

March 11, 1996

Mr. E. E. Fitzpatrick, Vice President  
Indiana Michigan Power Company  
c/o American Electric Power Service Corporation  
1 Riverside Plaza  
Columbus, OH 43215

SUBJECT: DONALD C. COOK NUCLEAR PLANT, UNIT NOS. 1 AND 2 - ISSUANCE OF  
AMENDMENTS RE: FIRE PROTECTION AND DETECTION SYSTEMS  
(TAC NOS. M93050 AND M93051)

Dear Mr. Fitzpatrick:

The Commission has issued the enclosed Amendment No. 208 to Facility Operating License No. DPR-58 and Amendment No. 192 to Facility Operating License No. DPR-74 for the Donald C. Cook Nuclear Plant, Unit Nos. 1 and 2. The amendments consist of changes to the Technical Specifications (TS) in response to your application dated June 20, 1995, and supplemented December 19, 1995.

The amendments revise TS Section 3/4.3.3.7 (Fire Detection - Instrumentation), TS Section 3/4.7.9 (Fire Suppression Systems), TS Section 3/4.7.10 (Fire Rated Assemblies), TS Section 6.2 (Administrative Controls - Organization), TS Section 6.8 (Administrative Controls - Procedures and Programs) and associated Bases to relocate the fire protection program elements from the TS and incorporate, by reference, the NRC-approved Fire Protection Program and major commitments, including the fire hazards analysis, into the Updated Final Safety Analysis Report. In addition, the amendments revise the Operating Licenses to include the NRC's standard fire protection license condition. These changes are made in accordance with the guidance provided in Generic Letter (GL) 86-10, "Implementation of Fire Protection Requirements," and GL 88-12, "Removal of Fire Protection Requirements from Technical Specifications."

A copy of our related Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

Original Signed By:

John B. Hickman, Project Manager  
Project Directorate III-1  
Division of Reactor Projects - III/IV  
Office of Nuclear Reactor Regulation

Docket Nos. 50-315 and 50-316

- Enclosures: 1. Amendment No. 208 to DPR-58  
2. Amendment No. 192 to DPR-74  
3. Safety Evaluation

cc w/encl: See next page

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DATE	1/4/96		1/4/96	Comments 1/14/96	2/27/96	2/29/96

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

March 11, 1996

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Indiana Michigan Power Company  
c/o American Electric Power Service Corporation  
1 Riverside Plaza  
Columbus, OH 43215

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A copy of our related Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

A handwritten signature in black ink, appearing to read "John B. Hickman", is written over the typed name.

John B. Hickman, Project Manager  
Project Directorate III-1  
Division of Reactor Projects - III/IV  
Office of Nuclear Reactor Regulation

Docket Nos. 50-315 and 50-316

Enclosures: 1. Amendment No. 208 to DPR-58  
2. Amendment No. 192 to DPR-74  
3. Safety Evaluation

cc w/encl: See next page

Mr. E. E. Fitzpatrick  
Indiana Michigan Power Company

Donald C. Cook Nuclear Plant

cc:

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DATED: March 11, 1996

AMENDMENT NO. 208 TO FACILITY OPERATING LICENSE NO. DPR-58-D. C. COOK-UNIT 1  
AMENDMENT NO. 192 TO FACILITY OPERATING LICENSE NO. DPR-74-D. C. COOK-UNIT 2

Docket File  
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ACRS  
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cc: Plant Service list

200100



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

INDIANA MICHIGAN POWER COMPANY

DOCKET NO. 50-315

DONALD C. COOK NUCLEAR PLANT, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 208  
License No. DPR-58

1. The Nuclear Regulatory Commission (the Commission) has found that:

- A. The application for amendment by Indiana Michigan Power Company (the licensee) dated June 20, 1995, and supplemented December 19, 1995, 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.

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2. Accordingly, the following sections under paragraph 2.C of Facility Operating License No. DPR-58 are hereby amended to read as follows:

2.C.(2) Technical Specifications

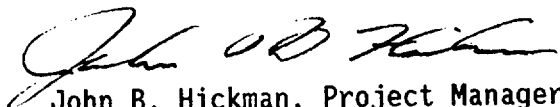
The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 208, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

- 2.C.(4) Indiana Michigan Power Company shall implement and maintain, in effect, all provisions of the approved Fire Protection Program as described in the Updated Final Safety Analysis Report for the facility and as approved in the SERs dated December 12, 1977, July 31, 1979, January 30, 1981, February 7, 1983, November 22, 1983, December 23, 1983, March 16, 1984, August 27, 1985, June 30, 1986, January 28, 1987, May 26, 1987, June 16, 1988, June 17, 1988, June 7, 1989, February 1, 1990, February 9, 1990, March 26, 1990, April 26, 1990, March 31, 1993, April 8, 1993, December 14, 1994, January 24, 1995, April 19, 1995, June 8, 1995, and March 11, 1996, subject to the following provision:

The licensee may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

3. This license amendment is effective as of the date of issuance, with full implementation within 180 days.

FOR THE NUCLEAR REGULATORY COMMISSION



John B. Hickman, Project Manager  
Project Directorate III-1  
Division of Reactor Projects - III/IV  
Office of Nuclear Reactor Regulation

Attachments: Page 3 of License No. DPR-58\*  
Changes to the Technical  
Specifications

Date of Issuance: March 11, 1996

\*Page 3 is attached, for convenience, for the composite license to reflect these changes.

