

Docket Nos. 50-315
and 50-316

June 30, 1986

Mr. John Dolan, Vice President
Indiana and Michigan Electric Company
c/o American Electric Power Service Corporation
1 Riverside Plaza
Columbus, Ohio 43216

Dear Mr. Dolan:

The Commission has issued the enclosed Amendment No. 97 to Facility Operating License No. DPR-58 and Amendment No. 84 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 in response to your application transmitted by letter dated March 14, 1986.

These amendments revise the Technical Specification by changing the automatic actuation of the control room charcoal filter fire protection system to manual actuation.

A copy of the related Safety Evaluation is enclosed. A Notice of Issuance will be included in the Commission's next bi-weekly Federal Register notice.

Sincerely,

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D. L. Wigginton, Project Manager
PWR Project Directorate #4
Division of PWR Licensing-A, NRR

Enclosures:

1. Amendment No. 97 to DPR-58
2. Amendment No. 84 to DPR-74
3. Safety Evaluation

cc: w/enclosures
See next page

DW
PWR#4:DPWR-A
DWigginton:mac
06/14/86

MDuncan
PWR#4:DPWR-A
MDuncan
06/15/86

OELD
SAW
06/13/86

BJYoungblood
PWR#4:DPWR-A
BJYoungblood
06/30/86

8607100081 860630
PDR ADOCK 05000315
P PDR

Mr. John Dolan
Indiana and Michigan Electric Company

Donald C. Cook Nuclear Plant

cc:

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Vice President
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June 30, 1986

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AMENDMENT NO. 97 TO DC COOK UNITS 1 AND 2
84



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

INDIANA AND MICHIGAN ELECTRIC COMPANY

DOCKET NO. 50-315

DONALD C. COOK NUCLEAR PLANT UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 97
License No. DPR-58

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Indiana and Michigan Electric Company (the licensee) dated March 14, 1986, 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:

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PDR ADOCK 05000315
P PDR

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 97, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

(3) The change in Technical Specifications is to become effective within 60 days of issuance of the amendment. In the period between issuance of the amendment and the effective date of the new Technical Specifications, the licensee shall adhere to the Technical Specifications for the systems, components, or operation existing at the time. The period of time during changeover of systems, components or operation shall be minimized or compensated for by suitable temporary alternatives.

(4) This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

151

B. J. Youngblood, Director
PWR Project Directorate #4
Division of PWR Licensing-A, NRR

Attachment:
Changes to the Technical
Specifications

Date of Issuance: June 30, 1986

DW
PWR#4:DPWR-A
DWigginton:mac
06/4/86

MD
PWR#4:DPWR-A
MDuncan
06/5/86

OELD
SET
06/13/86

DW
PWR#4:DPWR-A
BJYoungblood
06/30/86



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

INDIANA AND MICHIGAN ELECTRIC COMPANY

DOCKET NO. 50-316

DONALD C. COOK NUCLEAR PLANT UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 84
License No. DPR-74

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Indiana and Michigan Electric Company (the licensee) dated March 14, 1986 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. 84, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

(3) The change in Technical Specifications is to become effective within 60 days of issuance of the amendment. In the period between issuance of the amendment and the effective date of the new Technical Specifications, the licensee shall adhere to the Technical Specifications for the systems, components, or operation existing at the time. The period of time during changeover of systems, components or operations shall be minimized or compensated for by suitable temporary alternatives.

(4) This license amendment is effective as of the date of its issuance

FOR THE NUCLEAR REGULATORY COMMISSION

151

B. J. Youngblood, Director
PWR Project Directorate #4
Division of PWR Licensing-A, NRR

Attachment:
Changes to the Technical
Specifications

Date of Issuance: June 30, 1986

DN
PWR#4: DPWR-A
DWigginton:rad
06/4/86

MD
PWR#4: DPWR-A
MDuncan
06/5/86

SA
OELD
06/13/86

BJ
PWR#4: DPWR-A
BJYoungblood
06/30/86

ATTACHMENT TO LICENSE AMENDMENTS

AMENDMENT NO. 97 FACILITY OPERATING LICENSE NO. DPR-58

AMENDMENT NO. 84 FACILITY OPERATING LICENSE NO. DPR-74

DOCKET NOS. 50-315 AND 50-316

Revise Appendix A as follows:

