



Entergy Nuclear Operations, Inc.
Palisades Nuclear Plant
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Charles F. Arnone
Site Vice President

PNP 2018-004

January 24, 2018

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

SUBJECT: Supplement to License Amendment Request to Change the Full Compliance Implementation Date for the Fire Protection Program Transition License Condition for Required Modifications

Palisades Nuclear Plant
Docket 50-255
Renewed Facility Operating License No. DPR-20

- REFERENCES:**
1. Entergy Nuclear Operations, Inc. letter to NRC, PNP 2017-066, "License Amendment Request to Change the Full Compliance Implementation Date for the Fire Protection Program Transition License Condition for Required Modifications," dated November 1, 2017 (ADAMS Accession No. ML17306A086)
 2. NRC email to Entergy Nuclear Operations, Inc., "NFPA-805 Amendment for Full Implementation," dated December 22, 2017

Dear Sir or Madam:

In Reference 1, Entergy Nuclear Operations, Inc. (ENO) submitted a license amendment request (LAR) to the Nuclear Regulatory Commission (NRC) for approval of a revision to the Palisades Nuclear Plant (PNP) renewed facility operating license (RFOL) to change the full compliance implementation date for the fire protection program transition license condition.

In Reference 2, the NRC requested a supplement to the LAR to provide revised RFOL pages.

In Attachment 1 to this letter, ENO is providing a revision to the proposed RFOL pages as submitted in Attachment 2 of Reference 1. This Attachment 1 supersedes in its entirety the Attachment 2 that was submitted in Reference 1.

In Attachment 2 to this letter, ENO is providing a revision to the proposed RFOL pages as submitted in Attachment 3 of Reference 1. This Attachment 2 supersedes in its entirety the Attachment 3 that was submitted in Reference 1.

This supplement is administrative in nature to provide revised RFOL pages to include the addition of the Reference 1 submittal date, this supplement date and the future safety evaluation

date. These administrative revisions do not affect the technical evaluation as discussed in Section 3.0 of Reference 1.

This supplement does not impact the conclusions of the no significant hazards evaluation or the environmental considerations evaluation presented in Reference 1.

A copy of this supplement has been provided to the designated representative of the State of Michigan.

Summary of Commitments

This letter contains no new commitments and no revisions to existing commitments.

I declare under penalty of perjury that the foregoing is true and correct. Executed on January 24, 2018.

Sincerely,

A handwritten signature in black ink, appearing to read 'CFA/ach', followed by a horizontal line.

CFA/ach

Attachments: 1. Revised Proposed Renewed Facility Operating License Changes (markup)
 2. Revised Proposed Renewed Facility Operating License Page Changes
 (clean)

cc: Administrator, Region III, USNRC
 Project Manager, Palisades, USNRC
 Resident Inspector, Palisades, USNRC
 State of Michigan

PNP 2018-004

ATTACHMENT 1

Revised Proposed Renewed Facility Operating License Changes (markup)

(Showing proposed changes; additions are highlighted and deletions are strikethrough)

4 pages follow

- (1) Pursuant to Section 104b of the Act, as amended, and 10 CFR Part 50, "Licensing of Production and Utilization Facilities," (a) ENP to possess and use, and (b) ENO to possess, use and operate, the facility as a utilization facility at the designated location in Van Buren County, Michigan, in accordance with the procedures and limitation set forth in this license;
 - (2) ENO, pursuant to the Act and 10 CFR Parts 40 and 70, to receive, possess, and use source and special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Updated Final Safety Analysis Report, as supplemented and amended;
 - (3) ENO, pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use byproduct, source, and special nuclear material as sealed sources for reactor startup, reactor instrumentation, radiation monitoring equipment calibration, and fission detectors in amounts as required;
 - (4) ENO, pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use in amounts as required any byproduct, source, or special nuclear material for sample analysis or instrument calibration, or associated with radioactive apparatus or components; and
 - (5) ENO, pursuant to the Act and 10 CFR Parts 30, 40, and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operations of the facility.
- C. This renewed operating license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations in 10 CFR Chapter I and is subject to all applicable provisions of the Act; to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:
- (1) ENO is authorized to operate the facility at steady-state reactor core power levels not in excess of 2565.4 Megawatts thermal (100 percent rated power) in accordance with the conditions specified herein.
 - (2) The Technical Specifications contained in Appendix A, as revised through Amendment No. ~~263~~, ~~XXX~~ and the Environmental Protection Plan contained in Appendix B are hereby incorporated in the license. ENO shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.
 - (3) Fire Protection

ENO 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 license amendment requests dated December 12, 2012 and November 1, 2017, as supplemented by letters dated February 21, 2013, September 30, 2013, October 24, 2013, December 2, 2013, April 2, 2014, May 7,

2014, June 17, 2014, August 14, 2014, November 4, 2014, and December 18, 2014, and January 24, 2018, as approved in the safety evaluations dated February 27, 2015 and February X, 2018. Except where NRC approval for changes or deviations is required by 10 CFR 50.48(c), and 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(c), the change does not require a change to a technical specification or a license condition, and the criteria listed below are satisfied.

