

September 6, 2000

Mr. Robert P. Powers, Senior Vice President  
Indiana Michigan Power Company  
Nuclear Generation Group  
500 Circle Drive  
Buchanan, MI 49107

SUBJECT: DONALD C. COOK NUCLEAR PLANT UNITS 1 AND 2 - COMPLETION OF LICENSING ACTIVITY FOR GENERIC LETTER 96-01, "TESTING OF SAFETY-RELATED LOGIC CIRCUITS," DATED JANUARY 10, 1996 (TAC NOS. M94665, M94666, MA7772 AND MA7773)

Dear Mr. Powers:

On January 10, 1996, the U.S. Nuclear Regulatory Commission (NRC) issued Generic Letter (GL) 96-01, "Testing of Safety-Related Logic Circuits," to all holders of operating licenses or construction permits. The NRC issued GL 96-01 for three principal reasons:

1. Notify addressees about problems with testing of safety-related logic circuits;
2. Request that all addressees implement the actions described within the GL; and
3. Require that all addressees submit to the NRC a written response regarding implementation of the requested actions.

In GL 96-01, the NRC staff specifically requested that licensees take the following actions:

1. Compare electrical schematics and logic diagrams for the reactor protection system, emergency diesel generator load shedding and sequencing, and actuation logic for the engineered safety feature systems against plant surveillance test procedures to ensure that all portions of the logic circuitry, including the parallel logic, interlocks, bypasses, and inhibit circuits, are adequately covered in the surveillance procedures to fulfill the technical specification requirements. This review should also include relay contacts, control switches, and other relevant electrical components within these systems, utilized in the logic circuits performing a safety function; and
2. Modify the surveillance procedures as necessary for complete testing to comply with the technical specifications. Additionally, the licensee may request an amendment to the technical specifications if relief from certain testing requirements can be justified.

Furthermore, the NRC staff required that addressees prepare and submit the following:

1. A written response indicating whether or not the licensee would implement the actions requested above or propose an alternative action;
2. A schedule for completing the requested actions or proposed alternative; and
3. A response confirming completion of the requested actions.

In response to GL 96-01, your staff provided letters dated April 17, 1996, and October 28, 1997, for Donald C. Cook Nuclear Plant (D.C. Cook) Units 1 and 2. The NRC staff reviewed the letters and found that your staff had provided the required information. By letter dated November 17, 1997, the NRC confirmed that your responses to the GL 96-01 were adequate. By letter dated December 17, 1999, following your enhanced system readiness reviews, your staff provided a new response to GL 96-01. In this letter, your staff identified four discrepancies that were determined to be reportable under 10 CFR 50.73(a)(2)(i)(B). This was reported in Licensee Event Report (LER) 315/99-021-00 dated August 27, 1999. The four discrepancies are described below:

- Control Room Ventilation System (CRVS)

The control room ventilation system does not have a surveillance procedure to test the system on a control room high radiation signal.

- Permissive Signals

Surveillance procedures do not fully test the actuation of the solid state protection system (SSPS) input relays associated with permissive signals P-6, P-11, and P-12.

- Essential Services System (ESS) Voltage Available Relays

The logic circuits for each of the ESS loads fed from busses T11A, T11D, T21A, and T21D contain three parallel voltage available relays. The surveillance testing procedures do not individually test each of the three relays associated with each bus.

- Emergency Diesel Generator (EDG) Breaker Trip and Blocking Relays

The blocking relays that prevent operator intervention during the load shedding and sequencing process as well as relay 5X-CD, which prevents EDG output breaker closure for 2 seconds upon a loss-of-offsite power and/or safety injection (SI) signal, are not verified during surveillance testing.

In your staff's letter dated December 17, 1999, your staff stated that these discrepancies are being addressed via the D.C. Cook corrective action program with a resolution prior to Mode 4 entry for each unit. Also, in your staff's letter dated December 17, 1999, your staff stated that there are no new commitments; however, your staff made commitments in your staff's letter dated August 27, 1999, for LER 315/99-021-00. The following are the commitments identified in LER 315/99-021-00:

- Surveillance procedures to perform testing of the CRVS on a high radiation signal will be written.
- Surveillance procedures to test the SSPS permissive signals for all applicable conditions will be written.
- Existing surveillance procedures will be revised to test each of the three ESS voltage available paths.
- Existing surveillance procedures will be revised to test the EDG load shed and sequencing tripping and block relays.
- These procedures will be implemented and testing complete prior to Mode 4 entry for each Unit.
- Review of the implementation of GL 96-01 at D.C. Cook will be completed by September 30, 1999.

In response to GL 96-01, your staff provided letters dated April 17, 1996, October 28, 1997, January 30 and December 17, 1999, for D.C. Cook. These submittals provided the information requested and the responses required by GL 96-01. Also, your staff confirmed completion of the requested actions of GL 96-01 for Unit 2, and the requested actions will be completed for Unit 1 prior to Mode 4 entry. Therefore, TAC Nos. M94665, M94666, MA7772 and MA7773 are closed.

If you have any questions regarding this matter, please contact me at 301-415-1345.

Sincerely,

**/RA/**

John F. Stang, Senior Project Manager, Section 1  
Project Directorate III  
Division of Licensing Project Management  
Office of Nuclear Regulatory Regulation

Docket Nos. 50-315 and 50-316

cc: See next page

- Surveillance procedures to perform testing of the CRVS on a high radiation signal will be written.
- Surveillance procedures to test the SSPS permissive signals for all applicable conditions will be written.
- Existing surveillance procedures will be revised to test each of the three ESS voltage available paths.
- Existing surveillance procedures will be revised to test the EDG load shed and sequencing tripping and block relays.
- These procedures will be implemented and testing complete prior to Mode 4 entry for each Unit.
- Review of the implementation of GL 96-01 at D.C. Cook will be completed by September 30, 1999.

In response to GL 96-01, your staff provided letters dated April 17, 1996, October 28, 1997, January 30 and December 17, 1999, for D.C. Cook. These submittals provided the information requested and the responses required by GL 96-01. Also, your staff confirmed completion of the requested actions of GL 96-01 for Unit 2, and the requested actions will be completed for Unit 1 prior to Mode 4 entry. Therefore, TAC Nos. M94665, M94666, MA7772 and MA7773 are closed.

If you have any questions regarding this matter, please contact me at 301-415-1345.

Sincerely,  
*/RA/*

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 Division of Licensing Project Management  
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Docket Nos. 50-315 and 50-316

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