



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

December 14, 2009

Mr. Joseph N. Jensen
Senior Vice President and
Chief Nuclear Officer
Indiana Michigan Power Company
Nuclear Generation Group
One Cook Place
Bridgman, MI 49106

SUBJECT: DONALD C. COOK NUCLEAR PLANT, UNIT 1 – REQUEST FOR ADDITIONAL
INFORMATION REGARDING RELIEF REQUEST (ISIR-31) (TAC NO. ME2165)

Dear Mr. Jensen:

By letter dated August 21, 2009 (Agencywide Documents Access and Management System Accession No. ML092450590), Indiana Michigan Power Company submitted a relief request for U.S. Nuclear Regulatory Commission (NRC) staff approval of an alternative to the examination requirements of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Section XI, Table IWB-2500-1, Examination Category B-D, Item No. B3.120, volumetric examinations for the CNP-1 pressurizer surge nozzle inner radius region.

The NRC staff of the Piping and NDE Branch of the Office of Nuclear Reactor Regulation completed its review of this submittal and determined that additional information was required to complete the review. The finalized requests for additional information (RAIs) are being issued as an enclosure to this letter.

As agreed upon with Mr. Michael Scarpello of your staff, please respond to the RAIs within 30 days of receipt of this letter. If you have any questions, please contact me at (301) 415-3049.

Sincerely,

A handwritten signature in black ink, appearing to read "Terry A. Beltz", with a long horizontal line extending to the right.

Terry A. Beltz, Senior Project Manager
Plant Licensing Branch III-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-315

Enclosure:
As stated

cc: Distribution via ListServ

REQUEST FOR ADDITIONAL INFORMATION

RELIEF REQUEST ISIR-31

PROPOSED ALTERNATIVE FOR THE THIRD INSERVICE INSPECTION INTERVAL

INDIANA MICHIGAN POWER COMPANY

DONALD C. COOK NUCLEAR PLANT, UNIT 1

DOCKET NO. 50-315

By letter dated August 21, 2009 (Agencywide Documents Access and Management System Accession No. ML092450590), Indiana Michigan Power Company (the licensee), submitted Relief Request ISIR-31 for Nuclear Regulatory Commission review and approval. The licensee requested relief from certain examination requirements of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code). Specifically, the licensee proposed an alternative to the examination requirements of ASME Code Section XI, Table IWB-2500-1, Examination Category B-D, Item No. B3.120, volumetric examination requirements for the pressurizer inner nozzle radius (INR) section.

1. On pages two and three of the submittal, the licensee provides a discussion of access difficulties associated with volumetric or visual examination of the INR, 14"-1-RC-5-IRS. The configuration specifics need clarification as follows:
 - a. Provide a sketch of the cast pressurizer nozzle and adjacent region showing the interferences (heaters, insulation, welds, etc.) to exterior volumetric examinations.
 - b. Provide a sketch of the pressurizer nozzle region showing the restrictions (screen, baffle plates, thermal sleeve, etc.) to interior visual examinations.
 - c. Provide the identification of the different materials (cast carbon steel, cast stainless steel, inconel butter, stainless steel cladding, etc.) on the sketches.
 - d. Provide a sketch identifying the inner radius area (percent of coverage) that can be visually examined from the interior. Discuss the process involved in moving some of these restrictions and the contribution such an effort would have on examination coverage.
2. Photo imaging has made great strides in camera maneuverability, miniaturization, and flaw resolution.

Provide a discussion on the state-of-the-art equipment that was evaluated for interior examinations. (Note: NUREG/CR-6943, "A Study of Remote Visual Methods to Detect Cracking in Reactor Components")

3. On page four of the submittal, the licensee stated that first and second inservice inspection interval examinations were performed on Units 1 and 2.

For each unit, pressurizer and interval, please identify the INR examination method that was used, the examination coverage achieved, and outage date.

4. On page four of the submittal, the licensee provided a discussion on failure mechanisms. The INR are clad to minimize corrosion, and the INR were examined prior to plant startup for cracks. Thermal sleeves were installed to minimize thermal cracking. NUREG-0619, "BWR Feedwater Nozzle and Control Rod Drive Return Line Nozzle Cracking," documents the effects of thermal cycling on cracking the INR region.

Provide a discussion on the effects that thermal cycling has on the INR stresses and on the stress-initiating cracks.

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 Nuclear Generation Group
 One Cook Place
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Sincerely,

/RA/

Terry A. Beltz, Senior Project Manager
 Plant Licensing Branch III-1
 Division of Operating Reactor Licensing
 Office of Nuclear Reactor Regulation

Docket No. 50-315

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* concurrence via memo

OFFICE	NRR/LPL3-1/PM	NRR/LPL3-1/LA	NRR/DCI/CPNB/BC	NRR/LPL3-1/BC
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DATE	12/14/09	12/10/09	11/18/09	12/14/09