

January 26, 2006

Mr. Christopher M. Crane
President and Chief Nuclear Officer
Exelon Nuclear
Exelon Generation Company, LLC
200 Exelon Way, KSA 3-E
Kennett Square, PA 19348

SUBJECT: PEACH BOTTOM ATOMIC POWER STATION UNIT NO. 3 - REQUEST FOR
ADDITIONAL INFORMATION (RAI) REGARDING PROPOSED PRESSURE -
TEMPERATURE CURVES (TAC NO. MC7519)

Dear Mr. Crane:

By letter dated July 6, 2005, Exelon Generation Company, LLC submitted a request for an amendment to the Technical Specifications for Peach Bottom Atomic Power Station, Unit No. 3. The amendment would allow for the extension of the use of the current Pressure - Temperature curves.

The Nuclear Regulatory Commission has determined that a response to the RAI enclosed with this letter is necessary in order for the staff to complete its review. The questions in the enclosure are similar to those that were discussed with Mr. Thomas Loomis and others of your staff during a telephone call in December 2005.

In order to complete our timely review of your amendment request, we request your response within 60 days from the date of this letter. If you have any questions, please contact Theresa Valentine at 301-415-4048.

Sincerely,

/RA/

Richard V. Guzman, Project Manager
Plant Licensng Branch I-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-277

Enclosure: As stated

cc w/encl: See next page

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REQUEST FOR ADDITIONAL INFORMATION
REGARDING PROPOSED AMENDMENT REQUEST
FOR PROPOSED PRESSURE-TEMPERATURE CURVES
PEACH BOTTOM ATOMIC POWER STATION, UNIT NO. 3
DOCKET NO. 50-277

1. Please provide the adjusted reference temperature (ART) calculations for the Peach Bottom Atomic Power Station (Peach Bottom) Unit No. 3 beltline materials at the 1/4 T locations of the reactor pressure vessel based on the calculated neutron fluence values for these locations at 32 effective full-power years.
2. Please provide the pressure-temperature (P-T) calculations over the entire temperature range for the unapproved P-T curves that were based on the K_{IC} equation in Section G-2110 of Appendix G to Section XI of the American Society of Mechanical Engineers, Boiler and Pressure Vessel Code, 2001 Edition. Provide the adjusted pressure value for each temperature value assessed, based on the limiting ART (limiting RT_{NDT}) values for the Peach Bottom Unit No. 3 reactor vessel. Include all parameters used in the calculation (e.g., K_{IT} values, temperature gradients across the wall, K_{IC} values, and any margin included for pressure and/or temperature measurement uncertainty).
3. Please confirm that the P-T curves (as provided in Peach Bottom Unit No. 3 Technical Specifications, Figure 3.4.9-1, "Temperature/Pressure Limits for Inservice Hydrostatic and Inservice Leakage Tests," Figure 3.4.9-2, "Temperature/Pressure Limits for Non-Nuclear Heatup and Cooldown Following a Shutdown," and Figure 3.4.9-3, "Temperature/Pressure Limits for Criticality," which were approved in the Peach Bottom Amendment No. 250), are based on the 1/4 T location calculations for cooldown. Also, confirm that these curves are based on the limiting ART for the 1/4 T location of the vessel.

Peach Bottom Atomic Power Station, Unit Nos. 2 and 3

cc:

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Peach Bottom Atomic Power Station, Unit Nos. 2 and 3

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