



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

June 15, 2015

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 NOS. 1 AND 2 – REQUEST FOR
ADDITIONAL INFORMATION REGARDING LICENSE AMENDMENT
REQUEST TO REVISE TECHNICAL SPECIFICATION 3.8.1 (TAC
NOS. MF5436 AND MF5437)**

Dear Mr. Weber:

By letter dated December 17, 2014 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML14356A022), Indiana Michigan Power Company (I&M, the licensee) requested an amendment to Facility Operating Licenses DPR-58 and DPR-74 for Donald C. Cook Nuclear Plant, Units 1 and 2. The proposed amendments would revise the Technical Specifications (TS) 3.8.1, "AC [Alternating Current] Sources – Operating," to allow testing of the onsite standby emergency diesel generators (DGs) during modes in which it is currently prohibited.

Specifically, the proposed changes would remove the mode restrictions in the notes of Surveillance Requirements 3.8.1.10 (DG single largest load rejection test), 3.8.1.11 (DG full load rejection test), and 3.8.1.15 (DG endurance run).

The U.S. Nuclear Regulatory Commission (NRC) staff has reviewed the subject submittal and determined that additional information is needed to complete the review, as described in the enclosed Requests for Additional Information (RAIs). The draft RAIs were sent to I&M via electronic mail on June 2, 2015. The NRC staff clarified the draft RAIs in a conference call conducted on June 10, 2015. Based on our discussion, we understand that a response to the RAIs will be provided by July 10, 2015.

L. Weber

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Please feel free to contact me at (301) 415-2846 if you have any additional questions or concerns.

Sincerely,

A handwritten signature in black ink, appearing to read "Allison W. Dietrich". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Allison W. Dietrich, 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:
Request for Additional Information

cc: Distribution via ListServ

REQUESTS FOR ADDITIONAL INFORMATION REGARDING
LICENSE AMENDMENT REQUEST TO REVISE TECHNICAL SPECIFICATION
SURVEILLANCE REQUIREMENTS 3.8.1.10, 3.8.1.11, AND 3.8.1.15
DONALD C. COOK NUCLEAR PLANT, UNITS 1 AND 2
DOCKET NOS. 50-315 AND 50-316

The U.S. Nuclear Regulatory Commission staff has determined that the following additional information is needed to complete the review of the Indiana Michigan Power Company license amendment request (LAR) dated December 17, 2014, for the Donald C. Cook Nuclear Plant (CNP), Units 1 and 2.

EEEEB-RAI-1

In Sections 4.1.1.2 and 4.2.1.2 of the LAR, the licensee stated that the concern during the performance of the diesel generator (DG) single largest load rejection test (Surveillance Requirement (SR) 3.8.1.10) and the DG full load rejection test (SR 3.8.1.11) in Modes 1 or 2 is that suddenly disconnecting the DG from the associated bus could cause a voltage fluctuation on that bus that could potentially perturb the onsite alternating current (AC) electrical system. The licensee also stated that, based on industry experience, performing these tests in any modes of operation would not cause a significant perturbation that would adversely affect the onsite AC electrical system.

- a. Please provide a copy of the CNP site-specific records of bus voltage data that was monitored during the last two performances of SR 3.8.1.10 and SR 3.8.1.11, respectively, in Modes 5 and 6.
- b. Please provide a copy of the summary of computer simulation of the above load rejection tests in Modes 1 and 2 to confirm that these SRs would not adversely affect the plant onsite AC electrical system during normal plant operation.

EEEEB-RAI-2

In Sections 4.1.1.3, 4.2.1.3, and 4.3.1.2 of the LAR, regarding non-emergency trip features in effect to protect the DG during the performance of SRs 3.8.1.10, 3.8.1.11, and 3.8.1.15, the licensee stated, in part, that

If an emergency (ESF [engineered safeguard features] and/or LOOP [loss of offsite power]) demand occurs with these non-emergency trips in effect, the affected DG will automatically revert to the emergency mode and bypass these trips. No operator action is required. Upon detection of under voltage on the safety-related 4160v [Volt] bus, load shedding for all vital loads and non-permanently connected loads from the 4160v bus

Enclosure

would occur followed by re-sequencing of the vital loads back onto the affected 4160v bus.

- a. Please discuss all electrical protective devices provided for the DG.
- b. Please discuss whether the DG will be overloaded while operating in parallel with an offsite source if a LOOP occurs during performance of the above SRs in Modes 1 or 2. Discuss the DG overload protection during this scenario.
- c. Please discuss the sequencing of vital loads for each of these events: (a) LOOP (b) loss-of-coolant accident (LOCA), and (c) LOOP concurrent with LOCA, if they occur while the DG is operating in parallel with the offsite power during performance of the above SRs in Modes 1 or 2.

EEEB-RAI-3

Please provide an analysis of the scenario(s) if a fault occurs on any bus upstream of the DG-connected bus while the DG is operating in parallel with an offsite source with the DG bus fed from Unit Auxiliary Transformer or Reserve Auxiliary Transformer in Modes 1 or 2. Also, discuss the DG protection during these scenarios, and clarify whether the DG can lockout on overcurrent.

EEEB-RAI-4

Please provide a summary of the impact of an increase in short circuit current on the switchgear ratings and on the protection settings due to the proposed DG operating in parallel with an offsite source during Modes 1 or 2, in order to perform SRs 3.8.10, 3.8.1.11, and 3.8.1.15.

L. Weber

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Please feel free to contact me at (301) 415-2846 if you have any additional questions or concerns.

Sincerely,

/RA/

Allison W. Dietrich, 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:
Request for Additional Information

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ADAMS Accession No.: ML15163A167

*via memorandum

OFFICE	DORL/LPL3-1/PM	DORL/LPL3-1/LA	DE/EEEB/BC*	DORL/LPL3-1/BC	DORL/LPL3-1/PM
NAME	ADietrich	MHenderson (JBurkhardt for)	JZimmerman (SRay for)	DPelton	ADietrich
DATE	6/12/2015	6/12/2015	5/29/2015	6/12/2015	6/15/2015

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