ATTACHMENT TO LICENSE AMENDMENT NO. 208  
TO FACILITY OPERATING LICENSE NO. DPR-58  
DOCKET NO. 50-315  
UNIT 1 LICENSE

REMOVE

Page 3

INSERT

Page 3

TECHNICAL SPECIFICATIONS

Revise Appendix A Technical Specifications by removing the pages identified below and inserting the attached pages. The revised pages are identified by amendment number and contain vertical lines indicating the area of change.

REMOVE

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IX  
XIII  
3/4 3-51  
3/4 3-52  
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3/4 3-53a  
3/4 7-33  
3/4 7-34  
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B 3/4 3-6  
B 3/4 7-6  
B 3/4 7-7  
B 3/4 7-8  
B 3/4 7-9  
6-2  
6-13

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- C. This amended license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR Chapter I: Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Sections 50.54 and 50.59 of Part 50, and Section 70.32 of Part 70; is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

The licensees are authorized to operate the Donald C. Cook Nuclear Plant, Unit No. 1, at steady state reactor core power levels not to exceed 3250 megawatts (thermal).

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 208, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

(3) Less than Four Loop Operation

The licensees shall not operate the reactor at power levels above P-7 (as defined in Table 3.3-1 of Specification 3.3.1.1 of Appendix A to this license) with less than four reactor coolant loops in operation until (a) safety analyses for less than four loop operation have been submitted, and (b) approval for less than four loop operation at power levels above P-7 has been granted by the Commission by amendment of this license.

- (4) Indiana Michigan Power Company shall implement and maintain, in effect, all provisions of the approved Fire Protection Program as described in the Updated Final Safety Analysis Report for the facility and as approved in the SERs dated December 12, 1977, July 31, 1979, January 30, 1981, February 7, 1983, November 22, 1983, December 23, 1983, March 16, 1984, August 27, 1985, June 30, 1986, January 28, 1987, May 26, 1987, June 16, 1988, June 17, 1988, June 7, 1989, February 1, 1990, February 9, 1990, March 26, 1990, April 26, 1990, March 31, 1993, April 8, 1993, December 14, 1994, January 24, 1995, April 19, 1995, June 8, 1995, and March 11, 1996, subject to the following provision:

The licensee may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.



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3/4 LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS  
3/4.3 INSTRUMENTATION

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TABLE 3.3-10

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3/4 BASES  
3/4.3 INSTRUMENTATION

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3/4.3.3.5 REMOTE SHUTDOWN INSTRUMENTATION

The OPERABILITY of the remote shutdown instrumentation ensures that sufficient capability is available to permit shutdown and maintenance of HOT STANDBY of the facility from locations outside of the control room. This capability is required in the event control room habitability is lost and is consistent with General Design Criteria 19 of 10 CFR 50.

3/4.3.3.5.1 APPENDIX R REMOTE SHUTDOWN INSTRUMENTATION

The OPERABILITY of the Appendix R remote shutdown instrumentation ensures that sufficient instrumentation is available to permit shutdown of the facility to COLD SHUTDOWN conditions at the local shutdown indication (LSI) panel. In the event of a fire, normal power to the LSI panels may be lost. As a result, capability to repair the LSI panels from Unit 2 has been provided. If the alternate power supply is not available, fire watches will be established in those fire areas where loss of normal power to the LSI panels could occur in the event of fire. This will consist of either establishing continuous fire watches or verifying OPERABILITY of fire detectors per Specification 4.3.3.7 and establishing hourly fire watches. The details of how these fire watches are to be implemented are included in a plant procedure.

3/4.3.3.8 POST-ACCIDENT INSTRUMENTATION

The OPERABILITY of the post-accident instrumentation ensures that sufficient information is available on selected plant parameters to monitor and assess these variables during and following an accident.

3/4.7.8 HYDRAULIC SNUBBERS (Continued)

The visual inspection frequency is based upon maintaining a constant level of snubber protection to systems. The method for determining the next interval for the visual inspection of snubbers is provided based upon the number of unacceptable snubbers found during the previous inspection, the category size for each snubber type, and the previous inspection interval per NRC Generic Letter 90-09. A snubber is considered unacceptable if it fails to satisfy the acceptance criteria of the visual inspection. Any inspection whose results required a shorter inspection interval will override the previous schedule.

