INDIANA MICHIGAN POWER

Indiana Michigan Power Company
Nuclear Generation Group
One Cook Place
Bridgman, MI 49106
aep.com

December 17, 2008

AEP-NRC-2008-54
10 CFR 50.90

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Mail Stop O-P1-17
Washington, DC 20555-0001

SUBJECT: Donald C. Cook Nuclear Plant Units 1 and 2
Docket Nos. 50-315 and 50-316

Response to Second Request for Additional Information Regarding Proposed Amendment to Emergency Diesel Generator Technical Specifications for Steady State Frequency (TAC Nos. MD8773 and MD8774)

References:

1) Letter from J. N. Jensen, Indiana Michigan Power Company (I&M), to U. S. Nuclear Regulatory Commission (NRC) Document Control Desk, "Technical Specification Change of Diesel Generator Maximum Steady State Frequency," AEP:NRC:6381-05, dated June 27, 2007 (ML071910238).

2) Letter from P. S. Tam, NRC, to M. W. Rencheck, I&M, "D. C. Cook Nuclear Plant, Units 1 and 2 – Revised Request for Additional Information Regarding Proposed Amendment on Emergency Diesel Generator Steady State Frequency (TAC Nos. MD5899 and MD5900)," dated March 20, 2008 (ML080720021).

3) Letter from J. N. Jensen, I&M, to NRC Document Control Desk, "Response to Revised Request for Additional Information Regarding Proposed Amendment on Emergency Diesel Generator Steady State Frequency (TAC Nos. MD5899 and MD5900)," AEP:NRC:8381, dated April 28, 2008 (ML081280649).

4) Letter from J. N. Jensen, I&M, to NRC Document Control Desk, "Supplement to Emergency Diesel Generator Maximum Steady State Frequency Amendment Request," AEP:NRC:8381-01, dated September 4, 2008 (ML082600469).

5) Letter from T. A. Beltz, NRC, to M. W. Rencheck, I&M, "D. C. Cook Nuclear Plant, Units 1 and 2 – Request for Additional Information (Second Round) Regarding Technical Specification Change Related to Diesel Generator Maximum Steady State Frequency (TAC Nos. MD8773 and MD8774)," dated November 21, 2008 (ML083250488).

A001
NRR

Dear Sir or Madam:

This letter provides Indiana Michigan Power Company's (I&M's) response to a second Nuclear Regulatory Commission (NRC) Request for Additional Information (RAI) regarding proposed changes to the diesel generator Technical Specifications (TS) for Donald C. Cook Nuclear Plant (CNP).

By Reference 1, I&M proposed to modify the CNP Unit 1 and Unit 2 TS to address a nonconservative limit for diesel generator steady state frequency. By Reference 2, the NRC transmitted an RAI regarding the proposed amendment. In I&M's response (Reference 3) to the RAI, I&M stated that the original amendment request would be supplemented. The supplement was provided by Reference 4. By Reference 5, the NRC transmitted a second RAI. The second RAI pertains to changes to the frequency limits specified in the TS for diesel generator load rejection testing as proposed in the amendment request supplement. This letter provides I&M's response to the second RAI.

Enclosure 1 to this letter provides an affirmation pertaining to the information provided herein. Enclosure 2 provides I&M's response to the second RAI.

This letter contains no new or revised regulatory commitments. Copies of this letter and its enclosures are being transmitted to the Michigan Public Service Commission and Michigan Department of Environmental Quality, in accordance with the requirements of 10 CFR 50.91. Should you have any questions, please contact Mr. John A. Zwolinski, Regulatory Affairs Manager, at (269) 466-2478.

Sincerely,

Lawrence Jweber

Lawrence J. Weber
Site Vice President

JRW/rdw

Enclosures:

1. Affirmation
2. Response to Second Request for Additional Information

c: T. A. Beltz, NRC Washington, DC
J. L. Caldwell, NRC Region III
K. D. Curry, Ft. Wayne AEP, w/o enclosures
J. T. King, MPSC
MDEQ – WHMD/RPS
NRC Resident Inspector

Enclosure 1 to AEP-NRC-2008-54

AFFIRMATION

I, Lawrence J. Weber, being duly sworn, state that I am Site Vice President of Indiana Michigan Power Company (I&M), that I am authorized to sign and file this request with the Nuclear Regulatory Commission on behalf of I&M, and that the statements made and the matters set forth herein pertaining to I&M are true and correct to the best of my knowledge, information, and belief.

Indiana Michigan Power Company

Lawrence J. Weber
Site Vice President

SWORN TO AND SUBSCRIBED BEFORE ME

THIS 17th DAY OF December, 2008

Regan D. Wendzel
Notary Public

My Commission Expires

REGAN D. WENDZEL
Notary Public, Berrien County, MI
My Commission Expires Jan. 21, 2009

Enclosure 2 to AEP-NRC-2008-54

RESPONSE TO SECOND REQUEST FOR ADDITIONAL INFORMATION

BACKGROUND

This enclosure provides Indiana Michigan Power Company's (I&M's) response to a letter from T. A. Beltz, U. S. Nuclear Regulatory Commission (NRC), to M. W. Rencheck, I&M, dated November 21, 2008 (ML083250488), regarding a proposed change to the Technical Specifications for Donald C. Cook Nuclear Plant Unit 1 and Unit 2. The NRC letter requested the following information:

NRC Request

In supplemental information dated September 4, 2008 (ADAMS Accession No. ML082600469), the licensee proposed change to the maximum DG [(diesel generator)] frequency allowed within 2 seconds following rejection of the single largest post-accident load in the surveillance requirement (SR) 3.8.1.10.c from 61.2 hertz (Hz) to 60.5 Hz.

In the Technical Specification (TS) Bases SR 3.8.1.10, the licensee stated that 2 seconds specified is equal to approximately 60 percent of the 3.49 seconds load sequence interval associated with sequencing of the largest load. According to the Updated Final Safety Analysis Report, Section 8.4, the largest sequenced load is the Centrifugal Charging Pump (600 hp) which is sequenced at 13 seconds; i.e., 3 seconds after the first block load connection at 10 seconds. The next load is sequenced at 17 seconds.

(1) Please explain how the 2 seconds specified is equal to approximately 60 percent of the load sequence interval associated with sequencing of the largest load.

(2) Please explain the basis for the 3.49 second sequence interval which is stated in the TS Bases.

I&M Response to NRC Request

Updated Final Safety Analysis Report Section 8.4 provides nominal load sequence times rather than actual setpoints. The sequencing relay required setpoint for the Centrifugal Charging Pump is 3.16 seconds. When added to the 10 second DG start time, the load sequence time is 13.16 seconds. The next load to sequence on the DG is the Safety Injection Pump. The sequencing relay required setpoint for the Safety Injection Pump is 6.65 seconds, resulting in a load sequence time of 16.65 seconds. The referenced 3.49 second load sequence interval is 16.65 - 13.16 = 3.49 seconds. The 2 second recovery time is based on 60% of the 3.49 second interval, i.e., 0.6 x 3.49 = 2.09 seconds, or approximately 2 seconds. For the purposes of the test, rounding down is conservative (i.e., a faster voltage and frequency recovery enhances the ability of the machine to accept the next sequenced load within allowable voltage and frequency limits).