

Docket No. 50-316

July 20, 1978

Indiana & Michigan Electric Company  
Indiana & Michigan Power Company  
ATTN: Mr. John Tillinghast  
Vice President  
P. O. Box 18  
Bowling Green Station  
New York, New York 10004

Gentlemen:

The Commission has issued the enclosed Amendment No. 7 to Facility Operating License No. DPR-74 for the Donald C. Cook Nuclear Plant Unit No. 2. The amendment consists of changes to the Technical Specifications and constitutes our interim response to your request dated January 13, 1978, as supplemented by letters dated February 3, 1978 and April 27, 1978.

The staff has not completed its detailed review of your request for a change to Technical Specification 3.6.1.7 governing operation of the containment ventilation system. However, we have performed a preliminary review and, on a one-time only basis have removed the requirement that the containment purge supply and exhaust isolation valves be closed during operational Mode 4 (Hot Shutdown) for the duration of the upcoming maintenance outage to begin on or about July 19, 1978. This limited use of the containment ventilation system is reflected in the enclosed license Amendment. When the staff has completed its review of the results of your isolation valve operability tests, we will consider your request of January 13, 1978, as supplemented, for a change to Technical Specification 3.6.1.7 which would allow use of the containment ventilation system as frequently as required.

Const. 1  
GP

OFFICE						
SURNAME						
DATE						

Indiana & Michigan Electric Company - 2 -  
Indiana & Michigan Power Company

July 20, 1978

In addition, consistent with the Commission's recent amendment of 10 CFR 73.55 which extended the date for full implementation of physical protection requirements for nuclear power facilities, Amendment No. deletes Condition 2.D of Facility Operating License No. DPR-74. Full implementation of physical protection requirements will be accomplished consistent with the provisions of the revised regulation.

Sincerely,

Original signed by

A. Schwencer, Chief  
Operating Reactors Branch #1  
Division of Operating Reactors

Enclosures:

1. Amendment No. 7 to DPR-74
2. Safety Evaluation
3. Notice of Issuance

cc w/enclosures:

See next page

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

July 20, 1978

Docket No. 50-316

Indiana & Michigan Electric Company  
Indiana & Michigan Power Company  
ATTN: Mr. John Tillinghast  
Vice President  
P. O. Box 18  
Bowling Green Station  
New York, New York 10004

Gentlemen:

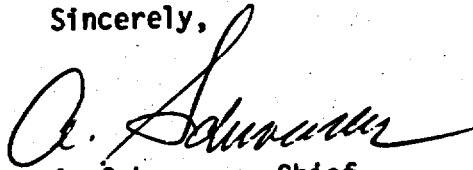
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Indiana & Michigan Electric Company - 2 - July 20, 1978  
Indiana & Michigan Power Company

In addition, consistent with the Commission's recent amendment of 10 CFR 73.55 which extended the date for full implementation of physical protection requirements for nuclear power facilities, Amendment No. 7 deletes Condition 2.D of Facility Operating License No. DPR-74. Full implementation of physical protection requirements will be accomplished consistent with the provisions of the revised regulation.

Sincerely,



A. Schwencer, Chief  
Operating Reactors Branch #1  
Division of Operating Reactors

Enclosures:

1. Amendment No. 7 to DPR-74
2. Safety Evaluation
3. Notice of Issuance

cc w/enclosures:  
See next page

Indian & Michigan Electric Company - 3 - July 20, 1978  
Indian & Michigan Power Company

cc: Mr. Robert W. Jurgensen  
Chief Nuclear Engineer  
American Electric Power  
Service Corporation  
2 Broadway  
New York, New York 10004

U.S. Environmental Protection Agency  
Federal Activities Branch  
Region V Office  
ATTN: EIS COORDINATOR  
230 South Dearborn Street  
Chicago, Illinois 60604

Gerald Charnoff, Esquire  
Shaw, Pittman, Potts & Trowbridge  
1800 M Street, NW  
Washington, D.C. 20036

David Dinsmore Comey  
Executive Director  
Citizens for a Better Environment  
59 East Van Buren Street  
Chicago, Illinois 60605

Maude Reston Palenske Memorial  
Library  
500 Market Street  
St. Joseph, Michigan 49085

Donald C. Cook Nuclear Plant  
ATTN: Mr. D. Shaller  
Plant Manager  
P. O. Box 458  
Bridgman, Michigan 49106

Mr. Wade Schuler, Supervisor  
Lake Township  
Baroda, Michigan 49101

Mr. William R. Rustem (2)  
Office of the Governor  
Room 1 - Capitol Building  
Lansing, Michigan 48913