(a) 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.

1. 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.
2. 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.

(b) Other Changes that May Be Made Without Prior NRC Approval

1. Changes to NFPA 805, Chapter 3, Fundamental Fire Protection Program

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

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element is functionally equivalent or 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).

This License Condition does not apply to any demonstration of equivalency under Section 1.7 of NFPA 805.

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 dated February 27, 2015, 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.

(c) 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 modifications to its facility, as described in Table S-2, "Plant Modifications Committed," of ENO letter PNP 2014-080 dated August 14, 2014, to complete the transition to full compliance with 10 CFR 50.48(c) before the end of the refueling outage following the third second-full operating cycle after NRC approval. The licensee shall maintain appropriate compensatory measures in place until completion of these modifications.
 3. The licensee shall implement the items listed in Table S-3, "Implementation Items," of ENO letter PNP 2014-097 dated November 4, 2014, within six months after NRC approval, or six months after a refueling outage if in progress at the time of approval with the exception of Implementation Items 3 and 8 which will be completed once the related modifications are installed and validated in the PRA model.
- (4) The following requirements shall apply to control rod drive CRD-13 during cycle 25:
- (a) Performance of Technical Specifications Surveillance Requirement SR 3.1.4.3 is not required for CRD-13 until the next entry into Mode 3.
 - (b) Seal leakage on CRD-13 shall be repaired prior to entering Mode 2, following the next Mode 3 entry.
 - (c) The reactor shall be shut down if CRD-13 seal leakage exceeds two gallons per minute.
- (5) [deleted]

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ATTACHMENT 2

**Revised Operating License Page Change Instructions
and
Revised Renewed Facility Operating License (clean)**

5 pages follow

Page Change Instructions

ATTACHMENT TO LICENSE AMENDMENT NO. 2XX

RENEWED FACILITY OPERATING LICENSE NO. DPR-20

DOCKET NO. 50-255

Remove the following pages of Renewed Facility Operating License, and replace with the attached revised pages. The revised pages are identified by amendment number and contain a line in the margin indicating the area of change.

REMOVE

RFOL Pages 3, 4, 5, 5a

INSERT

RFOL Pages 3, 4, 5, 5a

- (1) Pursuant to Section 104b of the Act, as amended, and 10 CFR Part 50, "Licensing of Production and Utilization Facilities," (a) ENP to possess and use, and (b) ENO to possess, use and operate, the facility as a utilization facility at the designated location in Van Buren County, Michigan, in accordance with the procedures and limitation set forth in this license;
 - (2) ENO, pursuant to the Act and 10 CFR Parts 40 and 70, to receive, possess, and use source and special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Updated Final Safety Analysis Report, as supplemented and amended;
 - (3) ENO, pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use byproduct, source, and special nuclear material as sealed sources for reactor startup, reactor instrumentation, radiation monitoring equipment calibration, and fission detectors in amounts as required;
 - (4) ENO, pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use in amounts as required any byproduct, source, or special nuclear material for sample analysis or instrument calibration, or associated with radioactive apparatus or components; and
 - (5) ENO, pursuant to the Act and 10 CFR Parts 30, 40, and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operations of the facility.
- C. This renewed operating license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations in 10 CFR Chapter I and is subject to all applicable provisions of the Act; to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:
- (1) ENO is authorized to operate the facility at steady-state reactor core power levels not in excess of 2565.4 Megawatts thermal (100 percent rated power) in accordance with the conditions specified herein.
 - (2) The Technical Specifications contained in Appendix A, as revised through Amendment No. XXX, and the Environmental Protection Plan contained in Appendix B are hereby incorporated in the license. ENO shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.
 - (3) Fire Protection

ENO 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 license amendment requests dated December 12, 2012 and November 1, 2017, as supplemented by letters dated February 21, 2013, September 30, 2013, October 24, 2013, December 2, 2013, April 2, 2014, May 7,

2014, June 17, 2014, August 14, 2014, November 4, 2014, and December 18, 2014, and January 24, 2018, as approved in the safety evaluations dated February 27, 2015 and February X, 2018. Except where NRC approval for changes or deviations is required by 10 CFR 50.48(c), and 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(c), the change does not require a change to a technical specification or a license condition, and the criteria listed below are satisfied.

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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.

3. 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.
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 - (c) The reactor shall be shut down if CRD-13 seal leakage exceeds two gallons per minute.
- (5) [deleted]