

September 23, 2005

Mr. Mano K. Nazar  
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 - ISSUANCE OF  
AMENDMENTS (TAC NOS. MC8306 AND MC8307)

Dear Mr. Nazar:

The U.S. Nuclear Regulatory Commission has issued the enclosed Amendment No. 290 to Facility Operating License No. DPR-58 and Amendment No. 272 to Facility Operating License No. DPR-74 for the Donald C. Cook Nuclear Plant, Units 1 and 2. The amendments consist of changes to the Technical Specifications in response to your application dated September 12, 2005.

The proposed amendments would replace the requirements of Improved Technical Specification Surveillance Requirement (SR) 3.8.1.18 with the wording of previous Technical Specifications SR 4.8.1.1.2.e.11, with minor editorial changes.

A copy of our related safety evaluation is also enclosed. A Notice of Issuance will be included in the Commission's next biweekly *Federal Register* notice.

Sincerely,

**/RA/**

Deirdre W. Spaulding, Project Manager, Section 1  
Project Directorate III  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket Nos. 50-315 and 50-316

Enclosures: 1. Amendment No. 290 to DPR-58  
2. Amendment No. 272 to DPR-74  
3. Safety Evaluation

cc w/encls: See next page

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ADAMS ACCESSION NUMBER: ML052640464 (Letter)  
ADAMS ACCESSION NUMBER: ML052640490 (Package)  
ADAMS ACCESSION NUMBER: ML052690043 (TS Pages)

OFFICE	PM:PD3-1	LA:PD3-1	EEIB	OGC	SC:PD3-1
NAME	DSpaulding	THarris	RJenkins	SUttal	LRaghavan
DATE	9/21/05	9/21/05	9/22/05	9/22/05	9/23/05

Donald C. Cook Nuclear Plant, Units 1 and 2

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INDIANA MICHIGAN POWER COMPANY

DOCKET NO. 50-315

DONALD C. COOK NUCLEAR PLANT, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 270  
License No. DPR-58

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Indiana Michigan Power Company (the licensee) dated September 12, 2005, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-58 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 290, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance and shall be implemented immediately.

FOR THE NUCLEAR REGULATORY COMMISSION

**/RA/**

L. Raghavan, Chief, Section 1  
Project Directorate III  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: September 23, 2005

ATTACHMENT TO LICENSE AMENDMENT NO. 290

TO FACILITY OPERATING LICENSE NO. DPR-58

DOCKET NO. 50-315

Replace the following page of the Appendix A Technical Specifications with the attached revised page. The revised page is identified by amendment number and contains a marginal line indicating the area of change.

REMOVE

3.8.1-14

INSERT

3.8.1-14

INDIANA MICHIGAN POWER COMPANY

DOCKET NO. 50-316

DONALD C. COOK NUCLEAR PLANT, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 272  
License No. DPR-74

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Indiana Michigan Power Company (the licensee) dated September 12, 2005, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-74 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 272, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance and shall be implemented immediately.

FOR THE NUCLEAR REGULATORY COMMISSION

**/RA/**

L. Raghavan, Chief, Section 1  
Project Directorate III  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: September 23, 2005



ATTACHMENT TO LICENSE AMENDMENT NO. 272

FACILITY OPERATING LICENSE NO. DPR-74

DOCKET NO. 50-316

Replace the following page of the Appendix A Technical Specifications with the attached revised page. The revised page is identified by amendment number and contains a marginal line indicating the area of change.

REMOVE

3.8.1-14

INSERT

3.8.1-14

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 290 TO FACILITY OPERATING LICENSE NO. DPR-58  
AND AMENDMENT NO. 272 TO FACILITY OPERATING LICENSE NO. DPR-74  
INDIANA MICHIGAN POWER COMPANY  
DONALD C. COOK NUCLEAR PLANT, UNITS 1 AND 2  
DOCKET NOS. 50-315 AND 50-316

## 1.0 INTRODUCTION

By application dated September 12, 2005, the Indiana Michigan Power Company (I&M; the licensee) requested amendments to the Technical Specifications (TSs) for the Donald C. Cook Nuclear Plant, Units 1 and 2. The proposed amendments would replace the requirements of Improved TSs (ITs) Surveillance Requirement (SR) 3.8.1.18 with the wording of previous TSs SR 4.8.1.1.2.e.11, with minor editorial changes.

## 2.0 BACKGROUND

By letter dated April 6, 2004 (Accession No. ML041200298), the licensee submitted an application for the conversion of the Cook Nuclear Plant (CNP) Units 1 and 2 TSs to the ITs. The ITs are based on NUREG-1431, "Standard Technical Specifications, Westinghouse Plants," dated April 30, 2001; the Commission's Final Policy Statement, "NRC Final Policy Statement on Technical Specification Improvements for Nuclear Power Reactors," published on July 22, 1993 (58 FR 39132); and 10 CFR 50.36, "Technical specifications." The purpose of the conversion is to provide clearer and more readily understandable requirements in the TSs for the CNP units, to ensure safer operation of the units. By letter date June 1, 2005 (Accession No. ML050620034), the Nuclear Regulatory Commission (NRC) issued the license amendment which approved the conversion of the TSs.

