

March 02, 2006

Mr. R. T. Ridenoure
Vice President - Chief Nuclear Officer
Omaha Public Power District
Fort Calhoun Station FC-2-4 Adm.
Post Office Box 550
Fort Calhoun, NE 68023-0550

SUBJECT: FORT CALHOUN STATION, UNIT 1 - REQUEST FOR ADDITIONAL
INFORMATION RELATED TO THE USE OF M5 FUEL CLADDING (TAC
NO. MC8096)

Dear Mr. Ridenoure:

By letter dated August 11, 2005, Omaha Public Power District (OPPD/the licensee) submitted a license amendment request for the Fort Calhoun Station, Unit 1. The licensee requested a technical specification change that would permit the use of AREVA (Framatome ANP) M5 advanced alloy for fuel rod cladding and other structural components in the reactor core, beginning with Refueling Cycle 24.

The Nuclear Regulatory Commission (NRC) staff has completed a preliminary review of OPPD's submittal. The NRC staff has determined that additional information is needed to complete our review. A request for additional information (RAI) is enclosed. This request was discussed with Thomas Byrne of your staff on February 9, 2006, and it was agreed that a response would be provided within 30 days of receipt of this letter.

If you have any questions, please contact me at (301) 415-1445.

Sincerely,

/RA/

Alan B. Wang, Project Manager
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-285

Enclosure: RAI

cc w/encl: See next page

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REQUEST FOR ADDITIONAL INFORMATION
REGARDING THE USE OF M5 FUEL CLADDING
OMAHA PUBLIC POWER DISTRICT
FORT CALHOUN STATION
DOCKET NO. 50-285

By letter dated August 11, 2005, Omaha Public Power District (OPPD/the licensee) submitted a license amendment request for the Fort Calhoun Station, Unit 1. The licensee requested a technical specification change that would permit the use of AREVA (Framatome ANP) M5 advanced alloy for fuel rod cladding and other structural components in the reactor core, beginning with Refueling Cycle 24. The Nuclear Regulatory Commission (NRC) staff has completed a preliminary review of OPPD's submittal. The NRC staff has determined that the following additional information is needed to complete our review.

1. Provide the calculated peak clad temperatures for both the M5 cladding (Mark-B-HTP fuel design) and the co-resident Zircaloy-4 cladding.
2. Does the loss-of-coolant accident (LOCA) Evaluation Model consider both the pre-LOCA and LOCA oxidation in demonstrating compliance with 10 CFR 50.46 requirements?
3. Is the non-M5 fuel cladding oxidation bounded by a number which is less than or equal to the 10 CFR 50.46 acceptance criteria of 17 percent?

Ft. Calhoun Station, Unit 1

cc:

Winston & Strawn

ATTN: James R. Curtiss, Esq.

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Chairman

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Mr. John Hanna, Resident Inspector

U.S. Nuclear Regulatory Commission

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Manager - Nuclear Licensing

Omaha Public Power District

Fort Calhoun Station FC-2-4 Adm.

P.O. Box 550

Fort Calhoun, NE 68023-0550

Mr. Daniel K. McGhee

Bureau of Radiological Health

Iowa Department of Public Health

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321 East 12th Street

Des Moines, IA 50319

January 2006