

## NRR-DMPSPeM Resource

---

**From:** Green, Kimberly  
**Sent:** Monday, April 29, 2019 12:38 PM  
**To:** ERICKSON, JEFFREY S; MIKSA, JAMES P  
**Cc:** rgasto1@entergy.com; spyle@entergy.com  
**Subject:** Request for Additional Information for Palisades License Amendment Request to Revise License Conditions Related to NFPA 805 Modifications (EPID L-2018-LLA-0296)  
**Attachments:** Final RAI.docx

Dear Mr. Erickson and Mr. Miksa:

By letter dated November 1, 2018, Entergy Nuclear Operations, Inc. (ENO) requested changes to the approved fire protection program for the Palisades Nuclear Plant (Agencywide Documents Access and Management System Accession No. ML18305B320).

The U.S. Nuclear Regulatory Commission (NRC) staff is reviewing your submittal and has identified an area where additional information is needed to complete its review. Attached, please find a draft request for additional information (RAI).

A draft RAI was previously transmitted to you by email dated April 11, 2019. At your request, the NRC held a clarification call with ENO on April 25, 2019, to clarify the NRC staff's request. No changes were made the draft RAI as a result of the clarification call.

A response to the attached RAI is requested within 30 days from the date of this email.

If circumstances result in the need to revise the requested response date, please contact me.

Respectfully,  
Kimberly Green  
(301) 415-1627  
[kimberly.green@nrc.gov](mailto:kimberly.green@nrc.gov)

**Hearing Identifier:** NRR\_DMPS  
**Email Number:** 941

**Mail Envelope Properties** (BN8PR09MB3458F2162A6268964A87BA328F390)

**Subject:** Request for Additional Information for Palisades License Amendment Request to Revise License Conditions Related to NFPA 805 Modifications (EPID L-2018-LLA-0296)  
**Sent Date:** 4/29/2019 12:38:06 PM  
**Received Date:** 4/29/2019 12:38:00 PM  
**From:** Green, Kimberly

**Created By:** Kimberly.Green@nrc.gov

**Recipients:**  
"rgasto1@entergy.com" <rgasto1@entergy.com>  
Tracking Status: None  
"spyle@entergy.com" <spyle@entergy.com>  
Tracking Status: None  
"ERICKSON, JEFFREY S" <JERICKS@entergy.com>  
Tracking Status: None  
"MIKSA, JAMES P" <jmiksa@entergy.com>  
Tracking Status: None

**Post Office:** BN8PR09MB3458.namprd09.prod.outlook.com

| Files          | Size  | Date & Time           |
|----------------|-------|-----------------------|
| MESSAGE        | 1093  | 4/29/2019 12:38:00 PM |
| Final RAI.docx | 29899 |                       |

**Options**  
**Priority:** Standard  
**Return Notification:** No  
**Reply Requested:** No  
**Sensitivity:** Normal  
**Expiration Date:**  
**Recipients Received:**

REQUEST FOR ADDITIONAL INFORMATION

ENTERGY NUCLEAR OPERATIONS, INC.

PALISADES NUCLEAR PLANT

DOCKET NO. 50-255

By letter dated November 1, 2018 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML18305B320), Entergy Nuclear Operations, Inc. (ENO) submitted a license amendment request (LAR) for the Palisades Nuclear Plant (PNP) that requested approval of several changes to the PNP's approved fire protection program under 10 CFR 50.48(c), "National Fire Protection Association [NFPA] Standard NFPA 805." Specifically, ENO has proposed to cancel 6 modifications and clarify 10 modifications, which are described in Attachment S, Table S-2, as referenced in the PNP's NFPA 805 transition license condition. The NRC staff is reviewing the LAR and has determined that additional information is needed to complete its review.

**Probabilistic Risk Assessment (PRA) RAI 01**

The LAR included an updated Attachment W that has been revised to reflect the deletion of the six modifications as described in the LAR, according to the text in section "Under Attachment W, Table W-1, Fire Initiating Events Contributing > 1% to the Calculated Fire Risk and Table W-2 PNP Fire Area Risk Summary." The discussion related to Attachment W does not indicate that the clarifications to the modifications are included in the updated Attachment W results.

Of the 10 modifications where clarifications are being provided, Attachment S, Table S-2 indicated that modification items S2-15 and S2-21 are included in the PRA. The LAR indicates that the methodology described in NUREG/CR-7150, Volume 2, "Joint Assessment of Cable Damage and Quantification of Effects from Fire (JACQUE-FIRE), Technical Resolution to Open Issues on Nuclear Power Plant Fire-Induced Electrical Circuit Failure," (ADAMS Accession No. ML14141A129), was applied to modification S2-15. Removal of plant-specific fire-related modifications due to more refined analysis is typical of plants submitting LARs to request changes to its obligations, but these changes are incorporated in the PRA and the results are compared to Regulatory Guide 1.174, "An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis" guidelines (ADAMS Accession No. ML17317A256).

Based on the information provided in the LAR, it is unclear whether the clarifications related to modification items S2-15 and S2-21 have been included in the PRA and the updated Attachment W. If the clarifications for S2-15 and S2-21 are not included in the PRA, provide a justification for this exclusion. Absent a justification, provide an updated Attachment W that incorporates these changes, including updated total risk and change in risk values and compare the risk with RG 1.174 guidelines. Should the delta risk not be negative, provide the new additional risk of recovery actions.

## **PRA RAI 02**

Section 4.2.4.2 of NFPA 805 requires that the use of fire risk evaluation for the performance-based approach shall consist of an integrated assessment of the acceptability of risk, defense-in-depth (DID), and safety margins.

Item iv of the LAR, "Defense-in-Depth and Safety Margin," indicates that a review of prior determinations for DID, taking into account the modifications being eliminated, established that DID continues to meet the acceptance criteria of NFPA 805, Section 4.2.4, with no change to the required modifications or DID actions. However, the only stated acceptance criteria in NFPA 805, Section 4.2.4, are the "risk acceptance criteria." Meeting risk guidelines does not constitute meeting DID. Indicate whether the DID approach accepted for NFPA 805 implementation applies to the modifications that are being deleted and modifications S2-15 and S2-21 that are being clarified and describe how each proposed change satisfies each DID echelon.

## **Fire Protection RAI 01**

The LAR states that several modifications in Attachment S, Table S-2 have been implemented since Table S-2 was last submitted on August 14, 2014 (ADAMS Accession No. ML14226A498), and that Table S-2 was not updated to reflect modifications that have already been installed and could be transferred to Table S-1, "Plant Modifications Completed." The LAR proposes a revision to transition license condition 2.C.(3)(c)2. to reference the Table S-2 dated November 1, 2018, which based on your statement above, does not reflect the current status of the modifications. The regulation at 10 CFR 50.48(c)(3)(i) states, in part, that the application must identify any orders and license conditions that must be revised or superseded, and contain any necessary revisions to the plant's technical specifications and the bases thereof, and the Director of the Office of Nuclear Reactor Regulation, or a designee of the Director, may approve the application if the Director or designee determines that the licensee has identified orders, license conditions, and the technical specifications that must be revised or superseded, and that any necessary revisions are adequate. Based on the information provided in the LAR, the NRC cannot determine whether the proposed change to transition license condition 2.C.(3)(c)2. is adequate. Provide revised Attachment S, Tables S-1 and S-2, that reflect the current status of the modifications. Also provide a revised license condition 2.C.(3)(c)2 that reflects the date that Table S-2 was revised.