

February 26, 2002

Mr. A. Christopher Bakken III, Senior Vice President
and Chief Nuclear Officer
Indiana Michigan Power Company
Nuclear Generation Group
500 Circle Drive
Buchanan, MI 49107

SUBJECT: DONALD C. COOK NUCLEAR PLANT, UNITS 1 AND 2 - ISSUANCE OF
AMENDMENTS (TAC NOS. MB3339 AND MB3340)

Dear Mr. Bakken:

The U.S. Nuclear Regulatory Commission has issued the enclosed Amendment No. 266 to Facility Operating License No. DPR-58 and Amendment No. 247 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 (TSs) in response to your application dated November 1, 2001.

The amendments would revise TS surveillance requirements 4.8.2.3.2.c.2 and 4.8.2.5.2.c.2 and associated TS bases concerning the safety-related batteries to make them more consistent with the Westinghouse Standard TSs.

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/

John F. Stang, Senior 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. 266 to DPR-58
2. Amendment No. 247 to DPR-74
3. Safety Evaluation

cc w/encls: See next page

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ADAMS ACCESSION NUMBER: ML020310118 *See memo dated January 15, 2002

OFFICE	PM:PD3-1	LA:PD3-1	SC:EEIB*	OGC	(A)SC:PD3-1
NAME	JStang	THarris	CHolden	RWeisman	WReckley
DATE	02/01/2002	02/01/2002	01/15/2002	02/22/2002	02/25/2002

OFFICIAL RECORD COPY

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. 266
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 November 1, 2001, 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. 266, 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 within 60 days of the date of issuance. Implementation shall include revision to the appropriate licensee - controlled document to include the required battery terminal voltage calculation as identified in the Licensee's application dated November 1, 2001, and reviewed in the NRC staff's safety evaluation report dated February 26, 2002.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

William D. Reckley, Acting 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: February 26, 2002

ATTACHMENT TO LICENSE AMENDMENT NO. 266

TO FACILITY OPERATING LICENSE NO. DPR-58

DOCKET NO. 50-315

Replace the following pages of the Appendix A Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

REMOVE

INSERT

3/4 8-13

3/4 8-13

3/4 8-14

3/4 8-14

3/4 8-17

3/4 8-17

3/4 8-18

3/4 8-18

B 3/4 8-2

B 3/4 8-2

INDIANA MICHIGAN POWER COMPANY

DOCKET NO. 50-316

DONALD C. COOK NUCLEAR PLANT, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 247
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 November 1, 2001, 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. 247, 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 within 60 days of the date of issuance. Implementation shall include revision to the appropriate licensee - controlled document to include the required battery terminal voltage calculation as identified in the Licensee's application dated November 1, 2001, and reviewed in the NRC staff's safety evaluation report dated February 26, 2002.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

William D. Reckley, Acting 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: February 26, 2002

ATTACHMENT TO LICENSE AMENDMENT NO. 247

FACILITY OPERATING LICENSE NO. DPR-74

DOCKET NO. 50-316

Replace the following pages of the Appendix A Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

REMOVE

INSERT

3/4 8-13

3/4 8-13

3/4 8-14

3/4 8-14

3/4 8-17

3/4 8-17

3/4 8-18

3/4 8-18

B 3/4 8-1

B 3/4 8-1

B 3/4 8-2

B 3/4 8-2

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 266 TO FACILITY OPERATING LICENSE NO. DPR-58
AND AMENDMENT NO. 247 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 November 1, 2001, the Indiana Michigan Power Company (I&M) (the licensee) requested amendments to the Technical Specifications (TSs) for the Donald C. Cook (D. C. Cook) Nuclear Plant, Units 1 and 2. The proposed amendments would revise TS 3.8.2.3, "DC Distribution - Operating," and TS 3.8.2.5, "DC Distribution - Operating - Train N Battery System," as described below.

The proposed amendment would:

Change 1: Revise TS surveillance requirements (SR) 4.8.2.3.2.c.2 and 4.8.2.5.2.c.2 to add a requirement to remove visible corrosion and to delete the requirement that the cell-to-cell and terminal connections on the 250-volt DC batteries be free of corrosion.

Revise the TS 3/4.8 bases to clarify that the presence of visible corrosion during the performance of SRs 4.8.2.3.2.c.2 and 4.8.2.5.2.c.2 does not constitute a failure of these SRs providing the corrosion is removed.

Change 2: Revise SR 4.8.2.3.2.c.3 to increase the required Train-AB and Train-CD battery charger current during surveillance testing.

Revise SR 4.8.2.5.2.c.3 to increase the required Train-N battery charger current during surveillance testing.