When the cause of the rejection of a snubber is clearly established and remedied for that snubber and for any other snubbers that may be generically susceptible, and verified by inservice functional testing, that snubber may be exempted from being counted as inoperable. Generically susceptible snubbers are those which are of a specific make or model and have the same design features directly related to rejection of the snubber by visual inspection, or are similarly located or exposed to the same environmental conditions such as temperature, radiation, and vibration.

When a snubber is found inoperable, an engineering evaluation is performed, in addition to the determination of the snubber mode of failure, in order to determine if any safety-related component or system has been adversely affected by the inoperability of the snubber. The engineering evaluation shall determine whether or not the snubber mode of failure has imparted a significant effect or degradation on the supported component or system.

To provide assurance of snubber functional reliability, a representative sample of the installed snubbers will be functionally tested during plant shutdowns at 24 month intervals. Observed failures of these sample snubbers shall require functional testing of additional units.

The service life of a snubber is evaluated via manufacturer's input and information through consideration of the snubber service conditions and associated installation and maintenance records (newly installed snubber, seal replaced, spring replaced, in high radiation area, in high temperature area, etc...). The requirement to monitor the snubber service life is included to ensure that the snubbers periodically undergo a performance evaluation in view of their age and operating conditions. These records will provide statistical bases for future consideration of snubber service life. The requirements for the maintenance of records and the snubber service life review are not intended to affect plant operation.

The number of snubbers to be functionally tested during each surveillance is based on calculations performed to allow extension of the surveillance interval from 18 months to 24 months, and therefore, the number of snubbers functionally tested deviates from the number required by the Westinghouse Standard Technical Specifications (NUREG-0452, Revision 4).

A list of individual snubbers with detailed information of snubber location and size and of system affected shall be available at the plant in accordance with Section 50.71(c) of 10 CFR Part 50. The accessibility of each snubber shall be determined and approved by the Plant Nuclear Safety Review Committee. The determination shall be based upon the existing radiation levels and the expected time to perform a visual inspection in each snubber location as well as other factors associated with accessibility during plant operations (e.g., temperature, atmosphere, location, etc.), and recommendations of Regulatory Guides 8.8 and 8.10. The addition or deletion of any snubber shall be made in accordance with Section 50.59 of 10 CFR Part 50.



## 6.0 ADMINISTRATIVE CONTROLS

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### 6.2.2 (Continued)

- b. At least one licensed Operator shall be in the control room when fuel is in the reactor. In addition, while the unit is in Mode 1, 2, 3, or 4, at least one licensed Senior Operator shall be in the control room.
- c. An individual\* qualified in radiation protection procedures shall be on site when fuel is in the reactor.
- d. All CORE ALTERATIONS shall be directly supervised by a licensed Senior Operator trained or qualified in refueling and CORE ALTERATIONS (SO-CA) who has no other concurrent responsibilities during this operation.
- e. The amount of overtime worked by plant staff members performing safety-related functions must be limited in accordance with NRC Policy Statement on working hours (Generic Letter 82-12).
- f. The Shift Supervisor, Assistant Shift Supervisor, and Unit Supervisor shall hold a Senior Operator License.
- g. The Operations Superintendent must hold or have held a Senior Operator License at Cook Nuclear Plant or a similar reactor and one mid-level Operations Production Supervisor shall hold a current Senior Operator License.

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\* The unexpected absence, for a period of time not to exceed 2 hours, of the on-site individual qualified in radiation protection procedures is permitted provided immediate action is taken to fill the required position.

## 6.0 ADMINISTRATIVE CONTROLS

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### 6.8 PROCEDURES AND PROGRAMS

- 6.8.1 Written procedures shall be established, implemented and maintained covering the activities referenced below:
- a. The applicable procedures recommended in Appendix "A" of Regulatory Guide 1.33, Rev. 2, February 1978.
  - b. Deleted.
  - c. Deleted.
  - d. PROCESS CONTROL PROGRAM implementation.
  - e. OFFSITE DOSE CALCULATION MANUAL implementation.
  - f. Quality Assurance Program for effluent and environmental monitoring using the guidance in Regulatory Guide 1.21, Rev. 1, June 1974, and Regulatory Guide 4.1, Rev. 1, April 1975.
  - g. Component Cyclic or Transient Limits program, which provides controls to track the UFSAR, Section 4.1, cyclic and transient occurrences to ensure that components are maintained with the limits.
  - h. Fire Protection Program implementation.
- 6.8.2 Each procedure and administrative policy of Specification 6.8.1 above, and changes thereto, including temporary changes, shall be reviewed prior to implementation as set forth in Specification 6.5 above.
- 6.8.3 A plant program for post-accident sampling shall be established, implemented, and maintained with will ensure the capability to obtain and analyze reactor coolant samples, containment atmosphere noble gas samples, and unit vent gaseous effluent samples for iodines and particulates under accident conditions. The program will include the following:
- a. Training of personnel,
  - b. Procedures for sampling and analysis,
  - c. Provisions for maintenance of sampling and analysis equipment.



