



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

November 1, 2017

OMB Control No. 3150-0231

Mr. Joel P. Gebbie
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 GENERIC LETTER 2016-01,
"MONITORING OF NEUTRON-ABSORBING MATERIALS IN SPENT FUEL
POOLS" (CAC NOS. MF9444 AND MF9445; EPID L-2016-LRC-0001)

Dear Mr. Gebbie:

On April 7, 2016, the U.S. Nuclear Regulatory Commission (NRC) issued Generic Letter (GL) 2016-01, "Monitoring of Neutron-Absorbing Materials in Spent Fuel Pools" (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16097A169). The GL 2016-01 requested power reactor licensees to provide information demonstrating that neutron-absorbing materials in the spent fuel pool, which are credited in the criticality safety analyses, are in compliance with the licensing basis, design bases, and regulatory requirements, and that measures are in place to maintain this compliance.

By letter dated October 31, 2016 (ADAMS Accession No. ML16307A118), Indiana Michigan Power Company's (I&M) submitted its response to GL 2016-01 for the Donald C. Cook Nuclear Plant (CNP).

The NRC staff has determined that additional information is needed to complete the review of the response to GL 2016-01 for CNP. A response to the enclosed request for additional information shall be provided by May 31, 2018.

Should you have any questions, please contact me at 301-415-1530 or by email at jennivine.rankin@nrc.gov.

Sincerely,

A handwritten signature in cursive script, appearing to read "Jennivine Rankin".

Jennivine Rankin, Project Manager
Plant Licensing Branch III
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-315 and 50-316

Enclosure: Request for Additional Information

cc w/encl: Distribution via ListServ

REQUEST FOR ADDITIONAL INFORMATION

GENERIC LETTER 2016-01

"MONITORING OF NEUTRON-ABSORBING MATERIALS IN SPENT FUEL POOLS"

INDIANA MICHIGAN POWER COMPANY

DONALD C. COOK, UNIT NOS. 1 AND 2

DOCKET NOS. 50-315 AND 50-316

On April 7, 2016, the U.S. Nuclear Regulatory Commission (NRC) issued Generic Letter (GL) 2016-01, "Monitoring of Neutron-Absorbing Materials in Spent Fuel Pools" (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16097A169). The GL 2016-01 requested power reactor licensees to provide information demonstrating that neutron-absorbing materials (NAM) in the spent fuel pool (SFP), which are credited in the criticality safety analyses, are in compliance with the licensing basis, design bases, and regulatory requirements, and that measures are in place to maintain this compliance. Appendix A to GL 2016-01 provided guidance applicable to certain licensees on the level of detail expected for the response to the request.

For licensees that utilize NAM in the SFP, the properties of the NAM must be known so that the assumptions in the SFP nuclear criticality safety (NCS) analysis of record (AOR) are supported. The NRC staff needs to verify that the potential reactivity changes due to degradation or physical changes to the NAM are accounted for in the SFP NCS AOR. This includes any changes that would affect the neutron spectrum for the SFP in addition to any loss of neutron attenuation capability.

By letter dated October 31, 2016 (ADAMS Accession No. ML16307A118), Indiana Michigan Power Company's (I&M) submitted its response to GL 2016-01 for the Donald C. Cook Nuclear Plant, Unit Nos. 1 and 2 (CNP). The NRC staff has determined that the additional information below is needed to complete the review of the response to GL 2016-01 for CNP.

Generic Boral-RAI-2

I&M's October 31, 2016, letter indicates that the CNP monitoring program has identified material deformation associated with blisters in Boral similar to the industry operating experience described in IN 2009-26, "Degradation of Neutron-Absorbing Materials in the Spent Fuel Pool" (ADAMS Accession No. ML092440545).

Discuss the criticality impact due to the material deformation identified at CNP, and how it can be accommodated by the NCS AOR without exceeding subcriticality requirements.

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ADAMS Accession No.: ML17304A010

***via email**

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