Change 3: Revise SR 4.8.2.3.2.d to delete the requirement that the battery terminal voltage be maintained greater than or equal to 210 volts during the battery service test, and to delete the description of the composite load profile.

Revise SRs 4.8.2.3.2.d and 4.8.2.5.2.d to delete the references to Table 4.8-2, "Battery Emergency Loads," and Table 4.8-3, "Battery Emergency Loads," respectively, and to delete Table 4.8-2 and Table 4.8-3. The pages on which the tables are located, 3/4 8-14 and 3/4 8-18, will be revised to state "This page intentionally left blank."

Change 4: Revise SR 4.8.2.5.2.d to delete the requirement that the battery terminal voltage be maintained greater than or equal to 210 volts during the battery service test, and to add the term "design duty cycle" as a substitute for the deleted reference to Table 4.8-3. This is proposed for consistency with SR 4.8.2.3.2.d.

The proposed amendments would also make the following editorial revision:

Change 5: Revise SRs 4.8.2.3.2.c and 4.8.2.5.2.c to move the term "verifying that" to SRs 4.8.2.3.2.c.1, 4.8.2.3.2.c.2, 4.8.2.3.2.c.3, 4.8.2.5.2.c.1, 4.8.2.5.2.c.2 and 4.8.2.5.2.c.3.

The licensee states that it is submitting the proposed amendments to revise SRs 4.8.2.3.2.c.2 and 4.8.2.5.2.c.2 to eliminate the burden of entering the TS action statement due to not meeting an SR when corrosion is observed on the battery, as the presence of corrosion does not necessarily impact battery performance. This request also addresses a licensee commitment to revise SR 4.8.2.3.2.c.2 to update the battery maintenance requirements to those of the industry. In conjunction with this request, the licensee states that it will follow the guidance in Institute of Electrical and Electronics Engineers Standard 450-1995, paragraphs 4.4.1.b and 4.4.1.c, to remove visible corrosion and to perform a connection resistance check. All other battery maintenance activities will be in accordance with the D. C. Cook licensing basis.

The licensee is also submitting the proposed amendments to revise SR 4.8.2.3.2.c.3 in accordance with Nuclear Regulatory Commission Administrative Letter 98-10, "Dispositioning of Technical Specifications that are Insufficient to Assure Plant Safety," because the current requirements for the safety related batteries are non-conservative. The licensee has determined that the value in the current TS is not adequate for the present battery system design. The licensee has implemented administrative controls to assure that proper design and licensing basis battery voltage and current is maintained.

2.0 BACKGROUND

The D. C. Cook direct current (dc) system for each unit consists of two separately located 250 V dc batteries. Each battery has its own charger and a wired standby charger.

The station battery systems are designated as AB and CD systems providing supply power for operation of the turbine generator emergency auxiliaries, switchgear, annunciators, vital bus, inverters, motor operated valves and emergency lighting.

In addition, a 250 volt dc N train battery supplies independent power for the operation of the turbine driven auxiliary water system and the anticipated transient without scram mitigation system actuation circuitry inverter. The N battery is physically and electrically isolated from the other plant batteries.

The current TS requires that when corrosion at cell-to-cell and terminal connections is discovered an action statement be entered. The licensee stated that this is overly restrictive, and proposes a revision of the TS by deleting the requirement and maintaining it in owner-controlled documents and implementing procedures to remove the visible corrosion.

The licensee proposes (a) to increase Train AB, Train CD, and Train N battery charger amps during surveillance testing to the chargers' rated values; (b) delete the requirement that the battery terminal voltage be maintained greater or equal to 210 V during the battery service test, (c) delete the references to Table 4.8-2, "Battery Emergency Loads," AB and CD Battery and Table 4.8-3, "Battery Emergency Loads," "N" Battery Loads respectively and to delete Table 4.8-2 and Table 4.8-3, and (d) make editorial changes.

3.0 EVALUATION

The staff reviewed and evaluated the proposed changes to the TS as follows:

- Change 1. Current SR 4.8.2.3.2.c.2 and 4.8.2.5.2.c.2 require that the battery "cell-to-cell and terminal connections are free of corrosion." The licensee proposes to delete the requirement "free of corrosion" from the TS. This proposal by the licensee is acceptable as the presence of corrosion does not indicate a malfunctioning of the battery. In addition, when visible corrosion is detected, the licensee will implement procedures to remove the corrosion and perform a resistance check to confirm that the battery is capable of performing its intended function. In addition, TS 3/4.8 bases are revised to clarify that the presence of visible corrosion does not constitute a failure of these SRs. The staff does not object to the proposed change to the TS bases.
- Change 2. The licensee proposes to revise SR 4.8.2.3.2.c.3 and TS 4.8.2.5.2.c.3 by increasing the battery chargers' current rating during surveillance testing so the battery chargers will supply currents at least of 300 amperes instead of 140 amperes for Train AB and Train CD, and 25 amperes instead of 10 amperes for Train N. The changes to higher values reflect the rated capacity of each battery charger and not meeting these values is an indication of a malfunctioning of the charger. Therefore, the staff finds the proposed changes are acceptable.
- Change 3. The current SR 4.8.2.3.2.d (performance of battery service test Train AB and Train CD) states:
- "d. At least once per 18 months, perform a battery service test during shutdown (MODES 5 or 6), by verifying that the battery capacity is adequate to supply and maintain in OPERABLE status the actual or simulated emergency loads for the design duty cycle which is based on the composite load profile. The composite load profile envelopes both the LOCA/LOOP and Station Blackout profiles and

provides the basis for the times listed in Table 4.8-2. The battery charger will be disconnected throughout the test. The battery terminal voltage shall be maintained greater than or equal to 210 volts throughout this test.”

The licensee proposes to revise this SR to read:

“d. At least once per 18 months, perform a battery service test during shutdown (MODES 5 or 6), by verifying that the battery capacity is adequate to supply and maintain in OPERABLE status the actual or simulated emergency loads for the design duty cycle. The battery charger will be disconnected throughout the test.”

The licensee proposes to delete the requirement to maintain the battery terminal voltage greater than or equal to 210 volts during the service test and to delete description of the composite load profile. The service test is to determine if the battery is able, as found, to meet the duty cycle of the dc system. The system designer will establish the test procedures and acceptance criteria. At CNP, the licensee calculates the required terminal voltage for each battery and includes that value into the battery test procedure as the acceptance criteria. Accordingly, the staff finds deletion of the requirement to maintain the terminal voltage greater than or equal to 210 V is acceptable.

The deletion of Table 4.8-2 and Table 4.8-3 and references to these tables will reduce the administrative burden associated with the load profiles and the list of battery loads will be maintained in the licensee’s design basis battery calculations which are licensee controlled documents. Modifications to the calculations which result in changes to the load profiles or battery load will be controlled in accordance with 10 CFR 50.59. Therefore the staff finds the deletion is acceptable.

Change 4. The current SR 4.8.2.5.2.d (performance of battery service test, Train N) states:

“d. At least once per 18 months perform a battery service test, during shutdown (MODES 5 or 6), by verifying that the battery capacity is adequate to supply and maintain in OPERABLE status the actual or simulated emergency loads for the times specified of TABLE 4.8-3 with the battery charger disconnected. The battery terminal voltage shall be maintained greater than or equal to 210 volts throughout the battery service test.”

The licensee proposes to revise this SR to read:

“d. At least once per 18 months perform a battery service test, during shutdown (MODES 5 or 6), by verifying that the battery capacity is adequate to supply and maintain in OPERABLE status the actual or simulated emergency loads for the design duty cycle with the battery charger disconnected.”

The licensee proposal to delete the requirement to maintain the battery terminal voltage greater than or equal to 210 V during the service test is acceptable as evaluated above for change 3. The proposal would also add the term “design duty cycle” as a substitute for the deleted reference to Table 4.8-3 “BATTERY

EMERGENCY LOADS.” The staff finds this change acceptable based on the fact the change is consistent with practices previously approved by the NRC staff when establishing the service test procedures and acceptance criteria.

- Change 5. The licensee proposes to make editorial changes to SR 4.8.2.3.2.c and 4.8.2.5.3.2.c to move the term “verifying that” to SR 4.8.2.3.2.c.1, 4.8.2.3.2.c.2, 4.8.2.3.2.c.3, 4.8.2.5.2.c.1, 4.8.2.5.2.c.2 and 4.8.2.5.2.c.3. Also, the pages 3/4 8-14 and 3/4 8-18 will be revised by deleting Table 4.8-2 and Table 4.8-3 respectively. The pages are revised to state “This page intentionally left blank”. These editorials are necessary for consistency with SR 4.8.2.3.2.d and SR 4.8.2.5.2.d and are acceptable.

4.0 SUMMARY

Based on the above, the staff concluded that the licensee’s request for amendment to the TSS associated with the dc electrical power is acceptable, as the surveillance will be sufficient to assure that the dc systems will be able to perform their safety functions.

5.0 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.

6.0 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 or change the surveillance requirements. 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 previously issued a proposed finding that the amendments involve no significant hazards consideration and there has been no public comment on such finding (66 FR 64296). 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.

7.0 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: S. Saba

Date: February 26, 2002