April 29, 2002

MEMORANDUM TO: Christopher I. Grimes, Program Director
Policy and Rulemaking Program
Division of Regulatory Improvement Programs

FROM: Joseph L. Birmingham, Project Manager ***/RA/***
Policy and Rulemaking Program
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SUBJECT: SUMMARY OF FEBRUARY 12, 2002, MEETING WITH NUCLEAR ENERGY INSTITUTE ON IMPLEMENTING GUIDANCE FOR NFPA 805

On February 12, 2002, Nuclear Regulatory Commission (NRC) staff met with representatives of the Nuclear Energy Institute (NEI) and industry to continue discussion of NEI's proposed outline of guidance for implementation of National Fire Protection Association (NFPA) standard NFPA 805, "Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants." The meeting attendees are listed in Attachment 1. Presentation material from NEI is in Attachment 2.

The meeting opened with a discussion of whether the NFPA 805 guidance document should contain guidance for licensees which have not adopted NFPA 805 through the rulemaking.

- NEI stated that industry would like there to exist a "structured regulatory approach" for use of risk-informed tools, including those from NFPA 805, within the current licensing basis. NEI stated that a seamless approach to risk-informed fire protection is necessary. If the adoption of NFPA 805 is the end point in that process, the use of NFPA 805 tools within the current licensing basis would be evolutionary steps toward that goal. NEI stated that it only makes sense for the guidance for all steps of this evolutionary process to be contained in a single guidance document, so that partial steps are consistent with the overall goal, and both the licensee and the NRC can see the relationship of partial steps to that goal.

- The NRC stated that it did not have a conceptual problem with licensees using NFPA 805 methodologies and approaches on an optional, selective basis (assuming the necessary NRC approvals are submitted for and obtained, for example, under 10 CFR 50.12 or 10 CFR 50.90.)

- The NRC stated that the development of a "structured regulatory approach" for fire protection submittals (see above) is beyond the scope of the current NFPA 805 rulemaking.

- As discussed below, the NRC and NEI agreed that Sections 5.1 and 8 of the current implementation guidance document outline (which provide guidance for optional, selective use of NFPA 805) would continue to be developed by NEI.

The second topic discussed was whether the fundamental fire protection program and design elements of Chapter 3 of NFPA 805 must meet and are subject to inspection against the performance goals, objectives and criteria of Chapter 1 of NFPA 805. [Although Section 3.1 says that the subject elements are not subject to the performance-based methods permitted elsewhere in the standard, the goals/objectives/criteria question still exist.]

- Section 3.1 of NFPA 805 says that, "Previously approved alternatives from the fundamental protection program attributes of this chapter by the AHJ take precedence over the requirements contained herein."

- Discussion of this issue resulted in the realization that the NFPA 805 definitions of "approved" and "acceptable," if taken together, result in the presumption that any previously approved attributes are deemed to satisfy the goals, objectives and criteria of Chapter 1. Considering that Chapter 3 states that its contents provide the minimum design requirements to meet NFPA 805, the conclusion must therefore be drawn that either by meeting Chapter 3 directly, or by providing previously NRC approved alternatives, a direct comparison between Chapter 3 against the goals, objectives and criteria of Chapter 1 is not necessary.

The third topic discussed was that of "tacit NRC approval." Four terms were discussed: "Docketed Licensing Basis"; "Approved Licensing Basis"; "Tacit NRC Approval"; and "Potential Tacit NRC Approval." The industry had proposed that "docketed licensing basis information" instead of "previously approved alternatives" could be brought forward to supersede a fundamental element of Chapter 3.

- There was some discussion of the matter of docketing and its effect, licensing basis and various concepts on forms or methods of "approval". Terms such as "tacit NRC approval" and "potential tacit NRC approval" are not defined and warrant further assessment.

- The status of inspection report information being considered to be approved licensing basis information was discussed. It was pointed out by the NRC staff that although the 10 CFR 54.3 definition of "Current Licensing Basis" is not applicable to aspects outside of license renewal, the definition does not include inspection report information. Industry legal counsel argued that certain team inspections lead by NRC qualified fire protection engineers which made conclusions regarding the adequacy of plant configurations and/or procedures with respect to that reactor plant's licensing basis should be given standing as "approved licensing bases" even though the vehicle for the Agency's expression was an inspection report.