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

INDIANA MICHIGAN POWER COMPANY

DOCKET NO. 50-316

DONALD C. COOK NUCLEAR PLANT, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 192  
License No. DPR-74

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Indiana Michigan Power Company (the licensee) dated June 20, 1995, and supplemented December 19, 1995, 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 following section under paragraph 2.C. of Facility Operating License No. DPR-74 are hereby amended to read as follows:

**2.C.(2) Technical Specifications**

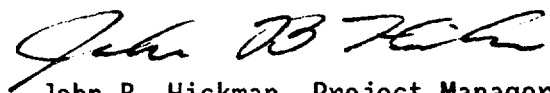
The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 192, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

- 2.C.(3)(o) Indiana Michigan Power Company shall implement and maintain, in effect, all provisions of the approved Fire Protection Program as described in the Updated Final Safety Analysis Report for the facility and as approved in the SERs dated December 12, 1977, July 31, 1979, January 30, 1981, February 7, 1983, November 22, 1983, December 23, 1983, March 16, 1984, August 27, 1985, June 30, 1986, January 28, 1987, May 26, 1987, June 16, 1988, June 17, 1988, June 7, 1989, February 1, 1990, February 9, 1990, March 26, 1990, April 26, 1990, March 31, 1993, April 8, 1993, December 14, 1994, January 24, 1995, April 19, 1995, June 8, 1995, and March 11, 1996, subject to the following provision:

The licensee may make changes to the approved Fire Protection Program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

3. This license amendment is effective as of the date of issuance, with full implementation within 180 days.

FOR THE NUCLEAR REGULATORY COMMISSION



John B. Hickman, Project Manager  
Project Directorate III-1  
Division of Reactor Projects - III/IV  
Office of Nuclear Reactor Regulation

Attachments: Pages 8 and 9 of License No. DPR-74\*  
Changes to the Technical  
Specifications

Date of Issuance: March 11, 1996

\*Pages 8 and 9 are attached, for convenience, for the composite license to reflect these changes.

ATTACHMENT TO LICENSE AMENDMENT NO. 192

FACILITY OPERATING LICENSE NO. DPR-74

DOCKET NO. 50-316

UNIT 2 LICENSE

REMOVE

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TECHNICAL SPECIFICATIONS

Revise Appendix A Technical Specifications by removing the pages identified below and inserting the attached pages. The revised pages are identified by amendment number and contain vertical lines indicating the area of change.

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- (o) Indiana Michigan Power Company shall implement and maintain, in effect, all provisions of the approved Fire Protection Program as described in the Updated Final Safety Analysis Report for the facility and as approved in the SERs dated December 12, 1977, July 31, 1979, January 30, 1981, February 7, 1983, November 22, 1983, December 23, 1983, March 16, 1984, August 27, 1985, June 30, 1986, January 28, 1987, May 26, 1987, June 16, 1988, June 17, 1988, June 7, 1989, February 1, 1990, February 9, 1990, March 26, 1990, April 26, 1990, March 31, 1993, April 8, 1993, December 14, 1994, January 24, 1995, April 19, 1995, June 8, 1995, and March 11, 1996, subject to the following provision:

The licensee may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

- (p) Amd. 64, 6-18-84. Deleted per Amd. 121, 5-17-90.

- (r) Amd. 6, 6-16-78. Deleted per Amd. 68, 4-8-85.

- (s) Spent Fuel Pool Storage

The licensee is authorized to store D. C. Cook, Unit 1 and Unit 2 fuel assemblies, new or irradiated, up to a total of 3613 fuel assemblies in the shared spent fuel pool at the Donald C. Cook Nuclear Plant subject to the following conditions:

Fuel stored in the spent fuel pool shall not have a nominal enrichment greater than 4.95% Uranium-235.

- (t) Amd. 13, 10-16-79. Deleted per Amd. 63, 4-27-84.

- (u) The provisions of Specification 3/4.9.7 are not applicable for loads being moved over the pool for the duration of the spent fuel pool reracking project. Control of loads moving over the spent fuel pool during the spent fuel pool reracking project shall comply with the criteria of NUREG-0612, "Control of Heavy Loads at Nuclear Power Plants." Administrative controls shall be in place to prevent any load not rigged in compliance with the criteria of NUREG-0612 from passing over the spent fuel pool with the crane interlocks, required by T/S 3/4.9.7, disengaged.

