

Docket Nos. 50-315  
and 50-316

Mr. Milton P. Alexich, Vice President  
Indiana Michigan Power Company  
c/o American Electric Power Service Corporation  
1 Riverside Plaza  
Columbus, Ohio 43216

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Dear Mr. Alexich:

SUBJECT: AMENDMENTS NOS 115 AND 101 TO FACILITY OPERATING LICENSES NOS. DPR-58  
AND DPR-74: RADIOACTIVE EFFLUENTS (TACS NOS. 66124/66125)

The Commission has issued the enclosed Amendment No. 115 to Facility Operating License No. DPR-58 and Amendment No. 101 to Facility Operating License No. DPR-74 for the Donald C. Cook Nuclear Plant, Units Nos. 1 and 2. The amendments consist of changes to the Technical Specifications in response to your application dated November 2, 1987.

These amendments add incinerated oil surveillance and radioactive release requirements to the Radiological Environmental Technical Specifications (RETS).

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

Sincerely,

Daniel R. Muller/ for

John F. Stang, Project Manager  
Project Directorate III-1  
Division of Reactor Projects - III, IV, V  
& Special Projects

Enclosures:

1. Amendment No. 115 to DPR-58
2. Amendment No. 101 to DPR-74
3. Safety Evaluation

cc w/enclosures:  
See next page

LA/PD31:DRSP  
JRingram  
5/11/88

PM/PD31:DRSP  
JStang  
5/15/88

D/PD31:DRSP  
DMuller  
5/18/88

OGC  
5/16/88

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P PDR



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555  
May 19, 1988

Dockets Nos. 50-315  
and 50-316

Mr. Milton P. Alexich, Vice President  
Indiana Michigan Power Company  
c/o American Electric Power Service Corporation  
1 Riverside Plaza  
Columbus, Ohio 43216

Dear Mr. Alexich:

SUBJECT: AMENDMENTS NOS. 115 AND 101 TO FACILITY OPERATING LICENSES NOS. DPR-58  
AND DPR-74: RADIOACTIVE EFFLUENTS (TACS NOS. 66124/66125)

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These amendments add incinerated oil surveillance and radioactive release requirements to the Radiological Environmental Technical Specifications (RETS).

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

Sincerely,

A handwritten signature in cursive script, reading "John F. Stang", followed by a slanted line.

John F. Stang, Project Manager  
Project Directorate III-1  
Division of Reactor Projects - III, IV, V  
& Special Projects

Enclosures:

1. Amendment No. 115 to DPR-58
2. Amendment No. 101 to DPR-74
3. Safety Evaluation

cc w/enclosures:  
See next page

Mr. Milton Alexich  
Indiana Michigan Power Company

Donald C. Cook Nuclear Plant

cc:  
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U.S. Nuclear Regulatory Commission  
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Glen Ellyn, Illinois 60137

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Columbus, Ohio 43216

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Department of Attorney General  
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Donald C. Cook Nuclear Plant  
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U.S. Nuclear Regulatory Commission  
Resident Inspectors Office  
7700 Red Arrow Highway  
Stevensville, Michigan 49127

Gerald Charnoff, Esquire  
Shaw, Pittman, Potts and Trowbridge  
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Washington, DC 20037

Mayor, City of Bridgeman  
Post Office Box 366  
Bridgeman, Michigan 49106

Special Assistant to the Governor  
Room 1 - State Capitol  
Lansing, Michigan 48909

Nuclear Facilities and Environmental  
Monitoring Section Office  
Division of Radiological Health  
Department of Public Health  
3500 N. Logan Street  
Post Office Box 30035  
Lansing, Michigan 48909



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

INDIANA MICHIGAN POWER COMPANY

DOCKET NO. 50-315

DONALD C. COOK NUCLEAR PLANT, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 115  
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 November 2, 1987, 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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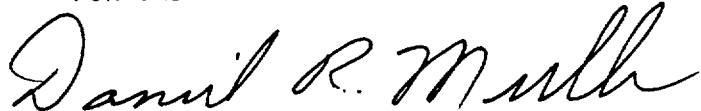
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-58 is hereby amended to read as follows:

Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 115, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Daniel R. Muller, Acting Director  
Project Directorate III-1  
Division of Reactor Projects - III, IV, V  
& Special Projects

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: May 19, 1988



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

INDIANA MICHIGAN POWER COMPANY

DOCKET NO. 50-316

DONALD C. COOK NUCLEAR PLANT, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 101  
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 November 2, 1987, 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.

