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PNP 2015-073

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

**SUBJECT:** Response to Request for Additional Information Regarding Relief  
Request Number RR 4-22 – Proposed Alternative, Use of Alternate  
ASME Code Case N-770-1 Baseline Examination

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

- REFERENCES:**
1. Entergy Nuclear Operations, Inc. letter, PNP 2015-043, *Relief Request Number RR 4-22 – Proposed Alternative, Use of Alternate ASME Code Case N-770-1 Baseline Examination*, dated July 7, 2015 (ADAMS Accession No. ML15190A262).
  2. Nuclear Regulatory Commission letter, *Palisades Nuclear Plant – Supplemental Information Needed for Acceptance of Relief Request Number RR 4-22 – Proposed Alternative, Use of Alternate ASME Code Case N-770-1 Baseline Examination (TAC No. MF6448)*, dated July 23, 2015 (ADAMS Accession No. ML15203A043).
  3. Entergy Nuclear Operations, Inc. letter, PNP 2015-059, *Response to Request for Supplemental Information for Relief Request Number RR 4-22 – Proposed Alternative, Use of Alternate ASME Code Case N-770-1 Baseline Examination (TAC No. MF6448)*, dated July 31, 2015 (ADAMS Accession No. ML15219A587)
  4. NRC electronic mail, *Request for Additional Information Regarding RR 4-22 (MF6448)*, dated September 10, 2015.

Dear Sir or Madam:

In Reference 1, Entergy Nuclear Operations, Inc. (ENO) submitted to the NRC a request for relief for a proposed alternative for the Palisades Nuclear Plant (PNP). This relief request was associated with the use of an alternative to the requirements of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Code Case N-770-1, as conditioned by 10 CFR 50.55a(g)(6)(ii)(F)(1) and 10 CFR 50.55a(g)(6)(ii)(F)(3).

In Reference 2, the NRC requested supplemental information needed for acceptance review of the relief request. In Reference 3, ENO provided the requested supplemental information.

In Reference 4, the NRC issued a request for additional information (RAI). The response to the RAI is provided in the attachment.

This letter contains no new commitments and no revised commitments.

Sincerely,

A handwritten signature in black ink, appearing to be 'JAH/jse', written in a cursive style.

JAH/jse

Attachment: Response to Request for Additional Information for Palisades Nuclear Plant Relief Request RR 4-22

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

## ATTACHMENT

### Response to Request for Additional Information for Palisades Nuclear Plant Relief Request RR 4-22

By letter dated July 7, 2015 (ADAMS Accession No. ML15190A262), as supplemented by letter dated July 31, 2015 (ADAMS Accession No. ML15219A587), Entergy Nuclear Operations, Inc. (ENO), proposed an alternative to 10 CFR 50.55a(g)(6)(ii)(F)(3) for Palisades Nuclear Plant (PNP). This regulation defines the inspection requirement for branch connection butt welds at PNP in accordance with the American Society of Mechanical Engineer (ASME) Boiler and Pressure Vessel Code Case N-770-1, "Alternative Examination Requirements and Acceptance Standards for Class 1 PWR Piping and Vessel Nozzle Butt Welds Fabricated With UNS N06082 or UNS W86182 Weld Filler Material With or Without Application of Listed Mitigation Activities," with NRC conditions. ENO requested an extension of the required inspection of Alloy 82/182 branch connections in the primary coolant system for one cycle of operation, as presented in the Relief Request RR 4-22.

The NRC staff reviewed the information provided and determined that additional information is required in order to complete its review.

#### **NRC Information Request – Question RAI-1**

*The NRC staff understands that the branch connection butt weld volumetric examination procedure is qualified to detect and length size flaws in a representative weld. The only barrier to obtaining a full qualification of the procedure and personnel, is that the depth sizing capability of the procedure and inspectors has not met the 0.125 inch RMS error requirements of ASME Code Section XI, Supplement 10. Please provide the following information:*

- 1. Confirm the NRC's understanding of the status of qualification of the branch connection weld volumetric examination procedure.*
- 2. If the NRC's understanding of the above is correct, the Performance Demonstration Initiative (PDI) often provides the inspection personnel with the actual RMS error obtained during the testing for Supplement 10 inspections when an inspector is not able to achieve a 0.125 inch or less RMS depth sizing error. Please provide the RMS error for the depth sizing obtained during PDI testing on the mockups.*

#### **ENO Response**

1. The NRC's understanding of the current procedure and personnel qualification status for branch connections inspections by the ENO vendor is correct. Procedure and personnel are qualified to detect and length-size flaws in accordance with ASME Code, Section XI, Appendix VIII, however, the depth

## **ATTACHMENT**

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sizing capability is not within the ASME Code, Section XI, Appendix VIII - Supplement 10, required 0.125 inch root-mean-square error (RMSE).

2. Based upon data provided by the Electric Power Research Institute (EPRI) from all candidates who took part in the procedure qualification activities, the errors are as follows:

- Supplement 10 – 0.242 inch RMSE
- Largest oversizing error – 0.354 inch
- Largest undersizing error – 0.357 inch