Remove Pages

Insert Pages

Unit 1

3/4 7-46

3/4 7-46

B 3/4 7-8

B 3/4 7-8

Unit 2

3/4 7-41

3/4 7-41

B 3/4 7-7

B 3/4 7-7

TABLE 3.7-5

SPRAY AND/OR SPRINKLER SYSTEMS

A. OPEN HEAD DELUGE TYPE WATER SYSTEMS

<u>LOCATION</u>	<u>ACTUATION</u>
1-HV-AES-1 Charcoal Filters	Manual & Electric-heat
1-HV-AES-2 Charcoal Filters	Manual & Electric-heat
12-HV-AFX Charcoal Filters*	Manual & Electric-heat
1-HV-CPR-1 Charcoal Filters	Manual & Electric-heat
1-HV-CIPX-1 Charcoal Filters	Manual & Electric-heat
1-HV-ACRF-1 Charcoal Filters	Manual & Electric-heat

B. CLOSED HEAD SPRINKLER TYPE WATER SYSTEMS

<u>LOCATION</u>	<u>TYPE SYSTEM</u>	<u>ACTUATION</u>
Auxiliary Bldg. Cask Handling Area*	Preaction Sprinkler	Dry Pilot
Auxiliary Bldg. Drumming Area*	Preaction Sprinkler	Dry Pilot
Auxiliary Bldg. Elev. 587* & 609* (Corridors, charging, safety Inj. pump rooms, laundry area)	Preaction Sprinkler	Dry Pilot
Reactor Coolant Pumps (4)	Preaction Sprinkler	Manual

*Shared system with D. C. COOK - UNIT 2.

BASES

3/4.7.9 Cont.

The purpose of the charcoal filter fire suppression T/S is to account for detection and suppression of fires in the charcoal filters. Manual operation of these systems is allowed because two-point heat detection with control room and local annunciation of trouble conditions is provided for the charcoal filters. The OPERABILITY of the fire suppression system protecting the charcoal filters is only required when there is charcoal in the filters. Actuation of spray water onto the charcoal filters requires both the manual opening of the system isolation valve and reaching the high temperature alarm setpoint for the automatic opening of the system deluge valve.

Because of the inaccessibility of the lower containment to personnel during operation due to ALARA radiation exposure concerns, the use of one or more CCTVs in the lower containment, to monitor for fire and smoke, is an acceptable substitute to an hourly fire watch, if the fire suppression system becomes inoperable.

3/4.7.10 FIRE RATED ASSEMBLIES

The OPERABILITY of the fire barriers and barrier penetrations ensures that fire damage will be limited. These design features minimize the possibility of a single fire involving more than one fire area prior to detection and extinguishment. The fire barriers, fire barrier penetrations for conduits, cable trays and piping, fire dampers, and fire doors are periodically inspected to verify their OPERABILITY. The ventilation seals are seals around ventilation duct work penetrating fire barriers.

TABLE 3.7-5

SPRAY AND/OR SPRINKLER SYSTEMS

A. OPEN HEAD DELUGE TYPE WATER SYSTEMS

<u>LOCATION</u>	<u>ACTUATION</u>
2-HV-AES-1 Charcoal Filters	Manual & Electric-heat
2-HV-AES-2 Charcoal Filters	Manual & Electric-heat
12-HV-AFX Charcoal Filters*	Manual & Electric-heat
2-HV-CPR-1 Charcoal Filters	Manual & Electric-heat
2-HV-CIPX-1 Charcoal Filters	Manual & Electric-heat
2-HV-ACRF-1 Charcoal Filters	Manual & Electric-heat

B. CLOSED HEAD SPRINKLER TYPE WATER SYSTEMS

<u>LOCATION</u>	<u>TYPE SYSTEM</u>	<u>ACTUATION</u>
Auxiliary Bldg. Cask Handling Area*	Preaction Sprinkler	Dry Pilot
Auxiliary Bldg. Drumming Area*	Preaction Sprinkler	Dry Pilot
Auxiliary Bldg. Elev. 587* & 609* (Corridors, charging, safety Inj. pump rooms, laundry area)	Preaction Sprinkler	Dry Pilot
Reactor Coolant Pumps (4)	Preaction Sprinkler	Manual

*Shared system with D. C. COOK - UNIT 1.

PLANT SYSTEMS

BASES

other tasks (e.g., an operator on tour) provided that such personnel fulfilled the above stated requirements. As a minimum, each area affected by an isolated low pressure CO₂ system must be visited every twenty-five (25) to thirty-five (35) minutes² by the Roving Fire Watch Patrol. Such measures will provide the necessary level of fire protection while affording necessary provisions for personnel safety.

In the event that portions of the fire suppression systems are inoperable, alternate backup fire fighting equipment is required to be made available in the affected areas until the inoperable equipment is restored to service. When the inoperable fire-fighting equipment is intended for use as a backup means of fire suppression, a longer period of time is allowed to provide an alternate means of fire fighting than if the inoperable equipment is the primary means of fire suppression.