The fourth topic discussed was the standing of "approved licensing basis information" within NFPA 805. Three possible ways were discussed for approved licensing basis information to gain standing within NFPA 805 Chapter 3: First, "approved licensing basis information" was adequate to establish that "fundamental fire protection program and design elements" meet the performance goals, objectives and criteria of Chapter 1 of NFPA 805. Second, upon review of Figure 2-2 of NFPA 805, "existing plant licensing basis" information is an input into the deterministic analysis of Chapter 2. Third, future rule language could be developed which explicitly denotes approved licensing basis information as having some specific standing within

NFPA 805. The OGC representative indicated that this would not be necessary, if the rule endorsing NFPA 805 is written properly.

The fifth topic discussed was the extent to which, under the NFPA 805 rulemaking language, licensees would be required to submit technical documentation to the NRC staff as part of an NFPA 805 transition process from Appendix R or NUREG 0800 (Standard Review Plan [SRP]) requirements.

- The NRC staff stated that it had just completed its review of public and industry comments on draft NFPA 805 rule language (comments closing date February 3, 2002). Further, the NRR, Plant Systems Branch had subsequently developed "revised draft" rule language (intended in draft to be initial proposed rule language) which addressed the question of the extent of required submittal of technical documentation. The salient portions of the revised draft rule language, read out to the meeting attendees and summarized below, were:

  – A transitioning licensee, for each reactor plant fire area which is in compliance with its current fire protection licensing basis (Appendix R or NUREG 0800 requirements and/or standard or plant-specific license conditions) would not be required to conduct the deterministic or performance-based analyses of Chapter 2 of NFPA 805, but;

  – A transitioning licensee, for each reactor plant fire area which is not in compliance with the current fire protection licensing basis (e.g., a long-term compensatory measure may be in effect to mitigate a noncompliance and reestablish adequate safety), would be required to complete all of the analyses of Chapter 2 of NFPA 805 and establish a fire protection configuration and fire protection procedures in compliance with NFPA 805 in each such fire area.

  – Commencing on the date of initial compliance with the NFPA 805 regulation in a specific fire area, a licensee would be required to conduct and implement the applicable analyses of Chapter 2 of NFPA 805 <u>whenever a change to the reactor plant fire protection configuration and/or fire protection procedures is being made</u> in a fire area.

  – During and after the transition process, a licensee may declare one or more specific fire areas as "NFPA 805 <u>regulation</u> compliant" for inspection and enforcement purposes. Such declarations shall be in writing and readily available for review on the reactor site. Such "declared" fire areas will, at the time of the declaration, cease to be subject to inspection and enforcement against the licensee's previous fire protection licensing basis.

- Subsequently, significant discussion ensued on issues related to and surrounding the extent of required submitted technical documentation:

  – The NRC staff noted that the revised draft rule language would have the effect of "bringing forward" or "grandfathering" existing compliant Appendix R/SRP configurations and procedures as the initial fire protection configuration under

the NFPA 805 rulemaking. The safety rationale for this seeming inconsistency (new NFPA 805 regulatory/licensing basis, old Appendix R or Standard Review Plan fire protection configuration and procedures) was stated by the staff to be that the "grandfathered" fire protection configuration and procedures are today providing "adequate fire protection safety," and a change in the reactor plant's fire protection regulatory/licensing basis would not change that condition in any way. Further, under the revised draft rule language above, once a licensee embarked on a fire protection configuration or procedural change in a given fire area, the full analyses required by NFPA 805 would be required.

– The NRC staff stated that under the revised draft rule language, little or no technical documentation would be required to be submitted by a transitioning licensee, either before or after the date of full compliance with NFPA 805. Industry representatives stated that, nevertheless, in order to make the decision to apply for transition to NFPA 805, licensees would have to do a detailed analysis of their current licensing basis against NFPA 805 requirements, to determine the costs and benefits of making the transition. The NRC representatives agreed, but stated that the conduct of such analyses would be an economic choice, not a regulatory requirement.

