

**EXXON NUCLEAR COMPANY, Inc.**

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January 13, 1984

JCC:007:84

Dr. Cecil O. Thomas, Chief  
Standardization & Special Projects Branch  
Division of Licensing  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

SUBJECT: XN-NF-82-06(P), "Qualification of Exxon Nuclear Fuel for Extended Burnup"

- Ref.: (1) Letter, C.O. Thomas (NRC) to R.B. Stout (ENC), "Request Number 1 for Additional Information on XN-NF-82-06(P) Revision 1," dated March 31, 1983.
- (2) Letter, G.F. Owsley (ENC) to J.R. Miller (NRC), dated March 11, 1982 (GFO:017:82).
- (3) Letter, D. Musolf (Northern States Power) to Director, NRR, dated August 15, 1983.
- (4) Letter, J.R. Miller (NRC) to D.M. Musolf (Northern States Power), dated September 27, 1983.
- (5) Letter, J.C. Chandler (ENC) to C.O. Thomas (NRC), dated November 11, 1983 (JCC:114:83).

Dear Dr. Thomas:

By the Reference (1) letter, the NRC Staff asked Exxon Nuclear to provide additional information relative to high burnup qualification for Exxon Nuclear fuel as submitted by the Reference (2) letter. The requested information concerned the assessment of the potential radiological consequences associated with high burnup operation. The purpose of this letter is to identify Exxon Nuclear's response to that request.

Subsequent to that request, ENC developed and issued topical report XN-NF-719(P), "Assessment of Potential Radiological Consequences for High Exposure Fuel," to address this issue. This radiological assessment report, which contains a sample problem based on the Prairie Island nuclear plants, was docketed by Northern States Power in support of extended burnup operation by the Reference (3) letter. The results of the NRC Staff's review were documented in the Reference (4) letter.

In order to resolve the issue of applicability of the methodology reported in XN-NF-719(P) to other plants, ENC submitted the report for generic review and approval by the Reference (5) letter. Although the submission

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AFFILIATE OF EXXON CORPORATION

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C. O. Thomas

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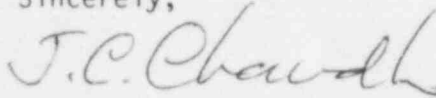
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letter requested that the report be reviewed in conjunction with XN-NF-82-06(P), no specific mention was made of the outstanding request for additional information.

Exxon Nuclear's response to Request Number 1 for Additional Information on XN-NF-82-06(P) is contained in XN-NF-719(P), which describes the methods used by ENC to assure that the potential radiological consequences associated with high burnup fuel remain within acceptable limits.

If you have any questions regarding this information, please feel free to contact me, telephone (509) 375-8539.

Sincerely,



J. C. Chandler, Lead Engineer  
Reload Fuel Licensing

cc: Mr. David Moran (NRC)  
Mr. D. M. Musolf (NSP)