During preparations for implementing the ITS, I&M discovered an unforeseen error. The error involved the conversion of SR 4.8.1.1.2.e.11 to ITS SR 3.8.1.18. However, the times to be measured and the associated acceptance criterion of ITS SR 3.8.1.18 are not the same as those in the previous SR 4.8.1.1.2.e.11. ITS SR 3.8.1.18 addresses time intervals between starting of sequenced loads, whereas previous SR 4.8.1.1.2.e.11 addresses acceptable times for the starting of each individual sequenced load. (The previous SR, were approved by NRC staff on December 23, 1977, for Unit 2, and subsequently on January 4, 1978, for Unit 1). As a result, both CNP Unit 1 and Unit 2 ITS Pages 3.8.1-14, require a change to correctly reflect the design basis. Because of the current overall accuracy of the load sequencing relays, an analysis of the predicted performance intervals between each individual load sequencing relay setting indicates that the current installed relays cannot meet the ITS 3.8.1.18 requirements. In addition, a review performed by I&M was unsuccessful in identifying a time delay relay capable

of meeting the ITS 3.8.1.18 requirements. Therefore, I&M has determined that the solution to this issue will require a change to replace ITS SR 3.8.1.18 with the wording of the previous SR 4.8.1.1.2.e.11, with minor editorial changes, consistent with the design basis. The proposed amendment would replace the ITS SR 3.8.1.18 with the wording of previous SR 4.8.1.1.2.e.11, with minor editorial changes.

### 3.0 REGULATORY EVALUATION

Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.36(c)(3), "Surveillance Requirements" stipulates that surveillances be performed to assure the necessary quality of systems and components be maintained, the facility operations will be within safety limits, and that the limiting condition for operations will be met. The previous SR 4.8.1.1.2.e.11 requirements ensure that the EDG load sequencing relays are OPERABLE by ensuring that the relays are capable of performing their required safety functions. The EDGs are provided with acceptable protection from overloading during starting of the sequenced loads, and the sequenced loads are started within the times assumed in the accident analyses and are provided with sufficient power to ensure performance capability is also within the assumptions of the accident analyses. In addition, replacing the requirements of ITS SR 3.8.1.18 with the requirements of the previous SR 4.8.1.1.2.e.11, does not create a conflict with other ITS regulatory requirements. The requirements of the previous SR 4.8.1.1.2.e.11 are acceptable for establishing operability of the load sequencing relays in compliance with 10 CFR 50.36(c)(3).

### 4.0 TECHNICAL EVALUATION

The proposed TS change replaces an ITS SR for the EDG load sequencing relays with the requirements of the previous SR, consistent with the design basis. The function of the EDG load sequencing relays is not needed unless an accident and a loss of offsite power occurs. The EDG load sequencing relays do not affect any accident initiators or precursors. Replacing the ITS SR methodology and acceptance criterion with that of the previous SR does not affect the EDG load sequencing relays interaction with any system whose failure or malfunction can initiate an accident. The previous SR 4.8.1.1.2.e.11 ensure that the load sequencing relays are OPERABLE and capable of performing their design functions.

In addition to adequately determining the capability of the load sequencing relays to perform their design functions, replacing the requirements of ITS SR 3.8.1.18 with previous SR 4.8.1.1.2.e.11 does not create a conflict with other ITS technical requirements.

The proposed amendment will not involve a reduction in the margin of safety. The margins of safety applicable to the proposed change are those associated with the accuracy of the EDG load sequencing relays in support of the EDGs and the Engineered Safety Features mitigating safety functions. The proposed change to replace the ITS SR methodology and acceptance criterion with that of the previous SR is in compliance with the design basis of D.C. Cook, Units 1 and 2 and will ensure the operability of the load sequencing relays. Therefore, the proposed change does not involve a significant reduction in margin of safety. Because the previous SR 4.8.1.1.2.e.11 was acceptable for ensuring that the load sequencing relays are capable of performing their design functions, and do not create a conflict with other ITS technical requirements, revising ITS SR 3.8.1.18 to apply the methodology and acceptance criterion of previous SR 4.8.1.1.2.e.11 is acceptable from a technical perspective.

Based on the above, the NRC staff finds revising the requirements of ITS SR 3.8.1.18 to apply the methodology and acceptance criterion of the previous SR 4.8.1.1.2.e.11 is acceptable. Therefore, the NRC staff finds the proposed TS change acceptable.

## 5.0 EXIGENT CIRCUMSTANCES

The Commission's regulations at 10 CFR 50.91 contain provisions for issuance of amendments where the Commission finds that exigent circumstances exist, in that a licensee and the Commission must act quickly and that time does not permit the Commission to publish a *Federal Register* notice allowing 30 days for prior public comment before issuance of an amendment. The exigency exists in this case in that the proposed amendment is needed because ITS implementation is scheduled to occur on September 25, 2005, and without this change being approved the implementation date would be required to be extended. As described in the application, implementation of the ITS requires significant advance planning and coordination between various departments, and involves verifications performed by each department that all preparations and conditions have been met with consideration for the planned ITS implementation date. The time before the implementation of the ITS does not permit the Commission to publish a notice allowing 30 days for prior public comment.

