

April 8, 2016

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

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

Subject: MELLLA+ License Amendment Issuance – Request for Corrections to
Approved License Amendment Safety Evaluation

Reference: NRC letter to Exelon, "Peach Bottom Atomic Power Station, Units 2 and 3 –
Issuance of Amendments RE: Maximum Extended Load Line Limit Analysis
Plus (CAC Nos. MF4760 and MF4761)," dated March 21, 2016 (ADAMS
Accession No. ML16034A372)

In accordance with 10 CFR 50.90, Exelon Generation Company, LLC (EGC) requested amendments to Renewed Facility Operating License Nos. DPR-44 and DPR-56 for Peach Bottom Atomic Power Station (PBAPS) Units 2 and 3, respectively. Specifically, the proposed changes requested to revise the Renewed Operating Licenses to allow operation in the expanded Maximum Extended Load Line Limit Analysis Plus (MELLLA+) operating domain and the use of the Detect and Suppress – Confirmation Density (DSS-CD) stability solution.

The NRC approved this request and issued Amendment Nos. 305 and 309 to Renewed Facility Operating License Nos. DPR-44 and DPR-56 for PBAPS, Units 2 and 3, respectively (Reference). The accompanying NRC Safety Evaluation (SE) was reviewed by EGC and found to contain a few minor inaccuracies and typographical errors. Attachment 1 to this letter identifies these issues. EGC requests that NRC review and correct the identified areas and re-issue the Amendment Nos. 305 and 309 SE.

Should you have any questions concerning this letter, please contact David B. Neff at (610) 765-5631.

Respectfully,



James Barstow
Director, Licensing & Regulatory Affairs
Exelon Generation Company, LLC

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MELLLA+ SE Correction Request
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Attachment 1 NRC Final SE Comments from Exelon regarding PBAPS MELLLA+
Amendment Nos. 305 and 309

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

ATTACHMENT 1

NRC Final SE Comments from Exelon

Regarding PBAPS MELLLA+ Amendment Nos. 305 and 309

Peach Bottom Atomic Power Station - Unit 2 and Unit 3

NRC Docket Nos. 50-277 and 50-278

Attachment 1
NRC Final SE Comments from Exelon
Regarding PBAPS MELLLA+ Amendment Nos. 305 and 309

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SE Section Number	SE Page Number	Comment	Reference
3.3.9	60	Table 3.3.9-1: Last two column data or headers are reversed. The 83% rated flow and 110% rated flow column data does not align with the column headers.	PBAPS SAR (NEDC-33720P REV 0), Table 9-1, page 9-16.
3.3.9	65	SAR Sections 9.3.1 and 9.3.3 - ATWS and ATWSI, ATWS Subsection: First paragraph, second and third sentences: Replace the word "at" with "near" before "the SRV." Add the word "peak" prior to "suppression pool temperature."	PBAPS SAR (NEDC-33720P REV 0), section 9.3.1.2, page 9-12, first paragraph: "near the SRV" Page 9-13, first bullet: "peak suppression pool temperature"
3.4.4	82	Technical Evaluation: Transient Response: For clarity, the following text is recommended to be rephrased since the MELLLA+ SAR reports uncorrected Δ CPR/ICPR results for AOO. Third sentence: As seen in that evaluation, operation at lower flows in the MELLLA+ domain has a small impact (~0.03 in <u>uncorrected</u> Δ CPR/ICPR) on transient response, and the limiting initiating conditions are at 83 percent core flow for all AOOs analyzed.	PBAPS SAR (NEDC-33720P REV 0) page 9-16, Table 9-1, "AOO Event Results Summary " Note 1: For the pressurization events, the <u>uncorrected</u> Δ CPR/ICPR values are presented and for the slow transients (LFWH and RWE), Option B Δ CPR is presented.
3.4.5.5	87	Technical Evaluation, first paragraph, second sentence: "The HSBW is confirmed effective on plant- and cycle-specific bases with ODYN and TRACG ATWS calculations." This statement is not accurate. ATWS analysis is cycle independent. No cycle specific confirmation is performed with either TRACG or ODYN. The TRACG ATWS calculations are used to determine the initial overpressure response and this analysis ends before the Standby Liquid Control System (SLCS) is initiated. The ODYN ATWS calculations are used of the long analysis and include operation of the SLCS where HSBW is considered. Suggested wording: "The HSBW is confirmed effective on a plant- and fuel-design-specific basis with ODYN calculations."	PBAPS SAR (NEDC-33720P REV 0), Section 9.3.1 "Anticipated Transients without Scram," page 9-10, top paragraph, last sentence: "As required by M+LTR SER Limitation and Condition 12.23.8, the plant-specific ATWS analyses account for plant- and fuel-design-specific features including debris filters." There is no mention of cycle-specific analysis in Section 9.3.1. Section 9.3.1.1 "Anticipated Transients without Scram (Licensing Basis)," page 9-10, first paragraph, Figure 9-4, page 9-26 and Figures 9-5 and 9-6, pages 9-27 and 9-28 regarding methods used for overpressure and long-term analyses. Section 9.3.1.1, page 9-11, second paragraph regarding SLCS boron injection time. MELLLA+ LTR SE (NEDC-33006P-A REV 3), ATWS is evaluated under the heading "SUMMARY OF IMPACT OF MELLLA+ ON FUEL DEPENDENT PLANT RESPONSE," page xiii. There is no mention of cycle-specific evaluation of ATWS in this section.