Honorable James Bemenek, Mayor  
City of Bridgman, Michigan 49106

Chief, Energy Systems  
Analyses Branch (AW-459)  
Office of Radiation Programs  
U.S. Environmental Protection Agency  
Room 645, East Tower  
401 M Street, SW  
Washington, D.C. 20460



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

INDIANA & MICHIGAN ELECTRIC COMPANY

INDIANA & MICHIGAN POWER COMPANY

DOCKET NO. 50-316

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 7  
License No. DPR-74

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Indiana & Michigan Electric Company and Indiana & Michigan Power Company (the licensees) dated January 13, 1978, as supplemented by letters dated February 3, 1978 and April 27, 1978, 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 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. 7, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. Condition 2.D of Facility Operating License No. DPR-74 is deleted.
4. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



A. Schwencer, Chief  
Operating Reactors Branch #1  
Division of Operating Reactors

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: July 20, 1978

ATTACHMENT TO LICENSE AMENDMENT NO.7

FACILITY OPERATING LICENSE NO. DPR-74

DOCKET NO. 50-316

Replace page of 3/4 6-9a of the Appendix "A" Technical Specifications with the enclosed page. The revised page is identified by Amendment number and contains vertical lines indicating the areas of change. The corresponding overleaf page (3/4 6-10) is also provided to maintain document completeness.



## CONTAINMENT SYSTEMS

### CONTAINMENT VENTILATION SYSTEM

#### LIMITING CONDITION FOR OPERATION

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3.6.1.7 The containment purge supply and exhaust isolation valves shall be closed.

APPLICABILITY: MODES 1, 2, 3, and 4\*

ACTION:

With one containment purge supply and/or one exhaust isolation valve open, close the open valve(s) within one hour or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

#### SURVEILLANCE REQUIREMENTS

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4.6.1.7 The containment purge supply and exhaust isolation valves shall be determined closed at least once per 31 days.

\*The requirements of this Specification are waived, on a one time basis, to allow purging of the Containment after the reactor is shutdown for the maintenance outage to begin on about July 20, 1978.

## CONTAINMENT SYSTEMS

### 3/4.6.2 DEPRESSURIZATION AND COOLING SYSTEMS

#### CONTAINMENT SPRAY SYSTEM

##### LIMITING CONDITION FOR OPERATION

3.6.2.1 Two independent containment spray systems shall be OPERABLE with each spray system capable of taking suction from the RWST and transferring suction to the containment sump.

APPLICABILITY: MODES 1, 2, 3 and 4.

##### ACTION:

With one containment spray system inoperable, restore the inoperable spray system to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours; restore the inoperable spray system to OPERABLE status within the next 48 hours or be in COLD SHUTDOWN within the following 30 hours.

##### SURVEILLANCE REQUIREMENTS

4.6.2.1 Each containment spray system shall be demonstrated OPERABLE:

- a. At least once per 31 days by verifying that each valve (manual, power operated or automatic) in the flow path that is not locked sealed, or otherwise secured in position, is in its correct position.
- b. By verifying, that on recirculation flow, each pump develops a discharge pressure of  $\geq 255$  psig at a flow of  $\geq 700$  gpm, when tested pursuant to Specification 4.0.5.
- c. At least once per 18 months during shutdown, by:
  1. Verifying that each automatic valve in the flow path actuates to its correct position on a Containment Pressure--High-High test signal.
  2. Verifying that each spray pump starts automatically on a Containment Pressure--High-High test signal.
- d. At least once per 5 years by performing an air or smoke flow test through each spray header and verifying each spray nozzle is unobstructed.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 7 TO LICENSE NO. DPR-74

INDIANA AND MICHIGAN ELECTRIC COMPANY

INDIANA AND MICHIGAN POWER COMPANY

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2

DOCKET NO. 50-316

Introduction

By application dated January 13, 1978, supplemented by letters dated February 3, 1978 and April 27, 1978, Indiana and Michigan Power Company and Indiana and Michigan Electric Company (the licensees) have requested an amendment to Facility Operating License No. DPR-74 for D.C. Cook Unit 2. The requested amendment would modify the facility Technical Specifications to allow operation of the containment ventilation system as frequently as required. The Technical Specifications currently prohibit operation of the containment ventilation system while the facility is operating in Modes 1, 2, 3, or 4. The staff's detailed review of the licensees' request and supporting documentation is incomplete; consequently this safety evaluation will address the licensees' request of July 13, 1978 for a waiver of current Technical Specification requirements for a limited period of time.

In addition, the Commission has extended the date for full implementation of the physical protection requirements of 10 CFR 73.55 from August 24, 1978 until February 23, 1979. Condition 2.D of Facility Operating License No. DPR-74 has been deleted to reflect this revision. Full implementation of all physical protection requirements will be accomplished in accordance with the provisions of the revised regulation.