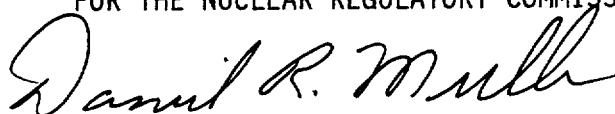
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-74 is hereby amended to read as follows:

Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 101, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Daniel R. Muller, Acting Director  
Project Directorate III-1  
Division of Reactor Projects - III, IV, V  
& Special Projects

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: May 19, 1988

ATTACHMENT TO LICENSE AMENDMENTS

AMENDMENT NO.115 FACILITY OPERATING LICENSE NO. DPR-58

AMENDMENT NO. 101 FACILITY OPERATING LICENSE NO. DPR-74

DOCKETS NOS. 50-315 AND 50-316

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 marginal lines indicating the area of change.

REMOVE

UNIT 1

INSERT

3/4 11-8  
3/4 11-9  
3/4 11-11

3/4 11-8  
3/4 11-9  
3/4 11-11

UNIT 2

3/4 11-8  
3/4 11-9  
3/4 11-11

3/4 11-8  
3/4 11-9  
3/4 11-11



TABLE 4.11-2  
RADIOACTIVE GASEOUS WASTE SAMPLING AND ANALYSIS PROGRAM

Gaseous Release Type	Frequency	Minimum Analysis Frequency	Type of Activity Analysis	Lower Limit of Detection (uci/ml) a
a. Waste Gas Storage Tank	P Each Tank Grab Sample	P Each Tank	Principal Gamma Emitters <sup>e</sup>	1 X 10 <sup>-4</sup>
b. Containment Purge	P Each Purge Grab Sample <sup>b</sup>	P Each Purge <sup>b</sup>	Principal Gamma Emitters <sup>e</sup>	1 X 10 <sup>-4</sup>
			H-3	1 X 10 <sup>-6</sup>
c. Condenser Evacuation System and Gland Seal Exhaust*	W Grab Sample <sup>b</sup>	M <sup>b</sup> Particulate Sample	Principal Gamma Emitters <sup>e</sup>	1 X 10 <sup>-4</sup>
		M <sup>b</sup>	H-3	1 X 10 <sup>-6</sup>
		M <sup>b</sup> Iodine Adsorbing/ Media	I-131	1 X 10 <sup>-12</sup>
	Continuous <sup>d</sup>	Noble Gas Monitor	Noble Gases	1 X 10 <sup>-6</sup>
d. Auxiliary Building Vent	Continuous <sup>d</sup>	W <sup>c</sup> Iodine Adsorbing/ Media	I-131	1 X 10 <sup>-12</sup>
	Continuous <sup>d</sup>	W <sup>c</sup> Particulate Sample	Principal Gamma Emitters <sup>e</sup>	1 X 10 <sup>-11</sup>
	Continuous <sup>d</sup>	M Composite Particulate Sample	Gross Alpha	1 X 10 <sup>-11</sup>
	Continuous <sup>d</sup>	M Composite	H-3	1 X 10 <sup>-6</sup>
	Continuous <sup>d</sup>	Q Composite Particulate Sample	Sr-89, Sr-90	1 X 10 <sup>-11</sup>
	Continuous <sup>d</sup>	Noble Gas Monitor	Noble Gases	1 X 10 <sup>-6</sup>
e. Incinerated Oil <sup>f</sup>	P Each Batch <sup>g</sup>	P Each Batch <sup>g</sup>	Principal Gamma Emitters	5 X 10 <sup>-7</sup>

\* As equipment becomes operational

TABLE 4.11-2 (cont)

