

Docket Nos.: 50-315
and 50-316

March 27, 1987

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. 102 to Facility Operating License No. DPR-58 and Amendment No. 88 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 December 22, 1986.

These amendments revise the Technical Specifications by deleting the maximum total fuel weight and correcting several typographical errors.

The deletion of the fuel weight from the Technical Specifications is consistent with Section 182 of the Atomic Energy Act of 1954, as amended, in that License Condition 2.B(2) in each Facility Operating License requires the reactor fuel to be as described in the Final Safety Analysis Report, as supplemented and amended. The Donald C. Cook Nuclear Plant Updated Final Safety Analysis Report contains the fuel weights and nothing in this license amendment changes those requirements.

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,

151

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

Enclosures:

1. Amendment No. 102 to DPR-58
2. Amendment No. 88 to DPR-74
3. Safety Evaluation

cc: w/enclosures
See next page

PWR#4/DPWR-A
DWigginton/rad
03/27/87

PWR#4/DPWR-A
MDuncan
03/27/87

PWR#4/DPWR-A
BJYoungblood
03/27/87

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PDR ADDCK 05000315
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Mr. John Dolan
Indiana and Michigan Electric Company

Donald C. Cook Nuclear Plant

cc:

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Lansing, Michigan 48909

Dated: March 27, 1987

AMENDMENT NO. 102 TO FACILITY OPERATING LICENSE NO. DPR-58 - DONALD C. COOK, UNIT 1
AMENDMENT NO. 88 TO FACILITY OPERATING LICENSE NO. DPR-74 - DONALD C. COOK, UNIT 2

DISTRIBUTION: w/enclosures

Docket File

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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. 102
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 December 22, 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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(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No.102, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

- 3. The Technical Specification is effective within 60 days of issuance.
- 4. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

151

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

Attachment:
Changes to the Technical
Specifications

Date of Issuance: March 27, 1987

*See date
note*

3/17/87

DW
PWR#4/DPWR-A
DWigginton/rad
03/5/87

MD
PWR#4/DPWR-A
MDuncan
03/5/87

JR
OGC-Bethesda
JKRaman
03/6/87

BJ
PWR#4/DPWR-A
BJYoungblood
03/27/87

WLF



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. 88
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 December 22, 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. 88, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. The Technical Specification is effective within 60 days of issuance.
4. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

151

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

Attachment:
Changes to the Technical
Specifications

Date of Issuance: March 27, 1987

DW
PWR#4/DPWR-A
DWigginton/rad
03/5/87

MD
PWR#4/DPWR-A
MDuncan
03/5/87

M. Rahman
OGC-Bethesda
M. Rahman
03/6/87

BJ
PWR#4/DPWR-A
BJYoungblood
03/5/87

[Signature]

ATTACHMENT TO LICENSE AMENDMENTS

AMENDMENT NO. 102 FACILITY OPERATING LICENSE NO. DPR-58

AMENDMENT NO. 88 FACILITY OPERATING LICENSE NO. DPR-74

DOCKET NOS. 50-315 AND 50-316

Revise Appendix A as follows:

<u>Remove Pages</u>	<u>Insert Pages</u>
<u>Unit 1</u>	
5-4	5-4
<u>Unit 2</u>	
5-4	5-4

DESIGN FEATURES

DESIGN PRESSURE AND TEMPERATURE

5.2.2 The reactor containment building is designed and shall be maintained in accordance with the original design provisions contained in Section 5.2.2 of the FSAR.

PENETRATIONS

5.2.3 Penetrations through the reactor containment building are designed and shall be maintained in accordance with the original design provisions contained in Section 5.4 of the FSAR with allowance for normal degradation pursuant to the applicable Surveillance Requirements.

5.3 REACTOR CORE

FUEL ASSEMBLIES

5.3.1 The reactor core shall contain 193 fuel assemblies with each fuel assembly containing 204 fuel rods clad with Zircaloy -4. Each fuel rod shall have a nominal active fuel length of 144 inches. The initial core loading shall have a maximum enrichment of 3.35 weight percent U-235. Reload fuel shall be similar in physical design to the initial core loading and shall have a maximum enrichment of 4.0 weight percent U-235.