(v) Secondary Water Chemistry Monitoring Program

The licensee shall implement a secondary water chemistry monitoring program to inhibit steam generator tube degradation. This program shall be described in the station chemistry manual and shall include:

1. Identification of a sampling schedule for the critical parameters and control points for these parameters;
2. Identification of the procedures used to measure the values of the critical parameters;
3. Identification of process sampling points;
4. Procedure for the recording and management of data;
5. Procedures defining corrective actions for off control point chemistry conditions; and
6. A procedure identifying (a) the authority responsible for the interpretation of the data, and (b) the sequence and timing of administrative events required to initiate corrective actions.

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### **3/4 BASES**

### **3/4.3 INSTRUMENTATION**

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#### **3/4.3.3.6 POST-ACCIDENT INSTRUMENTATION**

The OPERABILITY of the post-accident instrumentation ensures that sufficient information is available on selected plant parameters to monitor and assess these variables during and following an accident.

#### **3/4.3.3.7 Deleted.**

#### **3/4.3.3.9 EXPLOSIVE GAS MONITORING INSTRUMENTATION**

This instrumentation includes provisions for monitoring the concentrations of potentially explosive gas mixtures in the Waste Gas Holdup System. The OPERABILITY and use of this instrumentation is consistent with the requirements of General Design Criteria specified in Section 11.3 of the Final Safety Analysis Report for the Donald C. Cook Nuclear Plant.

**3/4 BASES**  
**3/4.7 PLANT SYSTEMS**

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**3/4.7.7 HYDRAULIC SNUBBERS (Continued)**

included to ensure that the snubbers periodically undergo a performance evaluation in view of their age and operating conditions. These records will provide statistical bases for future consideration of snubber service life. The requirements for the maintenance of records and the snubber service life review are not intended to affect plant operation.

The number of snubbers to be functionally tested during each surveillance is based on calculations performed to allow extension of the surveillance interval from 18 months to 24 months, and therefore, the number of snubbers functionally tested deviates from the number required by the Westinghouse Standard Technical Specifications (NUREG-0452, Revision 4).

A list of individual snubbers with detailed information of snubber location and size and of system affected shall be available at the plant in accordance with Section 50.71(c) of 10 CFR Part 50. The accessibility of each snubber shall be determined and approved by the Plant Nuclear Safety Review Committee. The determination shall be based upon the existing radiation levels and the expected time to perform a visual inspection in each snubber location as well as other factors associated with accessibility during plant operations (e.g., temperature, atmosphere, location, etc.), and the recommendations of Regulatory Guides 8.8 and 8.10. The addition or deletion of any snubber shall be made in accordance with Section 50.59 of 10 CFR Part 50.

**3/4.7.8 SEALED SOURCE CONTAMINATION**

The limitations on removable contamination for sources requiring leak testing, including alpha emitters, is based on 10 CFR 70.39(c) limits for plutonium. This limitation will ensure that leakage from byproduct, source and special nuclear material sources will not exceed allowable intake values.

## **6.0 ADMINISTRATIVE CONTROLS**

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### **6.2 ORGANIZATION (Continued)**

#### **FACILITY STAFF (Continued)**

- b. At least one licensed Operator shall be in the control room when fuel is in the reactor. In addition, while the unit is in Mode 1, 2, 3, or 4, at least one licensed Senior Operator shall be in the control room.
- c. An individual\* qualified in radiation protection procedures shall be on site when fuel is in the reactor.
- d. All CORE ALTERATIONS shall be directly supervised by a licensed Senior Operator trained or qualified in refueling and CORE ALTERATIONS (SO-CA) who has no other concurrent responsibilities during this operation.
- e. The amount of overtime worked by plant staff members performing safety-related functions must be limited in accordance with NRC Policy Statement on working hours (Generic Letter 82-12).
- f. The Shift Supervisor, Assistant Shift Supervisor, and Unit Supervisor shall hold a Senior Operator License.
- g. The Operations Superintendent must hold or have held a Senior Operator License at Cook Nuclear Plant or a similar reactor and one mid-level Operations Production Supervisor shall hold a current Senior Operator License.

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\* The unexpected absence, for a period of time not to exceed 2 hours, of the on-site individual qualified in radiation protection procedures is permitted provided immediate action is taken to fill the required position.



## 6.0 ADMINISTRATIVE CONTROLS

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### 6.8 PROCEDURES AND PROGRAMS

6.8.1 Written procedures shall be established, implemented and maintained covering the activities referenced below:

- a. The applicable procedures recommended in Appendix "A" of Regulatory Guide 1.33, Rev. 2, February 1978.
- b. Deleted.
- c. Deleted.
- d. PROCESS CONTROL PROGRAM implementation.
- e. OFFSITE DOSE CALCULATION MANUAL implementation.
- f. Quality Assurance Program for effluent and environmental monitoring using the guidance in Regulatory Guide 1.21, Rev. 1, June 1974, and Regulatory Guide 4.1, Rev. 1, April 1975.
- g. Component Cyclic or Transient Limits program, which provides controls to track the UFSAR, Section 4.1, cyclic and transient occurrences to ensure that components are maintained with the limits.
- h. Fire Protection Program implementation.

