dated _____ (and supplements dated _____) and as approved in the safety evaluation report dated _____ (and supplements dated _____). *Changes may be made to the fire protection program without prior approval of the Commission as described in Regulatory Positions C.3.1 and C.3.2 of Regulatory Guide 1.205, Revision 2, "Risk-Informed, Performance-Based Fire Protection for Existing Light-Water Nuclear Power Plants."*

Transition License Conditions

~~(1) Before achieving full compliance with 10 CFR 50.48(c), as specified by (2) below, risk informed changes to the licensee's fire protection program may not be made without prior NRC review and approval unless the change has been demonstrated to have no more than a minimal risk impact, as described in (2) above.~~

~~(2) [The licensee shall implement the following modifications to its facility described in [letter reference] to complete the transition to full compliance with 10 CFR 50.48(c) by {date}. The licensee shall maintain appropriate compensatory measures in place until completion of the these modifications delineated above. Prior to~~ *Before achieving full compliance with 10 CFR 50.48(c), as specified by (2) below, risk informed changes to the licensee's fire protection program may not be made without prior NRC review and approval unless the change has been demonstrated to have no more than a minimal risk impact, as described in Regulatory Positions C.3.1 and C.3.2 of Regulatory Guide 1.205, Revision 2* ~~(2) above.]~~

~~{Include a plant specific list of any modifications identified by the licensee as necessary to complete the transition to its new fire protection license basis.}~~

~~(3) The licensee shall maintain appropriate compensatory measures in place until completion of the modifications delineated above.~~

~~Except where NRC approval for changes or deviations is required by 10 CFR 50.48(c),~~
and

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~~Provided no other regulation, technical specification, license condition or requirement would require prior NRC approval, the licensee may make changes to the fire protection program without prior approval of the Commission~~

~~If those changes satisfy the provisions set forth in 10 CFR 50.48(a) and 10 CFR 50.48(e),~~

~~The change does not require a change to a technical specification or a license condition, and the criteria listed below are satisfied.~~

Clean Version of License Condition

(Name of Licensee) shall implement and maintain in effect all provisions of the approved fire protection program that comply with 10 CFR 50.48(a) and 10 CFR 50.48(c), as specified in the licensee amendment request dated _____ (and supplements dated _____) and as approved in the safety evaluation report dated _____ (and supplements dated _____). Changes may be made to the fire protection program without prior approval of the Commission as described in Regulatory Positions C.3.1 and C.3.2 of Regulatory Guide 1.205, Revision 2, "Risk-Informed, Performance-Based Fire Protection for Existing Light-Water Nuclear Power Plants."

[The licensee shall implement the modifications to its facility described in [letter reference] to complete the transition to full compliance with 10 CFR 50.48(c) by {date}. The licensee shall maintain appropriate compensatory measures in place until completion of these modifications. Prior to achieving full compliance with 10 CFR 50.48(c), risk informed changes to the licensee's fire protection program may not be made without prior NRC review and approval unless the change has been demonstrated to have no more than a minimal risk impact, as described in Regulatory Positions C.3.1 and C.3.2 of Regulatory Guide 1.205, Revision 2.]

[The following paragraphs move information from the license condition to a Regulatory Position in the Regulatory Guide and adds a definition section.]

3.1 Definitions

1. **Acceptable to the NRC** – Acceptable by endorsement or by unit-specific approval. Unit-specific approval is only applicable to the specific unit.
2. **Adequate for the hazard** – The effectiveness of the fire protection features shall be evaluated in relation to their ability to detect, control, suppress, and extinguish a fire and provide passive protection to achieve the performance criteria and not exceed the damage thresholds defined in NFPA 805, Section 2.5 for the plant area being analyzed.
3. **Bound the risk impact** - A qualitative or quantitative method that is not specifically applied to NFPA 805 risk assessments, but can be shown to be applicable and is equal or less in level of risk.
4. **Clearly show decrease in risk** – A qualitative or quantitative evaluation demonstrates that the change will reduce risk.

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5. **Qualified fire protection engineer** – See Regulatory Guide 1.189, Rev. 2, Section 1.6.1.A.
6. **Relevant technical requirement or standard** - A technical requirement or standard that can be shown to have a direct relation to or impact on the evaluation of the functionality of a component, system, procedure, or physical arrangement.