The surveillance requirements provide assurance that the minimum OPERABILITY requirements of the fire suppression systems are met. An allowance is made for ensuring a sufficient volume of Halon and CO₂ in the storage tanks by verifying either the weight, level, or pressure of the tanks.

In the event the fire suppression water system becomes inoperable, immediate corrective measures must be taken since this system provides the major fire suppression capability of the plant. The requirement for a twenty-four hour report to the Commission provides for prompt evaluation of the acceptability of the corrective measures to provide adequate fire suppression capability for the continued protection of the nuclear plant.

The purpose of the charcoal filter fire suppression T/S is to account for detection and suppression of fires in the charcoal filters. Manual operation of these systems is allowed because two-point heat detection with control room and local annunciation of trouble conditions is provided for the charcoal filters. The OPERABILITY of the fire suppression system protecting the charcoal filters is only required when there is charcoal in the filters. Actuation of spray water onto the charcoal filters requires both the manual opening of the system isolation valve and reaching the high temperature alarm setpoint for the automatic opening of the system deluge valve.

Because of the inaccessibility of the lower containment to personnel during operation due to ALARA radiation exposure concerns, the use of one or more CCTVS in the lower containment to monitor for fire and smoke, is an acceptable substitute to a continuous fire watch, if the fire suppression system becomes inoperable.

3/4.7.10 FIRE RATED ASSEMBLIES

The OPERABILITY of the fire barriers and barrier penetrations ensures that fire damage will be limited. These design features minimize the possibility of a single fire involving more than one fire area prior to detection and extinguishment. The fire barriers, fire barrier penetrations for conduits, cable trays and piping, fire dampers, and fire doors are periodically inspected to verify their OPERABILITY. The ventilation seals are seals around ventilation duct work penetrating fire barriers.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 97 TO FACILITY OPERATING LICENSE NO. DPR-58
AND AMENDMENT NO. 84 TO FACILITY OPERATING LICENSE NO. DPR-74
INDIANA AND MICHIGAN ELECTRIC COMPANY
DONALD C. COOK NUCLEAR PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-315 AND 50-316

Introduction

In a March 14, 1986, letter from Mr. M. P. Alexich of Indiana & Michigan Electric Company to Mr. H. R. Denton, Director of the Office of Nuclear Reactor Regulation, a change was requested to the D. C. Cook Unit 1 and 2 Technical Specifications (TS). This change involved a change in the mode of operation of the HVAC charcoal filter fire suppression system from automatic to manual (Table 3.7-5). The change was requested because of past problems experienced in charcoal adsorber units; in one instance the spray header was inadvertently pressurized and in another instance a suppression system isolation valve leaked. In both instances, water damaged the charcoal and had the adsorber unit been called upon to mitigate the consequences of an accident, it would not have performed as intended. To alleviate this problem Indiana and Michigan Electric Company is proposing to close the system gate valve upstream of the automatically operated three-way valve. This would preclude inadvertent system actuation or suppression water leakage. The fire protection for this unit would still include a two-point heat detection system. This system utilizes thermistor sensors in the charcoal units to pre-alarm the control room when an adsorber fire may be imminent.

Administrative controls will be implemented to have the system gate valve opened upon receipt of the pre-alarm signal. Should the temperature continue to rise, a second alarm occurs locally and in the control room and the three-way valve would automatically open and allow the water to reach the spray nozzles which protect the charcoal.

Evaluation

The staff finds the licensee's proposal to change the mode of operation of the suppression system for the charcoal adsorbers from automatic to manual acceptable. Present problems with these systems involve wetting of the adsorber material all too frequently. With the adsorbers wet, they are less likely to perform their intended function if called upon. Thus, any actions which can be taken to preclude inadvertent actuation of the fire suppression systems or leaking of the system valves, while still assuring the availability of the fire protection system associated with the charcoal, are appropriate. While the proposed change will require manual action prior to the automatic actuation of the fire protection system associated with the charcoal filters, operators will be alerted by the pre-alarm signal to take the required manual action on a timely basis. On the above basis, we find the proposed technical specification change for D. C. Cook Units 1 and 2 acceptable.

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Environmental Consideration

These amendments involve a change in the installation or use of the facilities' components located within the restricted areas as defined in 10 CFR 20. The staff has determined that these 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 these amendments involve no significant hazards consideration, and there has been no public comment on such finding. Accordingly, these amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR Sec 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 these amendments.

Conclusion

The Commission made a proposed determination that the amendments involve no significant hazards consideration which was published in the Federal Register (51 FR 16929) on May 7, 1986, and consulted with the state of Michigan. No public comments were received, and the state of Michigan did not have any comments.

We have 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, and (2) such activities will be conducted in compliance with the Commission's regulations, and the issuance of these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributors:

J. Hayes

Dated: June 30, 1986