TABLE NOTATION

- a. The lower limit of detection (LLD) is defined in Table Notation a. of Table 4.12-1 of Specification 4.12.1.1.
- b. Analyses shall also be performed following any operational occurrence which has altered the mixture of radionuclides as indicated by RCS analysis. (i.e., start-up.)
- c. Samples shall be changed at least once per 7 days and analyses shall be completed within 48 hours after changing. Analyses shall also be performed at least once per 24 hours for 7 days following each shutdown, startup or similar operational occurrence which lead to significant increases or decreases in radioiodine in the Reactor Coolant System. When samples collected for 24 hours are analyzed, the corresponding LLD's may be increased by a factor of 10.
- d. The ratio of the sample flow rate to the sampled stream flow rate shall be known for the time period covered by each dose or dose rate calculation made in accordance with Specification 3.11.2.1, 3.11.2.2, 3.11.2.3.
- e. The principal gamma emitters for which the LLD specification applies exclusively are the following radionuclides: Kr-87, Kr-88, Xe-133, Xe-133M, Xe-135 and Xe-138 for gaseous emissions and Mn-54, Fe-59, Co-58, Co-60, Zn-65, Mo-99, Cs-134, Cs-137, Ce-141 and Ce-144 for particulate emissions. This list does not mean that only these nuclides are to be detected and reported. Other peaks which are measurable and identifiable, together with the above nuclides, shall also be identified and reported.
- f. Releases from incinerated oil are discharged through the Auxiliary Boiler System. Releases shall be accounted for based on pre-release grab sample data.
- g. Samples of waste oil to be incinerated shall be collected from the container in which the waste oil is stored (e.g., waste oil storage tank, 55 gal. drums) prior to transfer to the Auxiliary Boiler System and shall be representative of container contents.

## RADIOACTIVE EFFLUENTS

### DOSE, RADIOIODINES, RADIOACTIVE MATERIAL IN PARTICULATE FORM, AND RADIONUCLIDES OTHER THAN NOBLE GASES

#### LIMITING CONDITION FOR OPERATION

---

3.11.2.3 The dose to A MEMBER OF THE PUBLIC from radioiodine, radioactive materials in particulate form, and radionuclides other than noble gases with half-lives greater than 8 days in gaseous effluents released to unrestricted areas shall be limited to the following:

- a. During any calendar quarter to less than or equal to 7.5 mrem to any organ;
- b. During any calendar year to less than or equal to 15 mrem to any organ;
- c. Less than 0.1% of the 3.11.2.3 (a) and (b) limits as a result of burning contaminated oil.

APPLICABILITY: At all times.

#### ACTION:

- a. With the calculated dose from the release of radioiodines, radioactive materials in particulate form, or radionuclides other than noble gases in gaseous effluents exceeding any of the above limits, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report which identifies the cause(s) for exceeding the limit and defines the corrective actions taken to reduce the releases and the proposed corrective action to be taken to assure that subsequent release will be within the above limits.
- b. The provisions of Specification 3.0.3, 3.0.4, and 6.9.1.13 are not applicable.

#### SURVEILLANCE REQUIREMENTS

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4.11.2.3 DOSE CALCULATIONS Cumulative dose contributions for the total time period shall be determined in accordance with the ODCM at least once every 31 days.

TABLE 4.11-2  
RADIOACTIVE GASEOUS WASTE SAMPLING AND ANALYSIS PROGRAM

Gaseous Release Type	Frequency	Minimum Analysis Frequency	Type of Activity Analysis	Lower Limit of Detection (uci/ml) <sup>a</sup>
a. Waste Gas Storage Tank	P Each Tank Grab Sample	P Each Tank	Principal Gamma Emitters <sup>e</sup>	1 X 10 <sup>-4</sup>
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	Each Purge Grab Sample <sup>b</sup>	Each Purge <sup>b</sup>	H-3	1 X 10 <sup>-6</sup>
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\* As equipment becomes operational

TABLE 4.11-2 (cont)