Attachment 1
NRC Final SE Comments from Exelon
Regarding PBAPS MELLLA+ Amendment Nos. 305 and 309

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SE Section Number	SE Page Number	Comment	Reference
3.5.2	92	<p>Limitation and Condition 12.7:</p> <p>For clarity, the following text is recommended to be rephrased since the BSP Boundary is not applicable during the time period of transitioning to ABSP.</p> <p>From: “The DSS-CD automated BSP option will be implemented at PBAPS. If the primary OPRM DSS-CD scram is declared inoperable, manual BSP will be implemented immediately by reducing the operating power line until the automated BSP option can be activated in the DSS-CD computer.”</p> <p>To: “The DSS-CD Automated BSP option will be implemented within 12 hours at PBAPS when the DSS-CD solution is declared inoperable. During this time, Manual BSP will be implemented as specified by PBAPS TS 3.3.1.1 ACTION I.”</p>	<p>See PBAPS TS 3.3.1.1 ACTION I. ACTION I.1 - Immediately initiate action to implement the Manual Backup Stability Protection (BSP) Regions defined in the COLR. ACTION I.2 - Within 12 hours, implement the Automated BSP Scram Region using the modified APRM Simulated Thermal Power-High scram setpoints defined in the COLR.</p> <p>DSS-CD LTR (NEDC 33075P-A REV 8), Section 7.5.2 page 7-15 states when DSS-CD solution is inoperable, the Automated BSP option requires that the operator implement the automatic BSP scram option within 12 hrs. During this time, Manual BSP regions are implemented as specified in TS 3.3.1.1 ACTION I. The Manual BSP regions are defined in the COLR.</p>
3.5.2	92	<p>Limitation and Condition 12.8:</p> <p>The statement in the SE “The change of vessel effective full power years is estimated to be [[]] at 54 EFPY” is confusing. Recommend revising to: “The change in vessel peak fluence is [[]] at 54 EFPY.”</p>	<p>PBAPS SAR (NEDC-33720P REV 0), Section 3.2.1, pages 3-2 and 3-3: <u>The change to the PBAPS 54 effective full power years (EFPY) vessel internal diameter (ID) peak fluence as a result of implementing MELLLA+ is [[]]</u></p>
Appendix B	B1	<p>ACRONYM Column , ARI:</p> <p>ARI is defined as <u>Alternate</u> Rod Insertion, not Alternative Rod Injection.</p>	<p>PBAPS SAR (NEDC-33720P REV 0) Acronyms, page xi. Typographical correction.</p>