6.8.2 Each procedure and administrative policy of Specification 6.8.1 above, and changes thereto, including temporary changes, shall be reviewed prior to implementation as set forth in Specification 6.5 above.

6.8.3 A plant program for post-accident sampling shall be established, implemented, and maintained with will ensure the capability to obtain and analyze reactor coolant samples, containment atmosphere noble gas samples, and unit vent gaseous effluent samples for iodines and particulates under accident conditions. The program will include the following:

- a. Training of personnel,
- b. Procedures for sampling and analysis,
- c. Provisions for maintenance of sampling and analysis equipment.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 208 TO FACILITY OPERATING LICENSE NO. DPR-58  
AND AMENDMENT NO. 192 TO FACILITY OPERATING LICENSE NO. DPR-74

INDIANA MICHIGAN POWER COMPANY

DONALD C. COOK NUCLEAR PLANT, UNIT NOS. 1 AND 2

DOCKET NOS. 50-315 AND 50-316

1.0 INTRODUCTION

Section 50.48, "Fire protection," of Part 50 of Title 10 of the Code of Federal Regulations (10 CFR Part 50) requires that each operating nuclear power plant have a fire protection plan that satisfies Criterion 3 (GDC 3), "Fire protection," of Appendix A to 10 CFR Part 50. The fire protection plan must describe the overall fire protection program for the facility, outline the plans for fire protection, fire detection, and fire suppression capability, and limitations of fire damage. The program must also describe specific features necessary to implement the program, such as administrative controls and personnel requirements for fire prevention and manual fire suppression activities, automatic and manually operated fire detection and suppression systems, and the means to limit fire damage to structures, systems, or components important to safety so that the capability to safely shut down the plant is ensured. The U.S. Nuclear Regulatory Commission (NRC) staff approved the Donald C. Cook Nuclear Plant, Unit Nos. 1 and 2, (D.C. Cook) fire protection program in a Safety Evaluation Report dated June 4, 1979.

By letter dated June 20, 1995, and supplemented December 19, 1995, the Indiana Michigan Power Company (the licensee) requested ~~amendments~~ to the Technical Specifications (TS) appended to Facility Operating License Nos. DPR-58 and DPR-74 for the Donald C. Cook Nuclear Plant, Unit Nos. 1 and 2. The proposed amendments would change the fire protection program in accordance with the guidance provided in Generic Letter (GL) 86-10, "Implementation of Fire Protection Requirements," and GL 88-12, "Removal of Fire Protection Requirements from Technical Specifications." Specifically, the licensee proposed to incorporate the NRC-approved fire protection program and major commitments, including the fire hazard analysis, into the Updated Final Safety Analysis Report (UFSAR), and to revise the operating licenses to include the NRC's standard fire protection license condition. In addition, the licensee proposed to relocate the fire protection requirements of TS Section 3/4.3.3.7 (Fire Detection - Instrumentation), TS Section 3/4.7.9 (Fire Suppression Systems), TS Section 3/4.7.10 (Fire Rated Assemblies), TS Section 6.2 (Administrative Controls - Organization), and TS Section 6.8 (Administrative Controls - Procedures and Programs) from the TS to the revised fire protection program. The December 19, 1995, supplement clarified the license conditions

by providing specific approval dates for previous fire protection safety evaluations. This information was within the scope of the original application and did not change the staff's initial proposed no significant hazards consideration determination.

GL 86-10 and GL 88-12 referred to removing fire protection requirements from TS. License amendments that relocate the fire protection requirements to the Final Safety Analysis Report (FSAR) in accordance with GL 86-10 and GL 88-12 do not revise the requirements for fire protection operability, testing, or inspections. Such amendments simply replace the fire protection TS sections with the standard fire protection license condition. The license condition implements and maintains the NRC-approved fire protection program, including the fire protection requirements previously specified in the TS, in accordance with 10 CFR 50.48. Therefore, such amendments, including the one proposed by the licensee, are administrative in nature and have no effect on the public health and safety.

## 2.0 BACKGROUND

Section 182a of the Atomic Energy Act (the "Act") requires applicants for nuclear power plant operating licenses to state TS to be included as part of the license. The Commission's regulatory requirements related to the content of TS are set forth in 10 CFR 50.36. That regulation requires that the TS include items in five specific categories, including (1) safety limits, limiting safety system settings and limiting control settings; (2) limiting conditions for operation; (3) surveillance requirements; (4) design features; and (5) administrative controls. However, the regulation does not specify the particular requirements to be included in a plant's TS.