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- d. The ratio of the sample flow rate to the sampled stream flow rate shall be known for the time period covered by each dose or dose rate calculation made in accordance with Specification 3.11.2.1, 3.11.2.2, 3.11.2.3.
- e. The principal gamma emitters for which the LLD specification applies exclusively are the following radionuclides: Kr-87, Kr-88, Xe-133, Xe-133M, Xe-135 and Xe-138 for gaseous emissions and Mn-54, Fe-59, Co-58, Co-60, Zn-65, Mo-99, Cs-134, Cs-137, Ce-141 and Ce-144 for particulate emissions. This list does not mean that only these nuclides are to be detected and reported. Other peaks which are measurable and identifiable, together with the above nuclides, shall also be identified and reported.
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## RADIOACTIVE EFFLUENTS

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3.11.2.3 The dose to A MEMBER OF THE PUBLIC from radioiodines, radioactive materials in particulate form, and radionuclides other than noble gases with half-lives greater than 8 days in gaseous effluents released to unrestricted areas shall be limited to the following:

- a. During any calendar quarter to less than or equal to 7.5 mrem to any organ;
- b. During any calendar year to less than or equal to 15 mrem to any organ;
- c. Less than 0.1% of the 3.11.2.3(a) and (b) limits as a result of burning contaminated oil.

APPLICABILITY: At all times.

#### ACTION:

- a. With the calculated dose from the release of radioiodines, radioactive materials in particulate form, or radionuclides other than noble gases in gaseous effluents exceeding any of the above limits, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report which identifies the cause(s) for exceeding the limit and defines the corrective actions taken to reduce the releases and the proposed corrective action to be taken to assure that subsequent release will be within the above limits.
- b. The provisions of Specification 3.0.3, 3.0.4, and 6.9.1.13 are not applicable.

## SURVEILLANCE REQUIREMENTS

---

4.11.2.3 DOSE CALCULATIONS Cumulative dose contributions for the total time period shall be determined in accordance with the ODCM at least once every 31 days.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 115 TO FACILITY OPERATING LICENSE NO. DPR-58  
AND AMENDMENT NO. 101 TO FACILITY OPERATING LICENSE NO. DPR-74  
INDIANA MICHIGAN POWER COMPANY  
DONALD C. COOK NUCLEAR PLANT, UNITS NOS. 1 AND 2  
DOCKETS NOS. 50-315 AND 50-316

1.0 INTRODUCTION

By letter dated November 2, 1987, the Indiana Michigan Power Company (the licensee) requested amendments to the Technical Specifications appended to Facility Operating Licenses Nos. DPR-58 and DPR-74 for the Donald C. Cook Nuclear Plant, Units Nos. 1 and 2. The proposed amendments would augment the D. C. Cook Radiological Environmental Technical Specifications (RETS) by incorporating commitments to the gaseous effluent Technical Specifications relative to the burning of contaminated oil.

The radioactive effluent releases and procedures for review and analysis were previously approved under the RETS program for D. C. Cook, Units 1 and 2. The implementation of the Technical Specifications for the RETS program overlooked the release pathway through the Auxiliary Boiler System although the releases have been accounted for and reported as appropriate. This proposed amendment would correct the oversight by adding the limits and test requirements to the Technical Specifications.

2.0 EVALUATION

We have evaluated the proposed changes and find that they formalize commitments to procedures that have been used by the licensee since 1981, before implementation of the RETS. No new pathways for gaseous effluents are proposed beyond those already considered in the RETS. The licensee's commitments in the RETS for radioactive effluent monitoring remain the same, and the dose limits to members of the public from the effluents remain the same. The amendments proposed by the licensee would add to the D. C. Cook RETS commitments regarding the burning of contaminated oil approved by the NRC staff and implemented in the RETS of a number of other operating plants such as Calvert Cliffs, Fitzpatrick and Maine Yankee.

The NRC staff considers that the safety and environmental effects of the Technical Specification changes proposed by the licensee fall within the envelope of effluent impacts already considered in the RETS Safety Evaluation for D. C. Cook dated February 7, 1983. We therefore find the changes acceptable.

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PDR ADOCK 05000315  
P PDR

### 3.0 ENVIRONMENTAL CONSIDERATION

These amendments involve a change in the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and a change in a surveillance requirement. We have 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 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 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.

### 4.0 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 the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Date: May 19, 1988

Principal Contributor: W. Meinke