September 10, 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, UNITS 1 AND 2 - REVIEW OF THE STEAM GENERATOR TUBE INSERVICE INSPECTION REPORT (TAC NOS. MD8396 AND MD8397)

Dear Mr. Rencheck:

By letters dated March 18, and August 5, 2008, Indiana Michigan Power Company (I&M) submitted information pertaining to the year 2007 steam generator (SG) tube inspections at the Donald C. Cook Nuclear Plant (CNP), Units 1 and 2. No SG tube inspections were performed at CNP Unit 1 during 2007.

The U.S. Nuclear Regulatory Commission (NRC) staff has completed its review of these submittals and concludes that I&M provided the information required by the CNP Unit 2 Technical Specifications and that no additional follow-up is required at this time. The NRC staff's review report is enclosed. This completes the staff efforts for TAC Nos. MD8396 and MD8397.

If you have any questions regarding this matter, I can be contacted at 301-415-3049.

Sincerely,

**/RA/**

Terry A. Beltz, Senior Project Manager
Plant Licensing Branch III-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

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| NAME | TBeltz | PTam | THarris | AHiser* | LJames |
| DATE | 09/9 /08 | 09/ 10 /08 | 09/ 9 /08 | 09/02/08 | 09/ 10 /08 |

*Evaluation transmitted by letter of 09/02/2008.

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EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

DONALD C. COOK NUCLEAR PLANT, UNITS 1 AND 2

2007 STEAM GENERATOR TUBE INSERVICE INSPECTION REPORTS

## 1.0 INTRODUCTION

By letter dated March 18, 2007 (Agencywide Document Access and Management System (ADAMS) Accession No. ML080870429) Indiana Michigan Power Company (I&M, the licensee) submitted information pertaining to its 2007 steam generator (SG) tube inspections at the Donald C. Cook Nuclear Power Plant (CNP), Units 1 and 2. The licensee provided additional information regarding the SG tube inspections in a letter dated August 5, 2008 (ADAMS Accession No. ML082390706).

No SG tube inspections were performed at CNP Unit 1 during 2007.

## 2.0 BACKGROUND

The CNP Unit 2 has four Westinghouse Model 54F SGs which are designated SG21, SG22, SG23, and SG24. All four SGs were inspected during the 2007 refueling outage. The Westinghouse Model 54F SG consists of 3,592 thermally-treated Iconel 60 tubes with an outside diameter of 0.875 inches and a wall thickness of 0.050 inches. The tubes have been hydraulically expanded into the tubesheet and are supported by seven 1.12-inch-thick Type 405 stainless steel support plates which contain quatrefoil-shaped holes through which the tubes pass. The four CNP Unit 2 SGs commenced operation in 1989.

The licensee provided the scope, extent, methods, and results of their SG tube inspections in the documents referenced above. The licensee also 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 first sequential inservice inspection period (144 Effective Full Power Months (EFPM)). The SGs had operated 132.6 EFPM in the 144 EFPM period and a total of 146 EFPM.

## 3.0 EVALUATION

After reviewing the information provided by the licensee, the U.S. Nuclear Regulatory Commission (NRC) staff made the following observations and comments:

- Steam drum inspections were performed in SG22 and SG23 with a focus on the feedring header/supports, J-nozzles, and moisture separator units. In SG22, an area of minor surface pitting was found on the underside of the primary diffuser window. The licensee did not consider this condition abnormal or to be of concern to the functionality or integrity of the separator assembly. This area will be monitored in all SGs during future inspections.

- In SG21, SG22, and SG24, some objects (sludge rocks and pieces of metal) were identified during a foreign object search and retrieval that were not able to be retrieved and were left in place. These items were documented and evaluated by the licensee to ensure that SG tube integrity would be maintained. The licensee plans to re-examine the non-sludge rock items in their next scheduled inspection outage.

## 4.0 CONCLUSIONS

The NRC staff concludes that the licensee provided the information required by the CNP Unit 2 Technical Specifications. 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.

Principal Contributor: Emma Wong
Kenneth Karwoski

Dated: September 10, 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

James M. Petro, Jr.
Senior Nuclear Counsel
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

John A. Zwolinski
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

Lawrence J. Weber, Site Vice President
Indiana Michigan Power Company
Nuclear Generation Group
One Cook Place
Bridgman, MI 49106