

November 8, 1988

Dockets Nos. 50-315 and 50-316

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

Dear Mr. Alexich:

SUBJECT: ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT -  
DONALD C. COOK NUCLEAR PLANT, UNITS 1 AND 2 (TACS NOS. 69062  
and 69063)

Enclosed is a copy of an "Environmental Assessment and Finding of No  
Significant Impact" for your information. This assessment relates to your  
application dated August 19, 1988, for amendments to change Sections 5.3.1,  
5.6.1.2, 5.6.2 of the Technical Specifications and license conditions relating  
to fuel enrichment.

This assessment has been forwarded to the Office of the Federal Register for  
publication.

Sincerely,

**original signed by**

Wayne E. Scott, Jr., Project Manager  
Project Directorate III-1  
Division of Reactor Projects - III, IV, V  
& Special Projects

Enclosure:  
As stated

cc w/enclosure:  
See next page

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*[Handwritten signatures and initials]*  
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UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D. C. 20555

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A handwritten signature in cursive script that reads "Wayne E. Scott, Jr.".

Wayne E. Scott, Jr., Project Manager  
Project Directorate III-1  
Division of Reactor Projects - III, IV, V  
& Special Projects

Enclosure:  
As stated

cc w/enclosure:  
See next page

Mr. Milton Alexich  
Indiana Michigan Power Company

Donald C. Cook Nuclear Plant

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

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

ENVIRONMENTAL ASSESSMENT

Identification of Proposed Action:

The proposed amendment would revise the provisions in the Technical Specifications (TSs) and License Conditions relating to fuel enrichment.

The proposed action is in accordance with the licensee's application dated August 19, 1988.

The Need for the Proposed Action:

The proposed amendment is needed so that the licensee can use higher enrichment fuel and provides the flexibility of extending the fuel irradiation and permitting operation of longer fuel cycles.

Environmental Impacts of the Proposed Action:

The Commission has completed its evaluation of the proposed amendment. The proposed revisions would permit use of fuel enriched with Uranium 235 in

excess of 4 weight percent and up to 4.23 weight percent, and the license would expect the fuel to be irradiated to levels above 33 gigawatt days per metric ton (GWD/MT) but not to exceed 50 GWD/MT. The safety considerations associated with reactor operation with higher enrichment and extended irradiation have been evaluated by the Commission's staff. 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. The increase burnup may slightly change the mix of fission products that might be released in the event of a serious accident but such small changes would not significantly affect the consequences of serious accidents. No changes are being made in the types or amounts of any radiological effluents that may be released offsite. There is no significant increase in the allowable individual or cumulative occupational radiation exposure.

With regard to potential nonradiological impacts of reactor operation with higher enrichment and extended irradiation, the proposed changes involve systems located within the restricted area, as defined 10 CFR Part 20. They do not affect nonradiological plant effluents and have no other environmental impact.

The environmental impacts of transportation resulting from the use of higher enrichment fuel and extended irradiation are discussed in the Commission's assessment entitled, "NRC Assessment of the Environmental Effects of Transportation Resulting from Extended Fuel Enrichment and Irradiation," dated July 7, 1988 (53 FR 30355). As indicated therein, the environmental cost contribution of the proposed increase in the fuel enrichment and irradiation limits 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).

The Notice of Consideration of Issuance of Amendment and Opportunity for

Hearing in connection with this action was published in the Federal Register on October 11, 1988 (53 FR 39679). No request for hearing or petition for leave to intervene was filed following this notice.

Therefore, the Commission concludes that there are no significant radiological or nonradiological environmental impacts associated with the proposed amendments.

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 amendments. 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 related to the operation of the Donald C. Cook Nuclear Plant, Units 1 and 2, dated August 1973.

Agencies and Person Consulted:

The Commission's staff reviewed the licensee's request and did not consult other agencies or persons.

FINDINGS OF NO SIGNIFICANT IMPACT

The Commission has determined not to prepare an environmental impact statement for the proposed license amendments.

Based upon the foregoing environmental assessment, we conclude that the proposed action will not have a significant effect on the quality of the human environment.

For further details with respect to this action, see the application for amendments dated August 19, 1988, which is available for public inspection at the Commission's Public Document Room, 2120 L Street, NW., Washington, DC, and at the Maude Preston Palenski Memorial Library, 500 Market Street, St. Joseph, Michigan 49085.

Dated at Rockville, Maryland this 8<sup>th</sup> day of November 1988.

FOR THE NUCLEAR REGULATORY COMMISSION

*Theodore R. Quay*

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