

MAR 10 1976

- DISTRIBUTION:
 NRC PDR
 Local PDR
 LWR 2
 Docket
 OELD
 I&E(4)
 RVollmer
 MJinks (2)
 KGoller
 MR PCota, EP
 MSlater, EP
 RSilver, OR
 RBenedict
 MService
 ACRS (16)
 BScharf (15)
 JBell, FCMS

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

Gentlemen:

By letter dated June 27, 1975, you requested that Byproduct Material License No. 21-15688-01 be amended to include 3.4 curies of sodium 24. The request was intended to permit you to perform standard moisture carryover determination tests for the steam generators at the Donald C. Cook Nuclear Plant.

In our evaluation of your request, we analyzed the consequence of releasing the total 3.4 curies of sodium 24, which is the most severe accident that could result from the proposed operation. Our analysis of this accident, assuming ground level release and 5 percentile accident meteorological conditions ($X/Q = 2.4 \times 10^{-4} \text{ sec/m}^3$) at the site boundary (610 meters), resulted in a whole body dose of 13 mRem (beta plus gamma radiation). We have concluded that such a low dose from this postulated accident represents an insignificant risk to the health and safety of the public.

Recently issued operating licenses or amendments incorporate standard provisions for possession and use of special nuclear, source, and byproduct materials. Therefore, Amendment No. 10 to Facility Operating License DPR-58 (enclosed) includes those provisions necessary to make DPR-58 consistent with other recently issued licenses. In addition, the amendment includes provisions to permit the use of byproduct, source or special nuclear materials for equipment calibration such as that to which your request was addressed. In light of this action, there is no need to amend or continue the Byproduct Material License, which will be terminated.

We have concluded, based on the considerations discussed above, that: (1) because the change does not involve a significant increase in the probability or consequences of accidents previously considered and

OFFICE →	PM: LWR 2	PM: LWR 2 <i>Rob</i>	OELD <i>J</i>	PM: LWR 2 <i>KK</i>	EP
SURNAME →	<i>M</i> M Service	RBenedict	<i>STR</i> STRIDIRot	KKniel	<i>PC</i> PCota
DATE →	2/2/76	3/2/76	3/9/76	3/10/76	3/3/76 <i>q</i>

does not involve a significant decrease in a safety margin, the change does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

A copy of a notice which has been transmitted to the Office of the Federal Register for filing and publication is also enclosed.

Sincerely,

Original signed by
K. Kniel

Karl Kniel, Chief
Light Water Reactors Branch 2
Division of Project Management

Enclosures:

- 1. Amendment No. 10 to DPR-58
- 2. F.R. Notice

ccs w/encl:
Mr. Robert Hunter
Vice President
American Electric Power Service
Corporation
2 Broadway
New York, New York 10004

Gerald Charnoff, Esq.
Shaw, Pittman, Potts & Trowbridge
910 17th Street, N. W.
Washington, D. C. 20006

Businessmen for the Public Interest
Suite 1001
109 North Dearborn Street
Chicago, Illinois 60602

Mr. D. John Beck
Division of Intergovernmental Relations
Executive Office of the Governor
Lansing, Michigan 48913

Mr. Oral H. Hurt, Director
Bureau of Engineering
State Board of Health
1330 West Michigan Street
Indianapolis, Indiana 46206

Mr. Gary Williams
Federal Activities Branch
U.S. Environmental Protection Agency
1 N. Wacker Drive
Chicago, Illinois 60606

OFFICE >						
SURNAME >						
DATE >						

INDIANA AND MICHIGAN ELECTRIC COMPANY

INDIANA AND MICHIGAN POWER COMPANY

DOCKET NO. 50-315

DONALD C. COOK NUCLEAR PLANT, UNIT 1

FACILITY OPERATING LICENSE

License No. DPR-58
Amendment No. 10

1. The Nuclear Regulatory Commission (the Commission) having found that:
- A. The application for amendment by Indiana and Michigan Electric Company and Indiana and Michigan Power Company (the licensees) dated June 27, 1975, 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.
 - E. An environmental statement or negative declaration need not be prepared in connection with the issuance of this amendment.
 - F. The receipt, possession and use of the byproduct, source and special nuclear material as authorized by this license, as amended, will be in accordance with the Commission's regulations in 10 CFR Parts 30, 40 and 70, including Sections 30.33, 40.32, 70.23, and 70.31.

