

June 16, 2005

Mr. Christopher M. Crane, President  
and Chief Nuclear Officer  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, IL 60555

SUBJECT: DRESDEN NUCLEAR POWER STATION, UNITS 2 AND 3, AND QUAD CITIES  
NUCLEAR POWER STATION, UNITS 1 AND 2 - REQUEST FOR AMENDMENTS  
(TAC NOS. MC5160, MC5161, MC5162 AND MC5163)

Dear Mr. Crane:

Exelon Generation Company, LLC (EGC) submitted an amendment request on November 4, 2004, that proposed to revise the pressure and temperature limit curves for 54 effective full-power years to support the 20 year license extension for both Dresden Nuclear Power Station, Units 2 and 3, and Quad Cities Nuclear Power Station, Units 1 and 2. On March 8, 2005, EGC supplemented this amendment request with additional information in response to questions from the NRC staff. After review of this additional information, in the area of neutron fluence, the staff determined that further information is needed. Additional questions, contained in the enclosed request for additional information (RAI), were provided to your staff via electronic mail on March 30 and May 17, 2005. On April 18 and June 9, 2005, the NRC staff held conference calls with your staff to discuss these RAI questions. We request that you provide a response to the RAI questions within 30 days of receipt of this letter.

Should you or your staff have any questions, please let me know. I can be reached at 301-415-2277 or by e-mail: [mxh@nrc.gov](mailto:mxh@nrc.gov).

Sincerely,

**/RAI/**

Maitri Banerjee, Project Manager, Section 2  
Project Directorate III  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket Nos. 50-237, 50-249, 50-254,  
and 50-265

Enclosure: As stated

cc w/encls: See next page

June 16, 2005

Mr. Christopher M. Crane, President  
and Chief Nuclear Officer  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, IL 60555

SUBJECT: DRESDEN NUCLEAR POWER STATION, UNITS 2 AND 3, AND QUAD CITIES  
NUCLEAR POWER STATION, UNITS 1 AND 2 - REQUEST FOR AMENDMENTS  
(TAC NOS. MC5160, MC5161, MC5162 AND MC5163)

Dear Mr. Crane:

Exelon Generation Company, LLC (EGC) submitted an amendment request on November 4, 2004, that proposed to revise the pressure and temperature limit curves for 54 effective full-power years to support the 20 year license extension for both Dresden Nuclear Power Station, Units 2 and 3, and Quad Cities Nuclear Power Station, Units 1 and 2. On March 8, 2005, EGC supplemented this amendment request with additional information in response to questions from the NRC staff. After review of this additional information, in the area of neutron fluence, the staff determined that further information is needed. Additional questions, contained in the enclosed request for additional information (RAI), were provided to your staff via electronic mail on March 30 and May 17, 2005. On April 18 and June 9, 2005, the NRC staff held conference calls with your staff to discuss these RAI questions. We request that you provide a response to the RAI questions within 30 days of receipt of this letter.

Should you or your staff have any questions, please let me know. I can be reached at 301-415-2277 or by e-mail: mxb@nrc.gov.

Sincerely,  
/RA/

Maitri Banerjee, Project Manager, Section 2  
Project Directorate III  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket Nos. 50-237, 50-249, 50-254,  
and 50-265

Enclosure: As stated  
cc w/encls: See next page

DISTRIBUTION:

PUBLIC	LLois	GDick	MRing, RIII
PD3-2 R/F	JNakoski	MBanerjee	OGC
GSuh	HNeih	PCoates	ACRS
DLPM DPR			

**ADAMS Accession Number: ML051650190 Nrr-088**

OFFICE	PM:LPD3-2	LA:LPD3-2	DSSA:SRXB	SC:SRXB	SC:LPD3-2
NAME	MBanerjee	PCoates	LLois	GHsii for JNakoski	GSuh
DATE	6/15/05	6/15/05	6/16/05	6/16/05	6/16/05

**OFFICIAL RECORD COPY**

DRESDEN UNITS 2 AND 3 AND QUAD CITIES UNITS 1 AND 2

REQUEST FOR ADDITIONAL INFORMATION - PRESSURE AND TEMPERATURE LIMIT

CURVES FOR 54 EFFECTIVE FULL-POWER YEARS

Please provide answers to the following questions:

1. Please confirm that Exelon's submittal is neither using nor does it need to use the shroud fluence considerations as discussed in the GE report (attached to the Exelon submittal) and does not intend to gain NRC review and approval of the physical conditions (cracks) of the core shroud, such that the approval of the TS amendment request will not be taken as defacto approval of the applicable GE methodology without limitations or approval of the core shroud conditions.
2. The original estimate of the peak vessel fluence for 32 EFPYs including the power uprate for Dresden and Quad Cities was  $5.1 \times 10^{17}$  n/cmsq for all units. On September 10, 2001, in response to an amendment request, we issued a safety evaluation (ADAMS ML012250027) revising the values to  $4.4 \times 10^{17}$  n/cmsq for Dresden. A similar revision was made to  $4.5 \times 10^{17}$  n/cmsq for Quad Cities. The current submittal proposes new values of  $3.22 \times 10^{17}$  n/cmsq for Dresden and  $3.21 \times 10^{17}$  n/cmsq for Quad Cities. The differences from the original values appear to be significantly beyond the uncertainty accounted for in the GE methodology. Please explain these differences.
3. The following questions relate to the GE report attached to Exelon's March 8, 2005 letter:
  - a. Appendix A, Table A-2: are the values presented also the peak Azimuthal flux?
  - b. Appendix B, Tables B-1 and B-2: please identify the height associated with these values.
  - c. Appendix B, Tables B-3 and B-4: please identify the azimuth associated with these values.
  - d. On page 12, please correct the apparent discrepancy for the EFPY value stated for Cycle 17.

ENCLOSURE

## Dresden and Quad Cities Nuclear Power Stations

cc:

Site Vice President - Dresden Nuclear Power Station  
Exelon Generation Company, LLC  
6500 N. Dresden Road  
Morris, IL 60450-9765

Dresden Nuclear Power Station Plant Manager  
Exelon Generation Company, LLC  
6500 N. Dresden Road  
Morris, IL 60450-9765

Regulatory Assurance Manager - Dresden  
Exelon Generation Company, LLC  
6500 N. Dresden Road  
Morris, IL 60450-9765

U.S. Nuclear Regulatory Commission  
Dresden Resident Inspectors Office  
6500 N. Dresden Road  
Morris, IL 60450-9766

Chairman  
Grundy County Board  
Administration Building  
1320 Union Street  
Morris, IL 60450

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

Illinois Emergency Management  
Agency  
Division of Disaster Assistance &  
Preparedness  
110 East Adams Street  
Springfield, IL 62701-1109

Document Control Desk - Licensing  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, IL 60555

Senior Vice President - Nuclear Services  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, IL 60555

Vice President of Operations - Mid-West  
Boiling Water Reactors  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, IL 60555

Vice President - Licensing and Regulatory  
Affairs  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, IL 60555

Director - Licensing and Regulatory  
Affairs  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, IL 60555

Associate General Counsel  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, IL 60555

Manager Licensing - Dresden,  
Quad Cities and Clinton  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, IL 60555

Site Vice President - Quad Cities Nuclear  
Power Station  
Exelon Generation Company, LLC  
22710 206th Avenue N.  
Cordova, IL 61242-9740

Quad Cities Nuclear Power Station  
Plant Manager  
Exelon Generation Company, LLC  
22710 206th Avenue N.  
Cordova, IL 61242-9740

Dresden and Quad Cities Nuclear Power Stations

- 2 -

cc:

Regulatory Assurance Manager - Quad  
Cities

Exelon Generation Company, LLC  
22710 206th Avenue N.  
Cordova, IL 61242-9740

Quad Cities Resident Inspectors Office  
U.S. Nuclear Regulatory Commission  
22712 206th Avenue N.  
Cordova, IL 61242

David C. Tubbs  
MidAmerican Energy Company  
One River Center Place  
106 E. Second, P.O. Box 4350  
Davenport, IA 52808-4350

Vice President - Law and Regulatory Affairs  
MidAmerican Energy Company  
One River Center Place  
106 E. Second Street  
P.O. Box 4350  
Davenport, IA 52808

Chairman  
Rock Island County Board of Supervisors  
1504 3rd Avenue  
Rock Island County Office Bldg.  
Rock Island, IL 61201