The Commission has provided guidance for the contents of TS in its "Final Policy Statement on Technical Specifications Improvements for Nuclear Power Reactors" ("Final Policy Statement"), 58 FR 39132 (July 22, 1993), in which the Commission indicated that compliance with the Final Policy Statement satisfies Section 182a of the Act. In particular, the Commission indicated that certain items could be relocated from the TS to licensee-controlled documents, consistent with the standard enunciated in *Portland General Electric Co. (Trojan Nuclear Plant)*, ALAB-531, 9 NRC 263, 273 (1979). In that case, the Atomic Safety and Licensing Appeal Board indicated that "technical specifications are to be reserved for those matters as to which the imposition of rigid conditions or limitations upon reactor operation is deemed necessary to obviate the possibility of an abnormal situation or event giving rise to an immediate threat to the public health and safety." The criteria set forth in the policy statement have been incorporated into 10 CFR 50.36 (60 FR 36953).

Following the fire at the Browns Ferry Nuclear Power Plant on March 22, 1975, the Commission undertook a number of actions to ensure that improvements were implemented in the fire protection programs for all power reactor facilities. Because of the extensive modification of fire protection programs and the number of open issues resulting from staff evaluations, a number of revisions and alterations occurred in these programs over the years. Consequently, licensees were requested by GL 86-10 to incorporate the final NRC-approved fire protection program in their FSARs. In this manner, the fire protection

program, including the systems, certain administrative and technical controls, the organization, and other plant features associated with fire protection, would have a status consistent with that of other plant features described in the FSAR. In addition, the Commission concluded that a standard license condition, requiring compliance with the provisions of the fire protection program as described in the FSAR, should be used to ensure uniform enforcement of the fire protection requirements. Finally, the Commission stated that with the required actions, licensees may request an amendment to delete the fire protection TS that would now be unnecessary. Subsequently, the NRC issued GL 88-12 to give guidance for the preparation of the license amendment request to implement GL 86-10.

### 3.0 PROPOSED CHANGES

The specific TS changes proposed by the licensee are as follows:

1. Revise License Condition 2.C.(4) for Unit 1 and License Condition 2.C.(3)(o) for Unit 2 as follows:

Indiana Michigan Power Company shall implement and maintain, in effect, all provisions of the approved Fire Protection Program as described in the Updated Final Safety Analysis Report for the facility and as approved in the SERs dated December 12, 1977, July 31, 1979, January 30, 1981, February 7, 1983, November 22, 1983, December 23, 1983, March 16, 1984, August 27, 1985, June 30, 1986, January 28, 1987, May 26, 1987, June 16, 1988, June 17, 1988, June 7, 1989, February 1, 1990, February 9, 1990, March 26, 1990, April 26, 1990, March 31, 1993, April 8, 1993, December 14, 1994, January 24, 1995, April 19, 1995, June 8, 1995, and [the date of this safety evaluation], subject to the following provision:

The licensee may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

2. Delete TS 3/4.3.3.7 (Instrumentation - Fire Detection instrumentation) and their associated bases and table and incorporate them, by reference to the Fire Protection Program, into the D.C. Cook UFSAR.
3. Delete TS 3/4.7.9 (Plant Systems - Fire Suppression Systems) and their associated bases and tables, including 3/4.7.9.1 (Fire Suppression Water System), 3/4.7.9.2 (Spray and/or Sprinkler Systems), 3/4.7.9.3 (Low Pressure CO<sub>2</sub> Systems), 3/4.7.9.4 (Halon Systems), and 3/4.7.9.5 (Fire Hose Stations), and incorporate them, by reference to the Fire Protection Program, into the D.C. Cook UFSAR.
4. Delete TS 3/4.7.10 (Plant Systems - Fire Rated Assemblies) and their associated bases and incorporate them, by reference to the Fire Protection Program, into the D.C. Cook UFSAR.

5. Delete TS 6.2.2.e., fire brigade staffing, and the related portion of the associated footnote, and incorporate them, by reference to the Fire Protection Program, into the D.C. Cook UFSAR.
6. Create TS 6.8.1.g. to add "Fire Protection Program implementation" to the list of activities for which written procedures shall be established, implemented and maintained.
7. Revise the Index to reflect the TS changes.