Discussion and Evaluation

Containment and Ventilation System

On February 15, 1978, the staff completed its review of the licensees' submittals of January 13, 1978 and February 3, 1978, which described tests to demonstrate the operability (i.e., ability to close under accident flow and pressure conditions) of the containment ventilation system isolation valves. We concluded that the test performed at a containment pressure of about 8.75 psig was sufficient to demonstrate the operability of the isolation valves in the upper compartment purge and vent lines, but that the test pressure was not as great as the maximum expected pressures in the containment lower compartments.

We suggested to the licensees a change to Technical Specification 3/4.6.1.7 which would permit the use of the lower compartment purge systems only during the operating modes of cold shutdown (Mode 5) and refueling (Mode 6).

Since then the licensees have submitted further information which they believe demonstrates that operability of the lower compartment purge system containment isolation valves can be shown on the basis of the test already performed. The licensees have performed analyses which show that, although lower compartment pressures might be higher than the test pressure, the pressures expected at the inboard containment isolation valves in the lower compartment purge and vent lines would be less than the pressure which existed at the inboard containment isolation valve during the test of the upper compartment purge line. This condition is achieved by designing the debris screens for the lower compartment purge systems to provide a high flow resistance. We have not completed our review of these analyses which the licensees submitted by letter dated April 27, 1978.

The licensees are currently entering a reactor shutdown period to perform maintenance tasks in the containment lower compartment; and they have requested a temporary waiver to Technical Specification 3/4.6.1.7 regarding the use of the lower compartment purge systems. To minimize the shutdown period the licensees have requested that they be permitted to use the lower compartment purge systems in the hot shutdown condition. The licensees have committed to reduce the reactor coolant system average temperature and pressure to 250°F and 450 psig, respectively, prior to initiating and during the operation of a lower compartment purge system and to maintain these conditions (or lower) for the duration of the purge.

We have reviewed these commitments and find them to be acceptable. Even though the probability of a loss of coolant accident has been significantly reduced, we have performed calculations to assess the effect of a double ended rupture of a reactor coolant system pipe at these reduced reactor coolant system conditions. Our calculations indicate that lower compartment pressures would not exceed the test pressure (about 8.75 psig) for an assumed double ended rupture in the lower compartment. We therefore believe that the lower compartment purge systems may be operated with the plant at the above specified hot shutdown conditions without a potential detrimental effect upon the health and safety of the public and have therefore granted a temporary waiver to the Technical Specification 3/4.B.6.1.7, while we complete our review of the licensee's analysis of the lower compartment purge systems pressure distribution for assumed accidents at full power conditions.

Date: July 20, 1978

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-316

INDIANA & MICHIGAN ELECTRIC COMPANY

INDIANA & MICHIGAN POWER COMPANY

NOTICE OF ISSUANCE OF AMENDMENT TO FACILITY  
OPERATING LICENSE

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 7 to Facility Operating License No. DPR-74, issued to Indiana & Michigan Electric Company and Indiana & Michigan Power Company (the licensees), which revised the Technical Specifications for operation of the Donald C. Cook Nuclear Plant Unit No. 2 (the facility), located in Berrien County, Michigan. The amendment is effective as of the date of its issuance.

The amendment waives the requirements of the Technical Specification governing the operation of the containment ventilation system for the duration of a maintenance outage scheduled to commence on about July 20, 1978. In addition, this license amendment reflects the Commission's recent amendment of 10 CFR 73.55; full implementation of the physical protection provisions of 10 CFR 73.55 will be accomplished in accordance with the revised regulation.

The application for the amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment. Prior

public notice of this amendment was not required since the amendment does not involve a significant hazards consideration.

The Commission has determined that the issuance of this amendment will not result in any significant environmental impact and that pursuant to 10 CFR §51.5(d)(4) an environmental impact statement, negative declaration or environmental impact appraisal need not be prepared in connection with issuance of this amendment.

For further details with respect to this action, see (1) the January 13, 1978 application for amendment as supplemented by letters dated February 3, 1978 and April 27, 1978 (2) Amendment No. 7 to Facility Operating License No. DPR-74 and (3) the Commission's related Safety Evaluation. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, NW, Washington, DC, and at the Maude Reston Palenske Memorial Library, 500 Market Street, St. Joseph, Michigan 49085. A single copy of items (2) and (3) may be obtained upon request addressed to the U.S. Nuclear Regulatory Commission, Washington, DC 20555, Attention: Director, Division of Operating Reactors.

Dated at Bethesda, Maryland, this 20th day of July 1978.

FOR THE NUCLEAR REGULATORY COMMISSION



A. Schwencer, Chief  
Operating Reactors Branch #1  
Division of Operating Reactors