EWK/MSL/MSR 3/3/76

OFFICE →	PM:LWR 2	PM:LWR 2	OELD <i>F</i>	PM:LWR <i>RK</i>		
SURNAME →	MSERVICE	RBenedict	STRIDIRON	KKniel		
DATE →	2/11/76	3/2/76	3/9/76	3/9/76		

2. Accordingly, Facility Operating License No. DPR-58, as amended, is hereby further amended by replacing in their entirety paragraphs 2.B.(2), (3), (4), (5), (6) thereof with the following:

"2.B.(2) Pursuant to the Act and 10 CFR Part 70, to receive, possess and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;

(3) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;

(4) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument and equipment calibration or associated with radioactive apparatus or components;

(5) Pursuant to the Act and 10 CFR Parts 30 and 70, to possess but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility."

3. This amended license is effective as of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Karl Kniel, Chief
Light Water Reactors Branch 2
Division of Project Management

Date of Issuance:
February 1976

OFFICE >						
SURNAME >						
DATE >						

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-315

INDIANA AND MICHIGAN ELECTRIC COMPANY

INDIANA AND MICHIGAN POWER COMPANY

DONALD C. COOK NUCLEAR PLANT, UNIT 1

NOTICE OF ISSUANCE OF AMENDMENT TO
FACILITY OPERATING LICENSE

Notice is hereby given that the U.S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 10 to Facility Operating License No. DPR-58 issued to Indiana and Michigan Electric Company and Indiana and Michigan Power Company for operation of the Donald C. Cook Nuclear Plant, Unit 1, located in Berrien County, Michigan. This amendment is effective as of its date of issuance.

The amendment revises the license to provide standard provisions for possession of source, byproduct, and special nuclear materials.

The application for the amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings required by the Act and the Commission's rules and regulations in 10 CFR Chapter I. These findings are set forth in the license amendment. Prior public notice of this amendment is not required because the amendment does not involve a significant hazards consideration.

G.W. Knight 5/3/76

ROB

OFFICE →	PM:LWR 2	PM:LWR 2	OELD STRIDIRON	PM:LWR 2		
SURNAME →	MS KNIEL	RBenedict	STRIDIRON	KKniel		
DATE →	2/2/76	3/2/76	3/9/76	3/10/76		

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

For further details with respect to this action, see (1) the application for amendment dated June 27, 1975, and Amendment No. 10 to License No. DPR-58. Both of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, NW, Washington, D. C., and at the Maude Preston Palenske Memorial Library, 500 Market Street, St. Joseph, Michigan 49085. A copy of item (2) may be obtained upon request addressed to the U.S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Project Management.

Dated at Bethesda, Maryland this day of February 1976.

FOR THE NUCLEAR REGULATORY COMMISSION

Karl Kniel, Chief
Light Water Reactors Branch 2
Division of Project Management

OFFICE ➤						
SURNAME ➤						
DATE ➤						

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

INDIANA AND MICHIGAN ELECTRIC COMPANY

INDIANA AND MICHIGAN POWER COMPANY

DOCKET NO. 50-315

DONALD C. COOK NUCLEAR PLANT, UNIT 1

FACILITY OPERATING LICENSE

License No. DPR-58
Amendment No. 10

1. The Nuclear Regulatory Commission (the Commission) having found that:
 - A. The application for amendment by Indiana and Michigan Electric Company and Indiana and Michigan Power Company (the licensees) dated June 27, 1975, 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.
 - E. An environmental statement or negative declaration need not be prepared in connection with the issuance of this amendment.
 - F. The receipt, possession and use of the byproduct, source and special nuclear material as authorized by this license, as amended, will be in accordance with the Commission's regulations in 10 CFR Parts 30, 40 and 70, including Sections 30.33, 40.32, 70.23, and 70.31.

2. Accordingly, Facility Operating License No. DPR-58, as amended, is hereby further amended by replacing in their entirety paragraphs 2.B.(2), (3), (4), (5), (6) thereof with the following:

- "2.B.(2) Pursuant to the Act and 10 CFR Part 70, to receive, possess and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;
- (3) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
- (4) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument and equipment calibration or associated with radioactive apparatus or components;
- (5) Pursuant to the Act and 10 CFR Parts 30 and 70, to possess but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility."

