

October 16, 1997

Mr. E. E. Fitzpatrick, Vice President
Indiana Michigan Power Company
Nuclear Generation Group
500 Circle Drive
Buchanan, MI 49107

SUBJECT: DONALD C. COOK NUCLEAR PLANT, UNITS 1 AND 2 - NOTICE OF
CONSIDERATION OF ISSUANCE OF AMENDMENT TO FACILITY OPERATING
LICENSE, PROPOSED NO SIGNIFICANT HAZARDS CONSIDERATION
DETERMINATION, AND OPPORTUNITY FOR A HEARING (TAC NOS. M99742
AND M99743)

Dear Mr. Fitzpatrick:

Enclosed is a copy of a "Notice of Consideration of Issuance of Amendment to Facility
Operating License, Proposed No Significant Hazards Consideration Determination, and
Opportunity for a Hearing" related to your request for a license amendment dated
October 8, 1997 (AEP:NRC:0900K). This amendment would revise the technical
specifications (TS) to increase both the minimum required ice mass per ice basket and the
total minimum required ice mass, and to charge the bases of the TS. The change in the
bases is considered to be an unreviewed safety question.

This notice is being forwarded to the Office of the Federal Register for publication.

Sincerely,

Original signed by:

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

Docket Nos. 50-315 and 50-316

Enclosure: Notice

cc w/encl: See next page

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NAME	JHickman <i>9732</i>		CBoyle <i>CAF</i>					
DATE	10/15/97		10/15/97					

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E. E. Fitzpatrick
Indiana Michigan Power Company

Donald C. Cook Nuclear Plant
Unit Nos. 1 and 2

cc:

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Lansing, MI 48909-8130

UNITED STATES NUCLEAR REGULATORY COMMISSIONINDIANA MICHIGAN POWER COMPANYDOCKET NOS. 50-315 AND 50-316NOTICE OF CONSIDERATION OF ISSUANCE OF AMENDMENT TO
FACILITY OPERATING LICENSE, PROPOSED NO SIGNIFICANT HAZARDS
CONSIDERATION DETERMINATION, AND OPPORTUNITY FOR A HEARING

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

The proposed amendment would change the D.C. Cook technical specifications (TS) to increase both the minimum required ice mass per ice basket and the total minimum required ice mass, and to change the bases of the TS. The change in the bases is considered to be an unreviewed safety question.

The licensee has requested that the proposed amendment be reviewed on an exigent basis. Section 50.91(a)(6)(vi) of Title 10 of the *Code of Federal Regulations* requires the licensee to explain the exigency and why the licensee cannot avoid it. The licensee's explanation is provided below:

During the recent architect engineer inspection conducted at Cook Nuclear Plant [concluded September 12, 1997], it was determined that, because of instrument uncertainties, the switchover to the recirculation mode might occur before a sufficient volume of RWST [refueling water storage tank] water had been injected into the containment. This, when considered with our lower containment design that allows some containment spray flow to become trapped in the dead ended annulus region, raised a concern as to whether the limiting vortexing height requirements for the RHR [residual heat removal] and CTS [containment spray] pumps could be met throughout the transient. As a result, evaluations for transient sump level for small break loss-of-coolant

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accident (SBLOCA) and large break loss-of-coolant accident were performed. The limiting evaluation is the SBLOCA, due to its lower RCS and accumulator mass release. A calculation performed for SBLOCA indicates that it is necessary to credit more of the available ice condenser ice mass than currently listed in the T/S [technical specifications].

The amount of ice presently taken credit for (per basket and total) in our current T/S minimum ice weights is less than what is needed to maintain the sump level above 602' 10". Based on a model test in 1977, water level of 602' 10" is sufficient to prevent pump vortexing at maximum safeguards flow. The proposed changes to the T/S will take credit for more of the available ice to provide reasonable assurance that sufficient water to maintain 602' 10" elevation is achieved.

On September 18, 1997, our submittal AEP:NRC:1260G1 was sent to the NRC, providing a discussion of the actions we are taking to address technical issues identified by the recently completed architect engineer team inspections. We are anticipating the commencement of startup activities in several weeks, and respectfully request the NRC's review and approval on an exigent basis.