3.2 Changes that May Be Made Without Prior NRC Approval

Risk-Informed Changes that May Be Made Without Prior NRC Approval

A risk assessment of the change must demonstrate that the acceptance criteria below are met. The risk assessment approach, methods, and data shall be acceptable to the NRC and shall be appropriate for the nature and scope of the change being evaluated; be based on the as-built, as-operated, and maintained plant; and reflect the operating experience at the plant. Acceptable methods to assess the risk of the change may include methods that have been used in the peer-reviewed fire PRA model, methods that have been approved by NRC through a plant-specific license amendment or NRC approval of generic methods specifically for use in NFPA 805 risk assessments, or methods that have been demonstrated to bound the risk impact.

The proposed change must be consistent with the defense-in-depth philosophy and must maintain sufficient safety margins. The change may be implemented following completion of the plant change evaluation.

(a) Prior NRC review and approval is not required for changes that clearly result in a decrease in risk. ~~The proposed change must also be consistent with the defense-in-depth philosophy and must maintain sufficient safety margins. The change may be implemented following completion of the plant change evaluation.~~

(b) Prior NRC review and approval is not required for individual changes that result in a risk increase less than 1×10^{-7} /year (yr) for CDF and less than 1×10^{-8} /yr for LERF. ~~The proposed change must also be consistent with the defense-in-depth philosophy and must maintain sufficient safety margins. The change may be implemented following completion of the plant change evaluation.~~

The proposed change must also be consistent with the defense-in-depth philosophy and must maintain sufficient safety margins. The change may be implemented following completion of the plant change evaluation.

Other Changes that May Be Made Without Prior NRC Approval

- (1) Changes to NFPA 805, Chapter 3, Fundamental Fire Protection Program

Note on changes: The sentence "The licensee may use an engineering evaluation..." is duplicated in the paragraph. The deleted second paragraph duplicates the first paragraph without making any distinction.

Prior NRC review and approval are not required for changes to the NFPA 805, Chapter 3, fundamental fire protection program elements and design requirements for which an engineering evaluation demonstrates that the alternative to the Chapter 3 element is functionally equivalent *to the corresponding*

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~~technical requirement or adequate for the hazard.~~ Prior NRC review and approval would not be required for alternatives to four specific sections of NFPA 805, Chapter 3, *listed below* for which an engineering evaluation demonstrates that the alternative to the Chapter 3 element is adequate for the hazard. ~~The licensee may use an engineering evaluation to demonstrate that a change to an NFPA 805, Chapter 3, element is functionally equivalent to the corresponding technical requirement.~~ A qualified fire protection engineer shall perform the engineering evaluation and conclude that the change has not affected the functionality of the component, system, procedure, or physical arrangement, using a relevant technical requirement or standard.

~~The licensee may use an engineering evaluation to demonstrate that changes to certain NFPA 805, Chapter 3, elements are acceptable because the alternative is "adequate for the hazard." Prior NRC review and approval would not be required for alternatives to four specific sections of NFPA 805, Chapter 3, for which an engineering evaluation demonstrates that the alternative to the Chapter 3 element is adequate for the hazard. A qualified fire protection engineer shall perform the engineering evaluation and conclude that the change has not affected the functionality of the component, system, procedure, or physical arrangement, using a relevant technical requirement or standard.~~ The four specific sections of NFPA 805, Chapter 3, are as follows:

- "Fire Alarm and Detection Systems" (Section 3.8);
- "Automatic and Manual Water-Based Fire Suppression Systems" (Section 3.9);
- "Gaseous Fire Suppression Systems" (Section 3.10); and,
- "Passive Fire Protection Features" (Section 3.11).

(2) Fire Protection Program Changes that Have No More than Minimal Risk Impact

Prior NRC review and approval are not required for changes to the licensee's fire protection program that have been demonstrated to have no more than a minimal risk impact. The licensee may use its screening process as approved in the NRC safety evaluation report dated _____ to determine that certain fire protection program changes meet the minimal criterion. ~~The licensee shall ensure that fire protection defense in depth and safety margins are maintained when changes are made to the fire protection program.~~

Note on changes: This last sentence is already stated in the second paragraph of Section 3.2. The following discussion of transition license conditions is included in the proposed license condition.

Transition License Conditions

- (1) ~~Before achieving full compliance with 10 CFR 50.48(c), as specified by (2) below, risk informed changes to the licensee's fire protection program may not be made without prior NRC review and approval unless the change has been demonstrated to have no more than a minimal risk impact, as described in (2) above.~~
- (2) ~~The licensee shall implement the following modifications to its facility to complete the transition to full compliance with 10 CFR 50.48(c) by {date}.~~

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~~{Include a plant specific list of any modifications identified by the licensee as necessary to complete the transition to its new fire protection license basis.}~~

- ~~(3) The licensee shall maintain appropriate compensatory measures in place until completion of the modifications delineated above.~~