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10 CFR 50.90

October 3, 2019

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: Supplemental Response to Request for Additional Information (RAI-1) License Amendment Request to Revise Technical Specifications 3.8.4, DC Sources-Operating

References:

1. Exelon Letter to the NRC, "License Amendment Request to Revise Technical Specifications 3.8.4, DC Sources-Operating," dated June 7, 2019 (ADAMS Accession No. ML19158A312)

2. NRC Email to Exelon, "Peach Bottom Units 2 and 3 - Request for Additional Information - TSTF-500 Implementation LAR (EPID L-2018-LLA-0265)," dated August 20, 2019 (ADAMS Accession No. ML19232A175)

3. Exelon Letter to NRC, "Response to Request for Additional Information (RAI-1) License Amendment Request to Revise Technical Specifications 3.8.4, DC Sources-Operating," dated August 29, 2019 (ML19241A465)

In accordance with 10 CFR 50.90, "Application for amendment of license, construction permit, or early site permit," Exelon Generation Company, LLC (Exelon) proposed a change to the Technical Specifications (TS), Appendix A of Renewed Facility Operating License Nos. DPR-44 and DPR-56 for Peach Bottom Atomic Power Station (PBAPS), Units 2 and 3 (Reference 1). During their technical review of the application, the NRC staff identified the need for additional information (Reference 2). Exelon provided a response to the NRC on August 29, 2019 (Reference 3). Subsequently the NRC has requested further clarification to the bases for the proposed Completion Time of 12 hours for TS 3.8.4 Action B.2.

Attachment 1 to this letter provides the supplemental response to RAI-1 and proposes a new Completion Time for TS 3.8.4 Action B.2. This new Completion Time supersedes the Completion Time provided in Reference 1. Attachment 2 provides a copy of the marked up TS pages that reflect the proposed change.

Exelon has reviewed the information supporting a finding of no significant hazards consideration, and the environmental consideration, that were previously provided to the NRC in Attachment 1 of the Reference 1 letter. Exelon has concluded that the information provided in this response does not affect the bases for concluding that the proposed license amendment does not involve a significant hazards consideration under the standards set forth in 10 CFR 50.92. In addition, Exelon has concluded that the information in this response does not affect the bases for concluding that neither an environmental impact statement nor an environmental assessment needs to be prepared in connection with the proposed amendment.

There are no regulatory commitments contained in this response.

In accordance with 10 CFR 50.91, "Notice for public comment; State consultation," paragraph (b), Exelon is notifying the Commonwealth of Pennsylvania of this response by transmitting a copy of this letter to the designated State Official.

Should you have any questions concerning this response, please contact Mr. Frank J. Mascitelli at (610) 765-5512.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 3rd day of October 2019.

Respectfully,

D. P. Helker

David P. Helker
Sr. Manager, Licensing
Exelon Generation Company, LLC

Attachment: 1. Supplemental Response to Request for Additional Information (RAI-1)
2. Markup of Proposed Technical Specifications

cc:	Regional Administrator - NRC Region I	w/ attachments
	NRC Senior Resident Inspector - PBAPS	"
	NRC Project Manager, NRR - PBAPS	"
	R. R. Janati, Pennsylvania Bureau of Radiation Protection	"
	D. A. Tancabel, State of Maryland	"

ATTACHMENT 1

License Amendment Request

Peach Bottom Atomic Power Station, Units 2 and 3
Docket Nos. 50-277 and 50-278

Supplemental Response to Request for Additional Information (RAI-1)
License Amendment Request to Revise Technical Specifications 3.8.4, DC Sources-Operating

Supplemental Response to NRC Staff's
Request for Additional Information

In accordance with 10 CFR 50.90, "Application for amendment of license, construction permit, or early site permit," Exelon Generation Company, LLC (Exelon) proposed a change to the Technical Specifications (TS), Appendix A of Renewed Facility Operating License Nos. DPR-44 and DPR-56 for Peach Bottom Atomic Power Station (PBAPS), Units 2 and 3 (Reference 1). During their technical review of the application, the NRC staff identified the need for additional information (Reference 2). Exelon provided a response to the NRC on August 29, 2019 (Reference 3). Subsequently the NRC has requested further clarification to the bases for the proposed Completion Time of TS 3.8.4 Action B.2 which requires verification that the battery float current is less than or equal to 2 amps once per 12 hours.

