



May 11, 2016

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: Supplement to License Amendment Request
Revise Surveillance Requirement 3.5.1.5 Involving Recirculation Pump
Discharge Valves

Reference: Letter from Exelon Generation Company (D. P. Helker) to the U.S. NRC
regarding "License Amendment Request to Revise Surveillance
Requirement 3.5.1.5 Involving Recirculation Pump Discharge Valves" dated
March 24, 2016.

On March 24, 2016, in accordance with the provisions of 10 CFR 50.90, "Application for amendment of license, construction permit, or early site permit," Exelon Generation Company, LLC (EGC), submitted a request for an amendment 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, respectively (Reference).

The proposed amendment requested U.S. Nuclear Regulatory Commission (NRC) approval to revise the Frequency of Surveillance Requirement (SR) 3.5.1.5 from "Once each startup prior to exceeding 23% RTP," as modified by a Note stating, "Not required to be performed if performed within the previous 31 days" to "In accordance with the Surveillance Frequency Control Program."

Based on follow-up discussions with the NRC, EGC has decided to revise the Frequency of SR 3.5.1.5 from "Once each startup prior to exceeding 23% RTP," as modified by a Note stating, "Not required to be performed if performed within the previous 31 days" to "In accordance with the Inservice Testing Program."

Attachment 1 provides the evaluation of the proposed change. Attachment 2 provides a copy of the marked up TS pages that reflect the proposed change. Attachment 3 provides a copy of the marked up TS Bases pages that reflect the proposed change (information only).

EGC 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 letter. Although changes have been made to the no significant hazards consideration to reflect this revision, EGC has concluded that the

information provided in this supplement 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, EGC has concluded that the information in this supplement 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 commitments contained within this submittal.

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

If you have any questions or require additional information, please contact Stephanie J. Hanson at 610-765-5143.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 11th day of May 2016.

Respectfully,



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

Attachments: 1. Evaluation of Proposed Change
2. Markup of Proposed Technical Specifications Pages
3. Markup of Technical Specifications Bases Page (For Information Only)

cc:	Regional Administrator - NRC Region I	w/attachments
	NRC Senior Resident Inspector - Peach Bottom Atomic Power Station	"
	NRC Project Manager, NRR - Peach Bottom Atomic Power Station	"
	Director, Bureau of Radiation Protection, Pennsylvania Department	
	of Environmental Protection	"
	S. T. Gray, State of Maryland	"

ATTACHMENT 1

EVALUATION OF PROPOSED CHANGE

Supplement to License Amendment Request

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

Subject: Supplement to License Amendment Request to Revise Surveillance Requirement 3.5.1.5 Involving Recirculation Pump Discharge Valves

1.0 SUMMARY DESCRIPTION

2.0 DETAILED DESCRIPTION

3.0 TECHNICAL EVALUATION

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4.1 Applicable Regulatory Requirements/Criteria

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1.0 SUMMARY DESCRIPTION

On March 24, 2016, in accordance with the provisions of 10 CFR 50.90, "Application for amendment of license, construction permit, or early site permit," Exelon Generation Company, LLC (EGC), submitted a request for an amendment 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, respectively (Reference 1).

The proposed amendment requested U.S. Nuclear Regulatory Commission (NRC) approval to revise the Frequency of Surveillance Requirement (SR) 3.5.1.5 from "Once each startup prior to exceeding 23% RTP," as modified by a Note stating, "Not required to be performed if performed within the previous 31 days" to "In accordance with the Surveillance Frequency Control Program."

Based on follow-up discussions with the NRC, EGC has decided to revise the Frequency of SR 3.5.1.5 from "Once each startup prior to exceeding 23% RTP," as modified by a Note stating, "Not required to be performed if performed within the previous 31 days" to "In accordance with the Inservice Testing Program."