– It was pointed out that the revised draft language, as written (because it called for, in most cases, no "up-front" NFPA 805 Chapter 2 deterministic nor performance-based analysis against the requirements of NFPA 805), could, through administrative oversight, result in licensees erroneously not entering the NFPA 805 analysis at all, and therefore not addressing issues where the current licensing basis is silent, such as non-operating reactor modes (discussed in terms of fuel safety and stability in Section 1.3.1 [Nuclear Safety Goal] of NFPA 805). The NRC representatives stated they would reconsider and possibly change the revised draft rule language in light of this comment.

– It was noted during the discussion that the revised draft rule language summarized above did not alleviate licensee responsibility to conduct the full reviews inherent in establishing the "fundamental fire protection program and design elements" of Chapter 3 of NFPA 805.

– A question was raised regarding the approach which NRC inspectors might take when reviewing fire protection configurations in NFPA 805 regulation compliant fire areas. For example, after a fire area was declared by a licensee to be NFPA regulation compliant (or after the expiration of the overall NFPA 805 transition period requested by the licensee), should an inspector expect the licensee to possess analyses which showed that each fire area is fully compliant with NFPA 805? The NRC staff stated that, based on the revised draft rule language, if no transition or post-transition fire protection configuration or procedure changes had been made within the subject fire area, no such analyses would need to have been developed or provided to an inspector. Conversely, any such changes would have triggered such analyses (see revised draft rule language above), and they could be expected to be in existence and readily available.

The sixth topic discussed was whether a license amendment may be necessary as part of the transition process to permit a licensee to revise or remove existing fire protection-related license conditions. The NRC OGC representative stated that such a license amendment would almost certainly be needed. It was pointed out that the NRC could write the NFPA 805 rule as an "empowering rule," which would supersede the need for such license amendment applications on the part of licensees while providing for supersession of existing fire protection license conditions with license conditions consistent with NFPA 805. However, the rule itself would most likely have to include the language of the superseding license conditions. It was pointed out that in either case, the removal mechanism would also need to apply to changes to any remaining fire protection-related technical specifications or orders applicable to the subject reactor facility.

The seventh topic discussed was whether the rule language should endorse the methodological NFPA 805 appendices (B, C, D and E) as "acceptable methods" for conducting the following: nuclear safety (post-fire safe shutdown/circuit) analysis (Appendix B), fire modeling (Appendix C), fire probabilistic safety assessments (PSAs, Appendix D), plant damage/business interruption (Appendix E).

- Appendix E addresses economic issues of fire protection that are not in the NRC's charter in the Energy Reorganization Act of 1974. Therefore, the NRC believes it should not be endorsed.

- The NRC staff stated that the appropriate place to endorse NFPA 805 methodologies would be in a Regulatory Guide. Endorsement of the NFPA appendices would mean that revisions to the appendices would require rulemaking, in order for licensees to use the revised appendices, absent issuance of an exemption. The Regulatory Guide may endorse an NEI-developed implementation guide for the NFPA 805 rulemaking (currently being developed by NEI). The NRC's intent to not endorse Appendices B, C, and D within the proposed rule language should not be taken as an indication that staff believes it can not, nor should not, endorse their methodologies in the future (via the planned NFPA 805 Regulatory Guide).

- NEI stated that, within the implementation guidance, it would be developing a "path" for implementation which may reflect information from Appendices B, C or D.

- The NRC staff stated that if there was reference to use of Appendices B, C or D in the NEI implementation guidance, then the staff would expect NEI and/or industry to provide technical justification for the use of the methodologies in those appendices within NFPA 805, just as would be required for any other request for plant-specific or generic use of other methodologies.

At the conclusion of the meeting, NEI stated that, in the near-term, it would reconsider its implementation guidance document development schedule to ensure that possible changes to the proposed draft rule language over the next 6 to 9 months do not result in wasted NEI and industry implementation guidance development efforts. NEI stated that this might be accomplished by focusing more heavily during spring and summer 2002, on development of guidance for licensees that choose not to adopt NFPA 805.

Also at the end of the meeting, the NRC staff stated that it would attempt to achieve "transparency" of the NFPA 805 rulemaking process so that NEI and industry could develop the implementation guidance document with an up-to-date understanding of the proposed rule language. The NRC staff stated that this might be accomplished through periodic or event-based postings of the current proposed rule language on the NRC web site (probably on the NRC's public Rulemaking Forum).

Having completed discussion of the agenda items, the group adjourned.

Project No. 689
Attachments: As stated
cc w/atts: See list

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