3. This amended license is effective as of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Karl Kniel, Chief
Light Water Reactors Branch 2
Division of Project Management

Date of Issuance:

March 10, 1976

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-315

INDIANA AND MICHIGAN ELECTRIC COMPANY

INDIANA AND MICHIGAN POWER COMPANY

DONALD C. COOK NUCLEAR PLANT, UNIT 1

NOTICE OF ISSUANCE OF AMENDMENT TO
FACILITY OPERATING LICENSE

Notice is hereby given that the U.S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 10 to Facility Operating License No. DPR-58 issued to Indiana and Michigan Electric Company and Indiana and Michigan Power Company for operation of the Donald C. Cook Nuclear Plant, Unit 1, located in Berrien County, Michigan. This amendment is effective as of its date of issuance.

The amendment revises the license to provide standard provisions for possession of source, byproduct, and special nuclear materials.

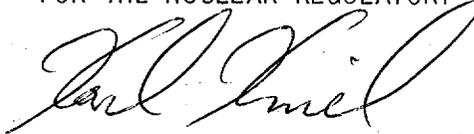
The application for the amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings required by the Act and the Commission's rules and regulations in 10 CFR Chapter I. These findings are set forth in the license amendment. Prior public notice of this amendment is not required because the amendment does not involve a significant hazards consideration.

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

For further details with respect to this action, see (1) the application for amendment dated June 27, 1975, and Amendment No. 10 to License No. DPR-58. Both of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, NW, Washington, D. C., and at the Maude Preston Palenske Memorial Library, 500 Market Street, St. Joseph, Michigan 49085. A copy of item (2) may be obtained upon request addressed to the U.S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Project Management.

Dated at Bethesda, Maryland this 10th day of March 1976.

FOR THE NUCLEAR REGULATORY COMMISSION



Karl Kniel, Chief
Light Water Reactors Branch 2
Division of Project Management

Singer

INDIANA & MICHIGAN POWER COMPANY

P. O. BOX 18
BOWLING GREEN STATION
NEW YORK, N. Y. 10004

June 27, 1975

Docket No. 50-315
DPR No. 58

Mr. Howard J. Larson, Acting Director
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Larson:

It is requested that Byproduct Material License No. 21-15688-01 be amended to include 3.4 curies of Sodium-24. This change is required to perform standard moisture carryover determination tests for the steam generators at the Donald C. Cook Nuclear Plant. Sodium-24 will be prepared in the chemical form of sodium carbonate (Na_2CO_3) by Michigan State University, East Lansing, Michigan. It will be shipped to the plant in a DOT type A container.

The standard moisture carryover test method involves the injection of a short-lived radioactive tracer (Sodium-24, half life of 14.9 hours) into the water in the steam generator where it remains in solution with the water. The moisture carryover from the steam generator is computed from the activities of the steam generator blowdown, condenser hot well and feedwater samples. These tests will be performed at various power levels. Each test requires approximately 600 millicuries of the tracer material. This quantity of Sodium-24 is so small that any release into the environment cannot exceed the Maximum Permissible Concentration value listed in Appendix B of the Title 10 Code of Federal Regulations Part 20.

The tests will be conducted using an approved plant procedure for this experiment, THP 6040 PER.015. The

COPIES SENT TO
REGULATORY OPERATIONS

57409

June 27, 1975

tests will be supervised and monitored by the Plant Radiation Protection Section. Receipt, transport, storage and handling of the licensed radioactive material will be performed in accordance with the approved health physics practices as described in the Donald C. Cook Nuclear Plant Radiation Protection Manual, PMP6010 RAD.001. Approved plant laboratory techniques will also be employed to prevent sample contamination and care will be taken to assure that minimum radioactive contamination occurs.

All other conditions of this license remain the same.

Very truly yours,



John Tillinghast
Vice President

JT:ma

cc: Gerald Charnoff
Robert C. Callen
Peter W. Steketee
Richard Walsh
Robert J. Vollen
R. S. Hunter
R. W. Jurgensen - Bridgman