In its application, the licensee explained why it could not have foreseen the need for this amendment. During preparations for implementing the ITS, I&M discovered an unforeseen error. The error involved the conversion of the previous approved SR 4.8.1.1.2.e.11 to ITS SR 3.8.1.18. The proposed TS change is being requested on an exigent basis because I&M could not have avoided the exigency due to the short duration between when the problem was discovered and the date when the ITS is scheduled to be implemented. Implementation of the ITS at CNP is currently scheduled for September 25, 2005. The reasons for selecting this implementation date include minimizing risk to the facility of a plant transient or upset during changing of setpoints for the applicable Reactor Trip System (RTS) and Engineered Safety Features Actuation System (ESFAS) instrumentation channels to support new more restrictive allowable values in the ITS, and minimizing the possibility of human error in implementing other aspects of the ITS. This implementation date is the beginning of the one week in each 13-week planning cycle, called the "null" week, where no work is typically planned on safety-related systems and components, including significant surveillance testing or preventive maintenance. Delaying implementation to any other week would involve significant revisions to the current plans for the next 13-week planning cycle, without the normal advance planning time typically allowed, which could lead to increased possibility of human error resulting in missed surveillance tests and other important preventive maintenance activities. In addition, the implementation date was selected to coincide with the licensed operator requalification training cycle, and to allow for implementing the required changes to the plant training simulator in support of that training to reflect the revised RTS and ESFAS setpoints. Delaying implementation would increase the possibility that a human error could result in inadvertent RTS or ESFAS actuation, and in implementing the licensed operator requalification program which could increase the risk of human error by the licensed operators.

Accordingly, the Commission has determined that exigent circumstances exist pursuant to 10 CFR 50.91(a)(6), the submittal of information was timely, and the licensee did not create the exigency.

## 6.0 FINAL NO SIGNIFICANT HAZARDS CONSIDERATIONS DETERMINATION

The Commission's regulations in 10 CFR 50.92(c) state that the Commission may make a final determination that a license amendment involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not (1) involve a significant increase in the probability or consequences of an accident previously evaluated, (2) create the possibility of a new or different kind of accident from any accident previously evaluated, or (3) result in a significant reduction in the margin of safety. The NRC staff has made a final determination that no significant hazards consideration is involved for the proposed amendment and that the amendment should be issued as allowed by the criteria contained in 10 CFR 50.91. The NRC staff's final determination is presented below.

1. The change does not involve a significant increase in the probability of occurrence or consequences of an accident previously evaluated.

Operation of CNP, in accordance with the proposed amendments will not involve a significant increase in the probability or consequences of an accident previously evaluated. The proposed change replaces an ITS SR for the EDG load sequencing relays with the requirements of the previous SR, consistent with the design basis. The function of the EDG load sequencing relays is only mitigative and is not needed unless an accident and a loss of offsite power occurs. The EDG load sequencing relays do not affect any accident initiators or precursors. Replacing the ITS SR methodology and acceptance criterion with that of the previous SR does not affect the EDG load sequencing relays interaction with any system whose failure or malfunction can initiate an accident. Therefore, the probability of occurrence of an accident previously evaluated is not significantly increased.

2. The change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

The proposed amendments will not create the possibility of a new or different kind of accident from any previously analyzed. The proposed change replaces an ITS SR for the EDG load sequencing relays with the previous SR, consistent with the design basis. There are no new failure modes for the EDG load sequencing relays created and the EDG load sequencing relays are not an initiator of any new or different kind of accident. The proposed change does not affect the interaction of the EDG load sequencing relays with any system whose failure or malfunction can initiate an accident. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

3. The change does not involve a significant reduction in a margin of safety.

The proposed amendment will not involve a significant reduction in a margin of safety. The margins of safety applicable to the proposed change are those associated with the availability of the EDG load sequencing relays to perform their safety function in support of the EDGs and the Engineered Safety Features mitigating safety functions. The proposed change to replace the more restrictive ITS SR methodology and acceptance criterion with that of the previous SR is in compliance with the design basis and does not impact the margins of safety applicable to any other ITS requirement, and there will be no reduction in the safety margins associated with the capability of the EDG load sequencing relays to perform their safety function. Therefore, the proposed change does not involve a significant reduction in margin of safety.

Following an the review of this application, the requested amendments have been evaluated against the standards in 10 CFR 50.92, and the NRC staff has made a final determination that the requested amendments involve no significant hazards considerations. The changes do not significantly increase the probability or consequences of any accident previously considered, nor create the possibility of an accident of a different kind, nor significantly decrease any margin of safety.

#### 7.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Michigan State official was notified of the proposed issuance of the amendments. The State official had no comments.

#### 8.0 ENVIRONMENTAL CONSIDERATION

These amendments change the requirements with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has made a final finding that the amendments involve no significant hazards consideration. Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

#### 9.0 CONCLUSION

The staff has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: John F. Stang

Date: September 23, 2005