

May 13, 2004

Mr. Mano K. Nazar  
American Electric Power  
Senior Vice President and Chief Nuclear Officer  
Indiana Michigan Power Company  
Nuclear Generation Group  
500 Circle Drive  
Buchanan, MI 49107

SUBJECT: DONALD C. COOK NUCLEAR PLANT, UNITS 1 AND 2 - EXEMPTION  
REQUEST TO SUPPORT THE USE OF FRAMATOME ANP, INCORPORATED  
FUEL (TAC NOS. MC2720 AND MC2721)

Dear Mr. Nazar:

The purpose of this letter is to advise you that the Nuclear Regulatory Commission (NRC) staff may not meet your requested schedule for your exemption request from the requirements of Title 10 of the *Code of Federal Regulations* (10 CFR) Section 70.24.

By letter dated April 6, 2004 (ADAMS Accession No. ML040990555), you applied for amendments to the Donald C. Cook Nuclear Plant Units 1 and 2, Operating License Nos. DPR-58 and DPR-74 to use Framatome ANP, Inc. fuel. The proposed change would revise Technical Specifications design features for fuel assemblies and new fuel storage criticality limitations. In addition, you requested NRC approval of the criticality analysis methodology supporting the spent fuel storage rack and new fuel storage rack in accordance with 10 CFR 50.59(c)(2)(viii). You also requested exemptions to 10 CFR 50.44, 10 CFR 50.46, and 10 CFR Part 50 Appendix K to use M5 advanced alloy cladding as well as an exemption to 10 CFR 70.24 regarding criticality monitors.

Regarding the exemption for 10 CFR 70.24, the NRC staff has concerns about your qualitative approach, that is based on comparisons between Westinghouse, Holtec, and Framatome analyses. For example, Framatome utilized previously approved spent fuel pool criticality analyses done by Westinghouse and Holtec, which were based on Westinghouse fuel. Framatome's justification for this approach is that its fuel is so similar in design such that a new base case  $K_{\text{eff}}$  calculations is not necessary. The specific "reactivity equivalencing" methodology employed by Framatome will require extensive NRC staff review time to confirm the Framatome methodology is conservative and acceptable.

M. Nazar

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Based on this information, the NRC staff may not be able to complete its review of your 10 CFR 70.24 exemption by your requested December 15, 2004, date.

Sincerely,

*/RA/*

John G. Lamb, Project Manager, Section 1  
Project Directorate III  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket Nos. 50-315 and 50-316

cc: See next page

M. Nazar

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Based on this information, the NRC staff may not be able to complete its review of your 10 CFR 70.24 exemption by your requested December 15, 2004, date.

Sincerely,

*/RA/*

John G. Lamb, Project Manager, Section 1  
Project Directorate III  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket Nos. 50-315 and 50-316

cc: See next page

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Donald C. Cook Nuclear Plant, Units 1 and 2

cc:

Regional Administrator, Region III  
U.S. Nuclear Regulatory Commission  
801 Warrenville Road  
Lisle, IL 60532-4351

Attorney General  
Department of Attorney General  
525 West Ottawa Street  
Lansing, MI 48913

Township Supervisor  
Lake Township Hall  
P.O. Box 818  
Bridgman, MI 49106

U.S. Nuclear Regulatory Commission  
Resident Inspector's Office  
7700 Red Arrow Highway  
Stevensville, MI 49127

David W. Jenkins, Esquire  
Indiana Michigan Power Company  
One Cook Place  
Bridgman, MI 49106

Mayor, City of Bridgman  
P.O. Box 366  
Bridgman, MI 49106

Special Assistant to the Governor  
Room 1 - State Capitol  
Lansing, MI 48909

Mr. John A. Zwolinski  
Director, Design Engineering and  
Regulatory Affairs  
Indiana Michigan Power Company  
Nuclear Generation Group 500 Circle Drive  
Buchanan, MI 49107

Michigan Department of Environmental  
Quality  
Waste and Hazardous Materials Div.  
Hazardous Waste & Radiological  
Protection Section  
Nuclear Facilities Unit  
Constitution Hall, Lower-Level North  
525 West Allegan Street  
P. O. Box 30241  
Lansing, MI 48909-7741

David A. Lochbaum  
Nuclear Safety Engineer  
Union of Concerned Scientists  
1707 H Street NW, Suite 600  
Washington, DC 20036

Michael J. Finissi, Plant Manager  
Indiana Michigan Power Company  
Nuclear Generation Group  
One Cook Place  
Bridgman, MI 49106

Mr. Joseph N. Jensen, Site Vice President  
Indiana Michigan Power Company  
Nuclear Generation Group  
One Cook Place  
Bridgman, MI 49106