March 28, 2008

Mr. Michael W. Rencheck
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 - REVIEW OF THE STEAM GENERATOR TUBE INSERVICE INSPECTION REPORT (TAC NOS. MD5944 AND MD5945)

Dear Mr. Rencheck:

By letters dated October 31, 2006, February 27, 2007, and February 7, 2008, Indiana Michigan Power Company (I&M) submitted information pertaining to the year 2006 steam generator (SG) tube inspections at Donald C. Cook Nuclear Plant, Unit 1 (DCCNP-1). I&M performed no SG tube inspections in Unit 2 during 2006.

The Nuclear Regulatory Commission (NRC) staff has completed its review of these submittals and concludes that I&M provided the information required by the DCCNP-1 Technical Specifications and that no additional follow-up is required at this time. The NRC staff's review report is enclosed.

If you have any questions, please feel free to contact me.

Sincerely,

/RA/

Peter S. Tam, Senior Project Manager
Plant Licensing Branch 3-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-315 and 50-316

Enclosure:
Staff Evaluation

cc: See next page

March 28, 2008

Mr. Michael W. Rencheck
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 - REVIEW OF THE STEAM GENERATOR TUBE INSERVICE INSPECTION REPORT (TAC NOS. MD5944 AND MD5945)

Dear Mr. Rencheck:

By letters dated October 31, 2006, February 27, 2007, and February 7, 2008, Indiana Michigan Power Company (I&M) submitted information pertaining to the year 2006 steam generator (SG) tube inspections at Donald C. Cook Nuclear Plant, Unit 1 (DCCNP-1). I&M performed no SG tube inspections in Unit 2 during 2006.

The Nuclear Regulatory Commission (NRC) staff has completed its review of these submittals and concludes that I&M provided the information required by the DCCNP-1 Technical Specifications and that no additional follow-up is required at this time. The NRC staff's review report is enclosed.

If you have any questions, please feel free to contact me.

Sincerely,
/RA/
Peter S. Tam, Senior Project Manager
Plant Licensing Branch 3-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-315 and 50-316
Enclosure:
Staff Evaluation
cc: See next page

DISTRIBUTION

PUBLIC	LPL3-1 R/F	RidsNrrDorlLpl3-1	RidsNrrPMPTam
RidsNrrLATHarris	RidsOgcRp	RidsAcrsAcnw&mMailCenter	RidsNrrDeEeeb
RidsRgn3MailCenter	AHiser, NRR	AJohnson, NRR	KKarwoski, NRR

ACCESSION NUMBER: **ML080810521**

OFFICE	LPL3-1/PM	LPL3-1/LA	DE/EEEB/BC*	LPL3-1/BC
NAME	PTam	THarris	AHiser*	LJames
DATE	3/25/08	3/25/08	3/11/08	3/ 28/08

*Evaluation transmitted by letter of 3/11/08.

OFFICIAL RECORD COPY

REVIEW REPORT BY THE OFFICE OF NUCLEAR REACTOR REGULATION

DONALD C. COOK NUCLEAR PLANT, UNIT 1 (DCCNP-1)

2006 STEAM GENERATOR TUBE INSERVICE INSPECTION REPORTS

By letters dated October 31, 2006 (Agencywide Document Access and Management System (ADAMS) Accession No. ML063130412), and February 27, 2007 (ADAMS Accession No. ML070660516), Indiana Michigan Power Company (I&M, the licensee) submitted information pertaining to its 2006 steam generator (SG) tube inspections at DCCNP-1. No SG tube inspections were performed in Unit 2 during 2006. The licensee also provided information regarding the SG inspections in a letter dated February 7, 2008 (ADAMS Accession No. ML080510694), in response to a request for additional information by the Nuclear Regulatory Commission (NRC) staff, dated December 13, 2007 (ADAMS Accession No. ML073200204).

DCCNP-1 has 4 Model 51R recirculating SGs designed and fabricated by Babcock and Wilcox International. Each SG has 3,496 thermally-treated, Alloy 690 tubes that have an outside diameter of 0.875 inches, and a nominal wall thickness of 0.049 inches. The tubes are supported by Type 410 stainless steel, lattice-grid tube supports, and flat fan bars. The tubes were hydraulically expanded at each end for the full depth of the tubesheet.

The licensee provided the scope, extent, methods, and results of its SG tube inspections in the documents referenced above. In addition, the licensee described corrective actions (e.g., tube plugging) taken in response to the inspection findings.

After review of the information provided by the licensee, the NRC staff made the following comments/observations:

- The licensee has ceased using manual identification of tube locations during SG plugging operations to prevent reoccurrence of the process that resulted in a tube plugging error in 2002.

- Several locations were identified that had loose parts or wear attributed to loose parts. These locations were identified through a combination of eddy current and visual inspections. Some of the loose parts were only detected through visual examination and not during the eddy current inspections. In addition, some of the loose parts were only detected with a rotating probe and not with a bobbin probe. All peripheral tubes (the locations where many of the loose parts were found) were not inspected with eddy current techniques (either with a bobbin or rotating probe). The bobbin probe detected the two largest wear signals attributed to foreign objects.

- In response to a request for additional information, the licensee indicated that it would satisfy the prescriptive inspection requirements of the Unit 1 Technical Specifications. In this response, however, the licensee did not indicate whether tube integrity would be maintained during these operating intervals (a requirement of the Technical

Specifications). Despite the lack of a specific statement by the licensee regarding tube integrity, the NRC staff expects that the licensee has confirmed the tube integrity will be maintained for the planned operating interval between inspections. The NRC staff's expectations are based on the scope and results of the licensee's inspections and operating experience at similar plants.

Based on a review of the information provided by the licensee, the NRC staff concludes that the licensee provided the information required by Unit 1's Technical Specifications. The SG tube inspections at DCCNP-1 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.

Principal Contributor: Andrew B. Johnson
Kenneth Karwoski

Dated: March 28, 2008

Donald C. Cook Nuclear Plant, Units 1 and 2
cc:

Attorney General
Department of Attorney General
525 West Ottawa Street
Lansing, MI 48913

Township Supervisor
Lake Township Hall
P.O. Box 818
Bridgman, MI 49106

U.S. Nuclear Regulatory Commission
Resident Inspector's Office
7700 Red Arrow Highway
Stevensville, MI 49127

Kimberly Harshaw, Esquire
Indiana Michigan Power Company
One Cook Place
Bridgman, MI 49106

Mayor, City of Bridgman
P.O. Box 366
Bridgman, MI 49106

Special Assistant to the Governor
Room 1 - State Capitol
Lansing, MI 48909

James M. Petro, Jr.
Regulatory Affairs Manager
Indiana Michigan Power Company
Nuclear Generation Group
One Cook Place
Bridgman, MI 49106

Michigan Department of Environmental Quality
Waste and Hazardous Materials Div.
Radiological Protection Section
Radiological Assessment Unit
Constitution Hall, Lower-Level North
525 West Allegan Street
P. O. Box 30241
Lansing, MI 48909-7741

Joel P. Gebbie, Plant Manager
Indiana Michigan Power Company
Nuclear Generation Group
One Cook Place
Bridgman, MI 49106

Mark A. Peifer, Site Vice President
Indiana Michigan Power Company
Nuclear Generation Group
One Cook Place
Bridgman, MI 49106