

March 7, 2011

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555-0001

Peach Bottom Atomic Power Station, Units 2 and 3
Renewed Facility Operating License Nos. DPR-44 and DPR-56
NRC Docket Nos. 50-277 and 50-278

Subject: Response to NRC Question Regarding Containment Accident Pressure Credit
for Non-LOCA Events

On February 22, 2011, the United States Nuclear Regulatory Commission (USNRC) held a public meeting with Exelon Generation Company, LLC (Exelon) regarding elimination of Containment Accident Pressure (CAP) credit for Peach Bottom Atomic Power Station (PBAPS), Units 2 and 3. The USNRC raised a question about the current PBAPS, Units 2 and 3 licensing basis including the use of CAP credit for non-LOCA events, such as Fire Safe Shutdown, Station Blackout, and Anticipated Transient Without Scram. Exelon's response to this question is attached to this letter.

There are no regulatory commitments contained in this letter.

If you have any questions or require additional information, please contact Jenna Lichtenwalner (610-765-5631).

Respectfully,



David P. Helker
Manager - Licensing & Regulatory Affairs
Exelon Generation Company, LLC

Attachment: Response to NRC Question Regarding Licensing Basis for CAP Credit for Non-LOCA Events

cc: USNRC Region I, Regional Administrator
USNRC Senior Resident Inspector, PBAPS
USNRC Project Manager, PBAPS
R. R. Janati, Bureau of Radiation Protection
S. T. Gray, State of Maryland

Response to NRC Question Regarding Licensing Basis for CAP Credit for Non-LOCA Events

Question:

Is use of Containment Accident Pressure (CAP) credit for Appendix R – Fire Safe Shutdown, Anticipated Transient Without Scram, and Station Blackout part of the current Peach Bottom licensing basis and, if so, where is this documented?

Response:

The Fire Safe Shutdown (FSSD), Anticipated Transient Without Scram (ATWS), and Station Blackout (SBO) analyses for Peach Bottom Atomic Power Station (PBAPS) require use of Containment Accident Pressure (CAP) credit. The Updated Final Safety Analysis Report (UFSAR) documents that CAP credit is required for Emergency Core Cooling System (ECCS) pumps at PBAPS, with the bounding event being the Design Basis Loss of Coolant Accident (DB-LOCA). The following referenced NRC and PBAPS correspondence describes the licensing basis for CAP credit in non-LOCA event analyses:

In Reference 1, Peach Bottom Atomic Power Station submitted a License Amendment Request (LAR) in accordance with 10 CFR 50.90 to clarify the PBAPS licensing bases regarding use of containment overpressure credit for adequate Net Positive Suction Head (NPSH) for ECCS pumps. Attachment 1 of this LAR, "Clarification on Use of Containment Overpressure for Ensuring Adequate NPSH" includes the Safety Assessment which addresses CAP credit required for non-LOCA events. It states that the DB-LOCA is the bounding event in regard to Containment Overpressure Required (COPR) and margin to Maximum Containment Pressure Available (MCPA).

In Reference 2, PBAPS provided a response to a Request for Additional Information (RAI) concerning questions raised in a telephone conversation on May 10, 2000 regarding the August 11, 1999 submittal. This response contained Calculation PM-1010 Revision 5, "RHR Pump NPSH" and PM-1013 Revision 3, "Minimum Containment Pressure Available."

In Reference 3, the USNRC issued a Safety Evaluation (SE) regarding credit of containment overpressure for NPSH calculations for ECCS pumps at PBAPS (Amendment Nos. 233 and 237 for Units 2 and 3, respectively) based on the August 11, 1999 LAR and the June 29, 2000 response to the RAI. The SE provided by the NRC addresses the non-LOCA events that were analyzed in the LAR submittal. The SE substantiates that the containment overpressure credit required for these other events is bounded by the containment overpressure credit required for the DB-LOCA event.

Following approval of the LAR, PBAPS updated UFSAR Section 5.2.4.3.2 to state that containment overpressure is credited to obtain the NPSH required for the ECCS pumps. The DB-LOCA is the limiting accident because it requires the most containment overpressure credit. Therefore, the amount of containment overpressure credit specified is based on the DB-LOCA analysis.

In Reference 4, Alternative Source Term (AST) was approved for PBAPS in License Amendments 269 and 273 for Units 2 and 3, respectively. AST revised the MCPA per Calculation PM-1013 and eliminated the Containment Overpressure License (COPL) curve from the UFSAR and design basis calculations. This was acceptable since maintaining MCPA greater than or equal to COPR assures acceptable operation of the Residual Heat Removal (RHR) and Core Spray (CS) pumps.

The above correspondence defines the current licensing basis for containment overpressure credit in the FSSD, ATWS, and SBO events for PBAPS.

References

1. Hutton, J.A., PECO Energy Company, to USNRC, "Peach Bottom Atomic Power Station, Units 2 and 3 Request for License Amendment Regarding Clarification on Use of Containment Overpressure for Ensuring Adequate NPSH," August 11, 1999.
2. Hutton, J.A., PECO Energy Company, to USNRC, "Peach Bottom Atomic Power Station, Units 2 and 3 Response to May 10, 2000, Telephone Questions Regarding PECO Energy License Amendment Request Related to Generic Letter 97-04," June 29, 2000.
3. Buckley, B.C., USNRC, to PECO Energy Company, "Peach Bottom Atomic Power Station, Unit Nos. 2 and 3 – Issuance of Amendment Regarding Crediting of Containment Overpressure for Net Positive Suction Head Calculations for Emergency Core Cooling Pumps (TAC NOS. MA6291 and MA6292)," August 14, 2000.
4. Hughey, J.D., USNRC, to Exelon Generation Company, LLC, "Peach Bottom Atomic Power Station, Units 2 and 3 – Issuance of Amendments RE: Application of Alternative Source Term Methodology (TAC NOS. MD6806 and MD6807)," September 5, 2008.