The licensee was unable to make a more timely application because it was not determined until the recent inspection (September 1997) that the amount of ice in the current TS minimum ice weights is less than what is needed to maintain the sump level above 602' 10". The NRC has determined that the licensee used its best efforts to make a timely application for the proposed changes and that exigent circumstances do exist and were not the result of any intentional delay on the part of the licensee. The Donald C. Cook Nuclear Plant, Units 1 and 2, cannot restart until the proposed amendments have been approved by the NRC.

Pursuant to 10 CFR 50.91(a)(6), for amendments to be granted under exigent circumstances, the NRC staff must determine that the amendment request involves no significant hazards consideration. Under the Commission's regulations in 10 CFR 50.92, this means that operation of the facility in accordance with the proposed amendment would not (1) involve a significant increase in the probability or consequences of an accident previously

evaluated, or (2) create the possibility of a new or different kind of accident from any accident previously evaluated, or (3) involve a significant reduction in a margin of safety. As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

Criterion 1

This amendment request does not involve a significant increase in the probability or consequences of an accident previously evaluated. The change increases the minimum ice weight requirements, ensuring that there will be sufficient water (i.e., a minimum sump level of 602' 10") in the recirculation sump from the time of switchover until an equilibrium level is reached. This will provide adequate sump level for the RHR [Residual Heat Removal] and CTS [Containment Spray] pumps to function properly, and provide sufficient flow to meet accident requirements.

Criterion 2

The proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated. This change increases the required minimum amount of ice in the ice condenser. It does not alter any other physical characteristics of the ice baskets, nor does it change the ice condenser's function. No known failure mechanisms are introduced by this change.

Criterion 3

This proposed change does not involve a significant reduction in a margin of safety. The change increases the minimum heat absorbing capability of the ice condenser, and ensures that there will be a sufficient quantity of melted ice to maintain the desired minimum sump level of 602' 10" from the time of switchover. This will provide an adequate sump level for the RHR and CTS pumps following switchover to the recirculation phase.

The reduction in the allowance for ice sublimation does not significantly reduce the margin of safety. The original allowance was conservatively estimated to be ten times the design value. At the time this allowance was made, there was no data for determining the actual sublimation rate.

Data taken since 1984 has shown that the average measured sublimation rate is 2.31% per eighteen month cycle for unit 1, and 2.68% for unit 2. Both historical values are less than the 5% sublimation rate used in setting the T/S minimum ice weight. Based on this historical data, there is reasonable

assurance that the analysis assumptions for available ice mass will be satisfied.

The revision to the T/S 3/4.5.5 basis provides clarification that water sources in addition to the water in the RWST are considered in determining the water inventory for the recirculation sump. This clarification is consistent with FSAR appendix N, section 13.1 through section 13.25, question 23, and appendix Q, unit 2 question 212.29. The answers to these questions document that melted ice, RCS inventory, and RWST inventory were considered as contributing to the volume of water in the recirculation sump.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

The Commission is seeking public comments on this proposed determination. Any comments received within 14 days after the date of publication of this notice will be considered in making any final determination.

Normally, the Commission will not issue the amendment until the expiration of the 14-day notice period. However, should circumstances change during the notice period such that failure to act in a timely way would result, for example, in derating or shutdown of the facility, the Commission may issue the license amendment before the expiration of the 14-day notice period, provided that its final determination is that the amendment involves no significant hazards consideration. The final determination will consider all public and State comments received. Should the Commission take this action, it will publish in the FEDERAL REGISTER a notice of issuance and provide for opportunity for a hearing after issuance. The Commission expects that the need to take this action will occur very infrequently.

Written comments may be submitted by mail to the Chief, Rules and Directives Branch, Division of Administrative Services, Office of Administration, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and should cite the publication date and page number of this FEDERAL REGISTER notice. Written comments may also be delivered to Room 6D22, Two White Flint North, 11545 Rockville Pike, Rockville, MD, from 7:30 a.m. to 4:15 p.m. Federal workdays. Copies of written comments received may be examined at the Commission's Public Document Room, located at the Gelman Building, 2120 L Street, NW., Washington, DC.

The filing of requests for hearing and petitions for leave to intervene is discussed below.

