



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

May 1, 2013

Mr. Lawrence J. Weber  
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 2 - REVIEW OF THE 2012 STEAM  
GENERATOR TUBE INSERVICE INSPECTION RESULTS (TAC NO. ME9720)

Dear Mr. Weber:

By letter dated October 2, 2012 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML12284A278), Indiana Michigan Power Company, (the licensee), submitted information summarizing the results of the 2012 steam generator (SG) tube inspections at the Donald C. Cook Nuclear Plant, Unit 2. The licensee provided additional information regarding the SG tube inspections on January 10, 2013 (ADAMS Accession No. ML13014A094).

The U.S. Nuclear Regulatory Commission (NRC) staff has completed its review of the submittal and concludes that the licensee provided the information required by its technical specifications. No additional follow-up is required at this time. The NRC staff's review of the reports is enclosed.

Please direct any inquiries to me at 301-415-4037, or [thomas.wengert@nrc.gov](mailto:thomas.wengert@nrc.gov).

Sincerely,

A handwritten signature in black ink, reading "Thomas J. Wengert", is positioned above the typed name.

Thomas J. Wengert, Senior Project Manager  
Plant Licensing Branch III-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-316

Enclosure:  
As stated

cc w/encl: Distribution via Listserv

OFFICE OF NUCLEAR REACTOR REGULATION  
REVIEW OF RESULTS OF 2012 STEAM GENERATOR TUBE INSPECTIONS

DONALD C. COOK NUCLEAR PLANT, UNIT 2

DOCKET NO. 50-316

By letter dated October 2, 2012 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML12284A278), Indiana Michigan Power Company (the licensee), submitted information summarizing the results of the 2012 steam generator (SG) tube inspections at the Donald C. Cook Nuclear Plant (CNP), Unit 2. The licensee provided additional information regarding the inspections on January 10, 2013 (ADAMS Accession No. ML13014A094).

CNP, Unit 2, has four Westinghouse Model 54F SGs, which are designated SG21, SG22, SG23, and SG24. The SGs contain 3,592 thermally-treated Inconel 690 tubes with a nominal outside diameter of 0.875 inches and a nominal wall thickness of 0.050 inches. The tubes are hydraulically expanded into the tubesheet and are supported by seven Type 405 stainless steel support plates, which are 1.12 inches thick. These support plates contain quatrefoil-shaped holes through which the tubes pass. These SGs began operation in 1989.

The licensee provided the scope, extent, methods, and results of their SG tube inspections in the documents referenced above. In addition, the licensee described corrective actions (i.e., tube plugging) taken in response to the inspection findings. At the time of the inspection, CNP, Unit 2, was in the second sequential inservice inspection period (108 effective full-power months).

Based on the review of the information provided, the U.S. Nuclear Regulatory Commission (NRC) staff has the following observations and comments:

- Water lancing and an advanced scale conditioning agent were applied to each SG, resulting in the removal of approximately 6000 pounds of material from the four SGs.
- Minor pitting was reported in the underside of the primary separator diffuser window.

Based on a review of the information provided, the NRC staff concludes that the licensee provided the information required by their technical specifications. In addition, the staff concludes that there are no technical issues that warrant follow-up action at this time, since the inspections appear to be consistent with the objective of detecting potential tube degradation and the inspection results appear to be consistent with industry operating experience at similarly designed and operated units.

Enclosure

May 1, 2013

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Chief Nuclear Officer  
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One Cook Place  
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GENERATOR TUBE INSERVICE INSPECTION RESULTS (TAC NO. ME9720)

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Sincerely,

/RA/

Thomas J. Wengert, Senior Project Manager  
Plant Licensing Branch III-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

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ADAMS Accession No.: ML13106A362

\*Memo dated 2/27/13 (ML13025A059)

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