July 9, 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 - REQUEST FOR ADDITIONAL INFORMATION RE: POWER UPRATE PROGRAM (TAC NOS. M96363 AND M96364)

Dear Mr. Fitzpatrick:

The staff is reviewing your submittal dated July 11, 1996. We will require additional information to complete our review. Please respond to the enclosed Request for Additional Information within 60 days.

Please contact me at (301) 415-3017 if you have any questions on the above.

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: Request for Additional Information

cc w/encl: See next page

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OFFICE	PM:PD33	E	LA:PD33	E
NAME	JHickman		CBoyle	
DATE	7/9/97		7/8/97	

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cc:

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Mr. Steve J. Brewer
Indiana Michigan Power Company
Nuclear Generation Group
500 Circle Drive
Buchanan, Michigan 49107

REQUEST FOR ADDITIONAL INFORMATION FOR
TECHNICAL SPECIFICATION CHANGE TO REFLECT POWER UPRATE
DONALD C. COOK NUCLEAR PLANT, UNITS 1 AND 2
DOCKET NOS. 50-315 AND 50-316
(TAC NOS. M96363 AND M96364)

1. In Section 2.0 of Reference 2, you indicated that WCAP-11902 and Supplement were used as the basis for the evaluation of the Unit 2 operation at a core power level of 3588 MWt. However, WCAP-11902 licensing report was reviewed and approved, by the staff, for D. C. Cook Unit 1 operating at 3250 MWt. Clarify whether the Supplement to WCAP-11902, entitled, "Rerated Power and Revised Temperature and Pressure Operation for Cook Nuclear Plant Units 1 and 2 Licensing Report," was reviewed and approved by the staff for application at Cook Nuclear Plant (CNP). If not, state the basis of applying these two previous evaluations for CNP operation at a power level of 3588 MWt. Also provide a table of comparison for all performance parameters between the proposed Unit 2 uprate rate and the previous rerated program.

2. Clarify whether the rerating analyses of the pressure transients and the postulated loss-of-coolant accident (LOCA) include the proposed pressurizer safety and relief valve tolerance ±3%, and the previously NRC-approved main steam safety and relief valves tolerance of ±3%. If not, state how the rerating analyses applies to the proposed Unit 2 power uprate.

3. Discuss the operability of safety-related mechanical components (i.e., valves and pumps) affected by the power uprate to ensure that the performance specifications and technical specification requirements (e.g., flow rate, close and open times) will be met for the proposed power uprate. Confirm that safety-related motor-operated valves (MOVs) will be capable of performing their intended function(s) following the power uprate including such affected parameters as fluid flow, temperature, pressure and differential pressure, and ambient temperature conditions. Identify mechanical components for which operability at the uprated power level could not be confirmed.

4. In reference to Sections 3.11.2 and 3.11.3 of Reference 2 (WCAP-14489), provide the maximum calculated stresses and Cumulative Usage Factors at the most limiting locations and components of the reactor vessel and internals, steam generator, reactor coolant pump, pressurizer, and control rod drive mechanism. Also provide the allowable code limits, the code, and code edition used in the evaluation for the power uprate. If different from the code of record, provide the necessary justification.

5. In Table 2.1-1 of Reference 1, the current core power limit is 3391 MWt thermal. On page 2 of Appendix 1 to Reference 1, the group one proposed changes have the current rated core power level of 3411 MWt. Clarify the difference.

ENCLOSURE

6. Discuss the analytical methodology and assumptions used in evaluating pipe supports, nozzles, penetrations, guides, valves, pumps, heat exchangers and support anchors at the power uprate conditions. Were the analytical computer codes used in the evaluation different from those used in the original design-basis analysis? If so, identify the new codes and provide justification for using the new codes and state how the codes were qualified for such applications.

7. Discuss the effect of flow induced vibration on the steam generator U-bend tubes and the heat exchanger in consideration of high flow rate required for the power uprate.

REFERENCES:

1. Letter (AEP:NRC:1223) from American Electric Power to the NRC, "Donald C. Cook Nuclear Plant, Units 1 and 2, License Nos. DPR-58 and DPR-74, Proposed License and Technical Specification Changes, and Increase Unit 2 Rated Thermal Power," dated July 11, 1996, and attachments.

2. Westinghouse Electric Corporation, WCAP-14489, Revision 1, "Donald C. Cook Nuclear Plant Unit 2 3600 MWt Uprating Program Licensing Report," dated May 1996.