By November 21, 1997, the licensee may file a request for a hearing with respect to issuance of the amendment to the subject facility operating license and any person whose interest may be affected by this proceeding and who wishes to participate as a party in the proceeding must file a written request for a hearing and a petition for leave to intervene. Requests for a hearing and a petition for leave to intervene shall be filed in accordance with the Commission's "Rules of Practice for Domestic Licensing Proceedings" in 10 CFR Part 2. Interested persons should consult a current copy of 10 CFR 2.714, which is available at the Commission's Public Document Room, located at the Gelman Building, 2120 L Street, NW., Washington, DC, and at the local public document room located at the Maud Preston Palenske Memorial Library, 500 Market Street, St. Joseph, Michigan 49085. If a request for a hearing or petition for leave to intervene is filed by the above date, the Commission or an Atomic Safety and Licensing Board, designated by the Commission or by the Chairman of the Atomic Safety and Licensing Board Panel, will rule on the request and/or petition; and the

Secretary or the designated Atomic Safety and Licensing Board will issue a notice of hearing or an appropriate order.

As required by 10 CFR 2.714, a petition for leave to intervene shall set forth with particularity the interest of the petitioner in the proceeding, and how that interest may be affected by the results of the proceeding. The petition should specifically explain the reasons why intervention should be permitted with particular reference to the following factors: (1) the nature of the petitioner's right under the Act to be made party to the proceeding; (2) the nature and extent of the petitioner's property, financial, or other interest in the proceeding; and (3) the possible effect of any order which may be entered in the proceeding on the petitioner's interest. The petition should also identify the specific aspect(s) of the subject matter of the proceeding as to which petitioner wishes to intervene. Any person who has filed a petition for leave to intervene or who has been admitted as a party may amend the petition without requesting leave of the Board up to 15 days prior to the first prehearing conference scheduled in the proceeding, but such an amended petition must satisfy the specificity requirements described above.

Not later than 15 days prior to the first prehearing conference scheduled in the proceeding, a petitioner shall file a supplement to the petition to intervene which must include a list of the contentions which are sought to be litigated in the matter. Each contention must consist of a specific statement of the issue of law or fact to be raised or controverted. In addition, the petitioner shall provide a brief explanation of the bases of the contention and a concise statement of the alleged facts or expert opinion which support the contention and on which the petitioner intends to rely in proving the contention at the hearing. The petitioner must also provide references to those specific sources and documents of which the petitioner

is aware and on which the petitioner intends to rely to establish those facts or expert opinion. Petitioner must provide sufficient information to show that a genuine dispute exists with the applicant on a material issue of law or fact. Contentions shall be limited to matters within the scope of the amendment under consideration. The contention must be one which, if proven, would entitle the petitioner to relief. A petitioner who fails to file such a supplement which satisfies these requirements with respect to at least one contention will not be permitted to participate as a party.

Those permitted to intervene become parties to the proceeding, subject to any limitations in the order granting leave to intervene, and have the opportunity to participate fully in the conduct of the hearing, including the opportunity to present evidence and cross-examine witnesses.

If the amendment is issued before the expiration of the 30-day hearing period, the Commission will make a final determination on the issue of no significant hazards consideration. If a hearing is requested, the final determination will serve to decide when the hearing is held.

If the final determination is that the amendment request involves no significant hazards consideration, the Commission may issue the amendment and make it immediately effective, notwithstanding the request for a hearing. Any hearing held would take place after issuance of the amendment.

If the final determination is that the amendment request involves a significant hazards consideration, any hearing held would take place before the issuance of any amendment.

A request for a hearing or a petition for leave to intervene must be filed with the Secretary of the Commission, Attention: Rulemakings and Adjudications Staff, U.S. Nuclear

Regulatory Commission, Washington, DC 20555-0001, or may be delivered to the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC, by the above date. A copy of the petition should also be sent to the Office of the General Counsel, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and to Gerald Chamoff, Esquire; Shaw, Pittman, Potts and Trowbridge; 2300 N Street, NW., Washington, DC 20037, attorney for the licensee.

Nontimely filings of petitions for leave to intervene, amended petitions, supplemental petitions and/or requests for hearing will not be entertained absent a determination by the Commission, the presiding officer, or the presiding Atomic Safety and Licensing Board that the petition and/or request should be granted based upon a balancing of the factors specified in 10 CFR 2.714(a)(1)(i)-(v) and 2.714(d).

For further details with respect to this action, see the application for amendment dated October 8, 1997, which is available for public inspection at the Commission's Public Document Room, located at the Gelman Building, 2120 L Street, NW., Washington, DC, 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 16th day of October 1997.

FOR THE NUCLEAR REGULATORY COMMISSION



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