

January 28, 1997

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

SUBJECT: ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT -
REQUEST TO INCREASE THE LIMIT FOR THE NOMINAL ENRICHMENT OF NEW
FUEL STORED IN THE NEW FUEL STORAGE RACKS, DONALD C. COOK NUCLEAR
PLANT, UNIT NOS. 1 AND 2 (TAC NOS. M94877 AND M94878)

Dear Mr. Fitzpatrick:

Enclosed is a copy of an "Environmental Assessment and Finding of No Significant Impact" for the Donald C. Cook Nuclear Plant, Unit Nos. 1 and 2. The assessment relates to your request for license amendment dated February 26, 1996. The amendments revise the TS to allow an increased limit for the nominal enrichment of new (unirradiated) Westinghouse fabricated fuel stored in the new fuel storage racks. The proposed changes would allow for the storage of fuel with an enrichment not to exceed a nominal 4.95 weight percent (w/o) U-235, subject to certain integral fuel burnable absorber (IFBA) requirements, in the new fuel storage racks. Plant operation using the higher enriched fuel will be demonstrated to be acceptable by a cycle specific reload safety evaluation performed prior to each fuel loading.

The assessment is being forwarded to the Office of the Federal Register for publication.

Sincerely,

Original Signed by

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

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Docket Nos. 50-315
and 50-316

Enclosure: Environmental Assessment

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Mr. E. E. Fitzpatrick
Indiana Michigan Power Company

Donald C. Cook Nuclear Plant

cc:

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Office of Nuclear Reactor Regulation

Docket Nos. 50-315
and 50-316

Enclosure: Environmental Assessment

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

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UNITED STATES NUCLEAR REGULATORY COMMISSION
INDIANA MICHIGAN POWER COMPANY
DOCKET NOS. 50-315 AND 50-316
DONALD C. COOK NUCLEAR PLANT, UNIT NOS. 1 AND 2
ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of amendments to Facility Operating License Nos. DPR-58 and DPR-74, issued to Indiana Michigan Power Company, (the licensee), for operation of the D. C. Cook Nuclear Plant, Units 1 and 2, located in Berrien County, Michigan.

ENVIRONMENTAL ASSESSMENT

Identification of the Proposed Action

By letter dated February 26, 1996, the licensee requested amendments to the Technical Specifications (TS) to allow an increased limit for the nominal enrichment of new (unirradiated) Westinghouse fabricated fuel stored in the new fuel storage racks. The proposed changes would allow for the storage of fuel with an enrichment not to exceed a nominal 4.95 weight percent (w/o) U-235, subject to certain integral fuel burnable absorber (IFBA) requirements, in the new fuel storage racks. Plant operation using the higher enriched fuel will be demonstrated to be acceptable by a cycle specific reload safety evaluation performed prior to each fuel loading.

Need for Proposed Action:

The licensee intends to use higher enrichment fuel in subsequent fuel load cycles which does not currently meet the new fuel storage limits in the TSs. By increasing the fuel enrichment, the licensee will implement the fuel strategies developed for D.C. Cook Units 1 and 2.

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Environmental Impact of the Proposed Action:

The Commission has completed its evaluation of the proposed revision to the TSs and concludes that storage of fuel enriched with U-235 up to 4.95 weight percent at D.C. Cook Units 1 and 2 is acceptable. The safety considerations associated with higher enrichments have been evaluated by the NRC staff and the staff has concluded that such changes would not adversely affect plant safety. The proposed changes have no adverse effect on the probability of any accident. As a result, there is no increase in individual or cumulative radiation exposure.

The environmental impacts of transportation resulting from the use of higher enrichment and extended irradiation are discussed in the staff assessment entitled "NRC Assessment of the Environmental Effects of Transportation Resulting from Extended Fuel Enrichment and Irradiation." This assessment was published in the Federal Register on August 11, 1988 (53 FR 30355), as corrected on August 24, 1988 (53 FR 32322), in connection with the Shearon Harris Nuclear Power Plant, Unit I: Environmental Assessment and Finding of No Significant Impact. As indicated therein, the environmental cost contribution of an increase in fuel enrichment of up to 5 weight percent U-235 and irradiation limits of up to 60 Gigawatt Days per Metric Ton (GWD/MT) are either unchanged, or may in fact be reduced from those summarized in Table S-4 as set forth in 10 CFR 51.52(c). These findings are applicable to the proposed amendment for D.C. Cook Units 1 and 2. Accordingly, the Commission concludes that this proposed action would result in no significant radiological environmental impact.

With regard to potential nonradiological impacts, the proposed changes involve systems located within the restricted area as defined in

FINDING OF NO SIGNIFICANT IMPACT

Based upon the environmental assessment, the Commission concludes that the proposed action will not have a significant effect on the quality of the human environment. Accordingly, the Commission has determined not to prepare an environmental impact statement for the proposed action.

For further details with respect to this action, see the application for license amendment dated February 26, 1996. Copies are available for public inspection at the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC 20555, and at the local public document room located at the Maud Preston Palenske Memorial Library, 500 Market Street, St. Joseph, Michigan 49085.

Dated at Rockville, Maryland, this 28th day of January 1997.

FOR THE NUCLEAR REGULATORY COMMISSION

Original Signed by

John B. Hickman, Project Manager
Project Directorate III-3
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

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10 CFR Part 20. It does not affect nonradiological plant effluents and has no other environmental impact. Therefore, the Commission concludes that there are no significant nonradiological environmental impacts associated with the proposed amendment.

The Notice of Consideration of Issuance of Amendment to Facility Operating License, Proposed No Significant Hazards Consideration Determination, and Opportunity for a Hearing in connection with this action was published in the Federal Register on April 24, 1996 (61 FR 18172).

Alternative to the Proposed Action

Since the Commission concluded that there are no significant environmental effects that would result from the proposed action, any alternative with equal or greater environmental impacts need not be evaluated.

The principal alternative would be to deny the requested amendment. This would not reduce environmental impacts of plant operation and would result in reduced operational flexibility.

Alternative Use of Resources

This action does not involve the use of any resources not previously considered in the Final Environmental Statement for D.C. Cook, Units 1 and 2, dated August 1973.

Agencies and Persons Contacted

In accordance with its stated policy, on December 20, 1996, the Commission consulted with the Michigan State official, Mr. Dennis Hahn of the Michigan Department of Public Health, Nuclear Facilities and Environmental Monitoring, regarding the environmental impact of the proposed action. The State official had no comments.

FINDING OF NO SIGNIFICANT IMPACT

Based upon the environmental assessment, the Commission concludes that the proposed action will not have a significant effect on the quality of the human environment. Accordingly, the Commission has determined not to prepare an environmental impact statement for the proposed action.

For further details with respect to this action, see the application for license amendment dated February 26, 1996. Copies are available for public inspection at the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC 20555, and at the local public document room located at the Maud Preston Palenske Memorial Library, 500 Market Street, St. Joseph, Michigan 49085.

Dated at Rockville, Maryland, this 28th day of January 1997.

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