Response

Upon further review of the initially proposed Completion Time of 12 hours, Exelon has determined that a more attainable Completion Time should be established for TS 3.8.4 Action B.2. The concern is that if implementing TS 3.8.4 Action B.1 to establish battery terminal voltage greater than or equal to the minimum established float voltage occurred late into the Completion Time of 12 hours then there might not be enough time to fully recharge the battery with the existing capacity of the alternate battery charger. To remedy this condition the following new proposed TS 3.8.4 Action B.2 Completion Time (in red italics) is proposed:

Unit 2

Condition	Required Action	Completion Time
B. One required Unit 3 battery charger on one subsystem inoperable.	B.1 Restore Unit 3 battery terminal voltage to greater than or equal to the minimum established float voltage.	12 hours
	AND	
	B.2 Verify battery float current ≤ 2 amps.	*24 hours*
		AND
		Once per 12 hours thereafter
	AND	
	B.3 Restore battery charger to OPERABLE status.	72 hours

Unit 3

Condition	Required Action	Completion Time
B. One required Unit 2 battery charger on one subsystem inoperable.	B.1 Restore Unit 2 battery terminal voltage to greater than or equal to the minimum established float voltage. AND B.2 Verify battery float current ≤ 2 amps. AND B.3 Restore battery charger to OPERABLE status.	12 hours *24 hours* *AND* *Once per 12 hours thereafter* 72 hours

Justification for Proposed new Completion Time

PBAPS Technical Evaluation 619878, "Charger Sizing for PBAPS TSTF-500 LAR," dated August 1, 2017 (Reference 4), which was prepared to support the original TSTF-500 License Amendment Request (Reference 5), established a conservative number of 90 amps for the battery discharge rate with an inoperable battery charger. The battery capacity is rated at 1800 amp-hours when fully charged. TS 3.8.4 Action B.1 Completion Time is 12 hours. Therefore, assuming a total discharge time of 12 hours, the discharge is 12x90 = 1080 amp-hours. Per Technical Evaluation 619878, it would take approximately 10.8 hours [(1080 amps X1.1)/ 110 amps] to recharge the battery conservatively with the 200-amp alternate battery charger in float charge mode. Adding additional margin of 1.2 hours then establishes a 12-hour recovery time, which will be added to the existing 12-hour Action B.1 Completion Time for a total of 24-hour Completion Time for Action B.2 (battery fully charged as indicated by float current less than or equal to two amps). The requirement for a periodic 12-hour surveillance check thereafter of battery fully charged status is maintained.

Peach Bottom performs routine battery discharge testing in accordance with the site surveillance frequency control program. Referencing the results of these tests for batteries in various stages of service life (from 2 years to 15 years) shows that recharging a battery to less than the previously used requirement of one amp could be accomplished within 12 hours. The discharge testing also documents station batteries discharged greater than the 1080 amp-hours conservatively anticipated during an actual demand. Based on the data provided from previous discharge tests, it is reasonable to assume that a station battery

discharged as a result of a worst-case discharge from an inoperable battery charger can be recharged to the minimum established terminal voltage and a float current of less than 2 amps within 12 hours.

References

1. Exelon Letter to the NRC, "License Amendment Request to Revise Technical Specifications 3.8.4, DC Sources-Operating," dated June 7, 2019 (ADAMS Accession No. ML19158A312)

2. NRC Email to Exelon, "Peach Bottom Units 2 and 3 - Request for Additional Information - TSTF-500 Implementation LAR (EPID L-2018-LLA-0265)," dated August 20, 2019 (ADAMS Accession No. ML19232A175)

3. Exelon Letter to NRC, "Response to Request for Additional Information (RAI-1) License Amendment Request to Revise Technical Specifications 3.8.4, DC Sources-Operating," dated August 29, 2019 (ADAMS Accession No. ML19241A465)

4. PBAPS Technical Evaluation 619878, "Charger Sizing for PBAPS TSTF-500 LAR," dated August 1, 2017

5. Exelon letter to NRC, "Application to Revise Technical Specifications to Adopt Technical Specification Task Force (TSTF)-500, Revision 2, "DC Electrical Rewrite Update to TSTF-360," dated September 29, 2017 (ADAMS Accession No. ML17275A069)

ATTACHMENT 2

Peach Bottom Atomic Power Station, Units 2 and 3
Docket Nos. 50-277 and 50-278

Supplemental Response to Request for Additional Information (RAI-1)
License Amendment Request to Revise Technical Specifications 3.8.4, DC Sources-Operating

Markup of Proposed Technical Specifications Pages

Unit 2 TS Page
3.8-28a

Unit 3 TS Page
3.8-28a

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. One required Unit 3 battery charger on one subsystem inoperable.	B.1 Restore Unit 3 battery terminal voltage to greater than or equal to the minimum established float voltage. AND B.2 Verify battery float current ≤ 2 amps. AND B.3 Restore battery charger to OPERABLE status.	12 hours ~~Once per 12 hours~~ 72 hours

(continued)

24 hours
AND
Once per 12 hours thereafter

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. One required Unit 2 battery charger on one subsystem inoperable.	B.1 Restore Unit 2 battery terminal voltage to greater than or equal to the minimum established float voltage. AND B.2 Verify battery float current: ≤ 2 amps. AND B.3 Restore battery charger to OPERABLE status.	12 hours ~~Once per 12 hours~~ 72 hours

(continued)

24 hours
AND
Once per 12 hours thereafter