#### 4.0 EVALUATION

The NRC staff reviewed the license amendment requests for D. C. Cook against the guidance provided in GLs 86-10 and 88-12. GL 86-10 requested that the licensee incorporate the NRC-approved fire protection program in its UFSAR for the facility and specified a standard fire protection license condition. GL 88-12 addressed the elements a licensee should include in a license amendment request to remove the fire protection requirements from the plant TS. These elements are (1) the NRC-approved fire protection program must be incorporated into the UFSAR; (2) the Limiting Conditions for Operation (LCOs) and Surveillance Requirements associated with fire detection systems, fire suppression systems, fire barriers, and the administrative controls that address fire brigade staffing would be relocated from the TS (the existing administrative controls associated with fire protection audits and specifications related to the capability for safe shutdown following a fire would be retained); (3) all operational conditions, remedial actions, and test requirements presently included in the TS for these systems, as well as the fire brigade staffing requirements, shall be incorporated into the fire protection program; (4) the standard fire protection license condition specified in GL 86-10 must be included in the facility operating license; (5) the Plant Nuclear Safety Review Committee (Onsite Review Group) shall be given responsibility for the review of the fire protection program and implementing procedures and for the submittal of recommended changes to the Nuclear Safety and Design Review Committee (Offsite or Corporate Review Group); and (6) fire protection program implementation shall be added to the list of elements for which written procedures shall be established, implemented, and maintained. The licensee incorporated the NRC-approved fire protection program by reference into the D.C. Cook UFSAR in July 1994. The licensee has, therefore, satisfied Element 1 of GL 88-12.

The licensee stated in its submittal of June 20, 1995, that it will incorporate the current TS LCOs and surveillance requirements for the fire detection systems, fire suppression systems, and the TS requirements related to fire brigade staffing into the D.C. Cook Fire Protection Program. Therefore, the licensee will have satisfied Elements 2 and 3 of GL 88-12.

The licensee proposed incorporating the standard fire protection license condition specified in GL 86-10 for D.C. Cook. The licensee has, therefore, satisfied Element 4 of GL 88-12.

To satisfy Element 5 of GL 88-12, the licensee addressed changes to the administrative controls sections of the TS. The licensee will require the

Plant Nuclear Safety Review Committee and Nuclear Safety and Design Review Committee to review the fire protection program and implementing procedures as well as recommended changes as an additional responsibility. The licensee has, therefore, satisfied Element 5 of GL 88-12.

Element 6 of GL 88-12 specified that the licensee add fire protection program implementation to the administrative controls Section of the TS. This change is made to the list of elements for which written procedures shall be established, implemented, and maintained. The licensee has added TS 6.8.1.h. (a TS 6.8.1."g" was added by a previous amendment) which addresses the fire protection program; therefore, the proposal has satisfied Element 6 of GL 88-12.

The licensee's proposed TS amendments for D.C. Cook are in accordance with NRC staff guidance provided in GLs 86-10 and 88-12.

In summary, the licensee has proposed to incorporate the existing TS fire protection requirements as stated above into the fire protection program which is, by reference, incorporated into the UFSAR. This conforms to staff guidance in GL 86-10, "Implementation of Fire Protection Requirements," and GL 88-12, "Removal of Fire Protection Requirements from Technical Specifications," for removing unnecessary fire protection TS in four major areas: fire detection systems, fire suppression systems, fire barriers, and fire brigade staffing requirements. In addition, incorporating these requirements into the UFSAR is consistent with NUREG-1431, "Standard Technical Specifications, Westinghouse Plants and 10 CFR 50.36, as amended, because these TS do not impact reactor operations, do not identify a parameter which is an initial condition assumption for a design-basis accident or transient, do not identify a significant abnormal degradation of the reactor coolant pressure boundary, and do not provide any mitigation of a design-basis event.

The fire protection plan required by 10 CFR 50.48, as implemented and maintained by the fire protection license condition, provides reasonable assurance that fires will not give rise to an immediate threat to public health and safety. Although there are aspects of the fire detection and mitigation functions that have been determined to be risk significant, such that Criterion 4 of 10 CFR 50.36 would otherwise seem to apply, the minimum requirements for those functions were established in GDC 3 and 10 CFR 50.48, and further controls are not necessary since the licensee must comply with these minimum requirements regardless of whether they are restated in the TS or not.

The licensee's fire protection program is required by 10 CFR 50.48, and any changes to that program are governed by 10 CFR 50.48 and license conditions 2.C.(4) (Unit 1) and 2.C.(3)(o) (Unit 2), set forth above. Therefore, the requirements relocated to the UFSAR may be controlled in accordance with 10 CFR 50.59.

These relocated requirements relating to fire protection features are not required to be in the TS under 10 CFR 50.36 or other regulations, or by Section 182a of the Atomic Energy Act, and are not required to obviate the possibility of an abnormal situation or event giving rise to an immediate

threat to the public health and safety. In addition, the staff finds that sufficient regulatory controls exist under 10 CFR 50.48 and 10 CFR 50.59 to address future changes to these requirements. Accordingly, the staff has concluded that these requirements may be relocated from the TS to the licensee's UFSAR.

#### 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

The amendments change the requirements with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and change 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 (60 FR 47620). 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: C. R. Thomas (By precedent)  
K. S. West (By precedent)  
J. B. Hickman

Date: March 11, 1996