CONTROL ROD ASSEMBLIES

5.3.2 The reactor core shall contain 53 full length and no part length control rod assemblies. The full length control rod assemblies shall contain a nominal 142 inches of absorber material. The nominal values of absorber material shall be 80 percent silver, 15 percent indium and 5 percent cadmium. All control rods shall be clad with stainless steel tubing.

5.4 REACTOR COOLANT SYSTEM

DESIGN PRESSURE AND TEMPERATURE

5.4.1 The reactor coolant system is designed and shall be maintained:

DESIGN FEATURES

5.3 REACTOR CORE

FUEL ASSEMBLIES

5.3.1 The reactor core shall contain 193 fuel assemblies with each fuel assembly containing 264 fuel rods clad with Zircaloy -4. Each fuel rod shall have a nominal active fuel length of 144 inches. The initial core loading shall have a maximum enrichment of 3.3 weight percent U-235. Reload fuel shall be similar in physical design to the initial core loading and shall have a maximum enrichment of 3.84 weight percent U-235.

CONTROL ROD ASSEMBLIES

5.3.2 The reactor core shall contain 53 full length and no part length control rod assemblies. The full length control rod assemblies shall contain a nominal 142 inches of absorber material. The nominal values of absorber material shall be 80 percent silver, 15 percent indium and 5 percent cadmium. All control rods shall be clad with stainless steel tubing.

5.4 REACTOR COOLANT SYSTEM

DESIGN PRESSURE AND TEMPERATURE

5.4.1 The reactor coolant system is designed and shall be maintained:

- a. In accordance with the code requirements specified in Section 4.1.6 of the FSAR, with allowance for normal degradation pursuant to the applicable Surveillance Requirements.
- b. For a pressure of 2485 psig, and
- c. For a temperature of 650°F, except for the pressurizer which is 680°F.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 102 TO FACILITY OPERATING LICENSE NO. DPR-58
AND AMENDMENT NO. 88 TO FACILITY OPERATING LICENSE NO. DPR-74
INDIANA AND MICHIGAN ELECTRIC COMPANY
DONALD C. COOK NUCLEAR PLANT, UNITS 1 AND 2
DOCKET NOS. 50-315 AND 50-316

INTRODUCTION

By letter from M.P. Alexich to H. Denton dated December 22, 1986, Indiana and Michigan Electric Company requested changes to Operating Licenses DPR-58 and DPR-74. At present the Design Features Section 5.3.1, Fuel Assemblies, of the D.C. Cook Nuclear Plant Technical Specifications for Unit 1 (which is fueled with Westinghouse fuel) identifies a maximum total fuel rod weight of 2,236 grams of uranium. Recent changes by Westinghouse to the fuel design, including chamfered pellets with a reduced dish and use of the integrated dry route process, have increased fuel weights slightly. The proposed change will delete the weight limits from the Technical Specifications to allow use of the slightly heavier fuel. Although D.C. Cook Unit 2 (which is fueled with Exxon fuel) has not exceeded the technical specification maximum total fuel rod weight as presently designed, the licensee has requested that the deletion of fuel rod weight also be applied to the Unit 2 technical specification in the Design Features Section 5.3.1, Fuel Assemblies, of the D.C. Cook Unit 2 Technical Specifications. The licensee also proposes to correct typographical errors.

EVALUATION

The important safety related parameters which are indirectly affected by fuel weight, such as reactor criticality, power level, power distribution and the rate of decay heat production, are all regulated by requirements in the Limiting Condition for Operation sections of the Technical Specifications. In addition, the fuel weight is implicitly included in the nuclear design analysis performed for each reactor operating cycle and used to evaluate conformance with established limits for Design Basis Events. For small fuel weight increases without a significant change in fuel design, there is no impact on the safety analysis. A significant change in the fuel design would be the subject of review and changes to the other governing Technical Specifications or may be an unreviewed safety question as defined in 10 CFR 50.59.

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We therefore conclude that there will be no significant safety impact in deleting the maximum fuel weight from Technical Specification 5.3.1. We also find this action preferable to changing the Specification each cycle to accommodate the applicable weight, or to specifying an artificial upper value of the weight to bound future variations. The proposed change is therefore acceptable. We have also reviewed the errors brought to our attention and agree they are typographical errors and the changes are appropriate.

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

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: D. Wigginton
L. Bell

Dated: March 27, 1987