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Omaha NE 68102-2247

April 30, 2004  
LIC-04-0058

U.S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, D.C. 20555

- References:
1. Docket 50-285
  2. XN-NF-82-49(P)(A), Supplement 1, "Exxon Nuclear Company Evaluation Model Revised EXEM PWR Small Break Model," Revision 1, December 1994
  3. EMF-2087(P)(A), "SEM/PWR-98: ECCS Evaluation Model for PWR LBLOCA Applications," Revision 0, June 1999
  4. Letter from OPPD (R.T. Ridenoure) to NRC (Document Control Desk), "Annual Report for 2001 Loss of Coolant Accident (LOCA)/Emergency Core Cooling System (ECCS) Models Pursuant to 10 CFR 50.46," dated April 30, 2002 (LIC-02-0054)
  5. Letter from OPPD (R. T. Ridenoure) to NRC (Document Control Desk), "Annual Report for 2002 Loss of Coolant Accident (LOCA)/Emergency Core Cooling System (ECCS) Models Pursuant to 10 CFR 50.46," dated April 11, 2003 (LIC-03-0056)

**SUBJECT: Annual Report for 2003 Loss of Coolant Accident (LOCA)/Emergency Core Cooling System (ECCS) Models Pursuant to 10 CFR 50.46**

In accordance with 10 CFR 50.46(a)(3)(ii), the Omaha Public Power District (OPPD) is submitting the annual 10 CFR 50.46 summary report for 2003. This summary report updates all identified changes or errors in the LOCA/ECCS codes, methods, and applications used by Areva (formerly Framatome ANP) to model Fort Calhoun Station Unit No. 1 (FCS). References 2 and 3, respectively, describe the Small Break (SB) and Large Break (LB) LOCA analysis methodology used by Areva for the FCS Analysis of Record.

OPPD has received the 2003 Areva 10 CFR 50.46 Annual Notification Report for the SB and LB LOCA Analyses that are subject to the reporting requirements of 10 CFR 50.46.

For 2003, there were no new Small Break LOCA Analysis Peak Clad Temperature (PCT) 10 CFR 50.46 Model Assessment errors. Attachment 1 provides the 2003 Small Break Peak Clad Temperature Margin Utilization Summary for FCS, which is unchanged from the 2001 and 2002 Annual Reports (References 4 and 5). The value of the PCT remains at 1864 °F.

For 2003, there were no new Large Break LOCA Analysis Peak Clad Temperature (PCT) 10 CFR 50.46 Model Assessment errors. Attachment 2 provides the 2003 Large Break Peak Clad Temperature Margin Utilization Summary for FCS, which is unchanged from the 2002 Annual Report (Reference 5). The value of the PCT remains at 1956 °F.

In summary, the FCS PCT values for Small and Large Break LOCAs remain less than the 10 CFR 50.46(b) (1) acceptance criterion of 2200 °F.

If you should have any questions, please contact Dr. Richard Jaworski at (402) 533-6833. No commitments are made to the NRC in this letter.

Sincerely,



R. T. Ridenoure  
Vice President  
/RTR/MLE/mle

Attachments:

1. Fort Calhoun Station Small Break LOCA Peak Clad Temperature Margin Utilization Summary
2. Fort Calhoun Station Large Break LOCA Peak Clad Temperature Margin Utilization Summary

c: B. S. Mallett, NRC Regional Administrator, Region IV  
A. B. Wang, NRC Project Manager  
J. G. Kramer, NRC Senior Resident Inspector

**Attachment 1  
Fort Calhoun Station Small Break LOCA  
Peak Clad Temperature Margin Utilization Summary**

<b>LICENSING BASIS</b>	<u><b>Clad Temp (°F)</b></u>
Analysis of Record	1865
<b>MARGIN ALLOCATIONS (<math>\Delta</math>PCT)</b>	
<b>A. Prior Permanent ECCS Model Assessments</b>	<b>-1</b>
<b>B. 2003 10 CFR 50.46 Model Assessments         (Permanent Assessments of PCT Margin)</b>	<b>0</b>
<b>LICENSING BASIS PCT + MARGIN ALLOCATIONS</b>	<b>1864</b>

**Attachment 2**  
**Fort Calhoun Station Large Break LOCA**  
**Peak Clad Temperature Margin Utilization Summary**

<b>LICENSING BASIS</b>	<u>Clad Temp (°F)</u>
Analysis of Record	<b>1956</b>
 <b>MARGIN ALLOCATIONS (<math>\Delta</math>PCT)</b>	
A. Prior Permanent ECCS Model Assessments	<b>0</b>
B. 2003 10 CFR 50.46 Model Assessments (Permanent Assessments of PCT Margin)	<b>0</b>
 <b>LICENSING BASIS PCT + MARGIN ALLOCATIONS</b>	
	<b>1956</b>