2.0 DETAILED DESCRIPTION

PBAPS is currently in the fourth 10-year Inservice Testing (IST) interval, and is using the American Society of Mechanical Engineers (ASME) Code for Operation and Maintenance of Nuclear Power Plants (OM Code), 2001 Edition through the 2003 Addenda. The fourth 10-year IST interval at PBAPS began on August 15, 2008 and is currently scheduled to end on August 14, 2018.

As part of the approved PBAPS fourth 10-year IST interval, relief was requested from the requirements of the OM Code to adopt the requirements of Code Case OMN-1, Rev. 1, as revised in the 2006 Addenda to the ASME Code. The NRC approved this relief request (Reference 2) which allows for licensee control of the frequency of stroke time testing and position indication testing of motor-operated valves rather than what was required by ASME OM ISTC 2001 Edition through 2003 Addenda. Because this NRC-approved relief request allows for licensee control of the stroke time and position indication testing of MOVs within the bounds of OMN-1, Rev. 1, it was determined that requesting a change to TS to allow for the SR 3.5.1.5 test frequency to be controlled by the Surveillance Frequency Control Program (SFCP) was not required. It would be more appropriate to designate the SR 3.5.1.5 test frequency as being performed in accordance with the IST program.

The intent of this license amendment request is to bring PBAPS TS into alignment with the ASME OM Code. The proposed change to PBAPS SR 3.5.1.5 is necessary to conform the Technical Specifications to the IST program requirements.

3.0 TECHNICAL EVALUATION

The IST program establishes the requirements for preservice and inservice testing and examination of certain components to assess their operational readiness in light-water reactor nuclear power plants. It identifies the components subject to test or examination, responsibilities, methods, intervals, parameters to be measured and evaluated, criteria for evaluating the results, corrective action, personnel qualification, and record keeping. These

requirements apply to pumps and valves that are required to perform a specific function in shutting down a reactor to the safe shutdown condition, in maintaining the safe shutdown condition, or in mitigating the consequences of an accident.

The PBAPS IST program designates the recirculation pump discharge valves as active, Category B valves. In accordance with the IST program requirements for Category B valves, seat leakage in the closed position is inconsequential for fulfillment of the required function(s), as specified in ISTC-1300(c) of ASME OM Code-2001.

The purpose of revising the Frequency of SR 3.5.1.5 from "Once each startup prior to exceeding 23% RTP," as modified by a Note stating, "Not required to be performed if performed within the previous 31 days" to "In accordance with the Inservice Testing Program" is to bring PBAPS TS into alignment with the In-Service Testing (IST) program requirements. Under the current IST requirements, testing is required during certain Mode 4 conditions for mid-cycle plant shutdowns in accordance with the ASME OM Code (2001, through 2003 addenda) sections ISTC-3510, ISTC-3521(c) and ISTC-3521(g). The IST program requirements of performing stroke time testing of the recirculation discharge valves during certain Mode 4 conditions would not be affected by this proposed license amendment.

4.0 REGULATORY EVALUATION

4.1 Applicable Regulatory Requirements/Criteria

- Title 10 of the Code of Federal Regulations (10 CFR), Section 50.36, "Technical specifications," in which the Commission established its regulatory requirements related to the contents of the TS. 10 CFR 50.36(c) requires that the TS include, among other things, items in the following categories: (1) safety limits, limiting safety system settings, and limiting control settings; (2) limiting conditions for operation; (3) surveillance requirements; (4) design features; and (5) administrative controls.
- 10 CFR 50.55a(f), "Inservice Testing Requirements," requires, in part, that ASME Class 1, 2, and 3 components must meet the requirements of the ASME OM Code and applicable addenda, except where alternatives have been authorized pursuant to paragraphs (z)(1) and (z)(2) of 10 CFR 50.55a.
- 10 CFR 50.65(a)(1) states that each holder of a license to operate a nuclear power plant...shall monitor the performance or condition of structures, systems, or components...in a manner sufficient to provide reasonable assurance that these structures, systems, and components...are capable of fulfilling their intended functions.

4.2 Precedence

The proposed change to revise the frequency of TS SR 3.5.1.5 from "Once each startup prior to exceeding 23% RTP," as modified by a Note stating, "Not required to be performed if performed within the previous 31 days" to "In accordance with the Inservice Testing Program" for PBAPS, Units 2 and 3 is consistent with Dresden Nuclear Power Station and Quad Cities Nuclear Power Station, who incorporated this change during the Improved Standard Technical Specifications (ISTS) conversion process (References 3 and 4).

4.3 No Significant Hazards Consideration

Exelon Generation Company, LLC (EGC), proposes 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, respectively.

EGC has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

1. Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No.

The proposed change revises the frequency for cycling the recirculation pump discharge valves from "Once each startup prior to exceeding 23% RTP," as modified by a Note stating, "Not required to be performed if performed within the previous 31 days" to "In accordance with the Inservice Testing Program". Testing of the recirculation pump discharge valves is not an initiator of any accident previously evaluated. As the recirculation pump discharge valves are still required to be Operable, the ability to mitigate any accident previously evaluated is not affected. The proposed change does not adversely affect the design assumptions, conditions, or configuration of the facility. The proposed change does not alter or prevent the ability of structures, systems, and components (SSCs) from performing their intended function.

Therefore, this change does not significantly increase the probability or consequences of an accident previously evaluated.

2. Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No.

The proposed change revises the frequency for cycling the recirculation pump discharge valves from "Once each startup prior to exceeding 23% RTP," as modified by a Note stating, "Not required to be performed if performed within the previous 31 days" to "In accordance with the Inservice Testing Program". This revision will not impact the accident analysis. The change will not alter the methods of operation of the recirculation pump discharge valves. No new or different accidents result. The change does not involve a physical alteration of the plant (i.e., no new or different type of equipment will be installed) or a significant change in the methods governing normal plant operation. The change does not alter assumptions made in the safety analysis.

Therefore, the possibility of a new or different kind of accident from any accident previously evaluated is not created.

3. Does the proposed change involve a significant reduction in a margin of safety?

Response: No.

The proposed change revises the frequency for cycling the recirculation pump discharge valves from "Once each startup prior to exceeding 23% RTP," as modified by a Note stating, "Not required to be performed if performed within the previous 31 days" to "In accordance with the Inservice Testing Program". The proposed change does not alter the manner in which safety limits, limiting safety system settings or limiting conditions for operation are determined. The safety analysis acceptance criteria are not affected by this change. The proposed change will not result in plant operation in a configuration outside the design basis. The frequency of testing the recirculation pump discharge valves will be consistent with the frequency of testing other valves in the Emergency Core Cooling System.

Therefore, this change does not involve a significant reduction in a margin of safety.

Based on the above, EGC concludes that the proposed amendment presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of "no significant hazards consideration" is justified.

4.4 Conclusions

In conclusion, based on the considerations discussed above, (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

5.0 ENVIRONMENTAL CONSIDERATION

A review has determined that the proposed amendment would change a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or would change an inspection or surveillance requirement. However, the proposed amendment does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluent that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.

6.0 REFERENCES

1. Letter from Exelon Generation Company (D. P. Helker) to the U.S. NRC regarding "License Amendment Request to Revise Surveillance Requirement 3.5.1.5 Involving Recirculation Pump Discharge Valves" dated March 24, 2016.
2. Letter from the U.S. NRC (H. K. Chernoff) to Exelon Generation Company (C. G. Pardee) regarding "Peach Bottom Atomic Power Station, Units 2 and 3 – Requests for Relief Associated with the Fourth Inservice Testing Interval (TAC Nos. MD7461 and MD7462)" dated September 3, 2008. (ADAMS Accession No. ML081790539)
3. Letter from the U.S. NRC (S. N. Bailey) to Exelon Generation Company (O. D. Kingsley) for Dresden Nuclear Power Station, Units 2 and 3 regarding "Issuance of Amendments (TAC Nos. MA8382 and MA8383)" dated March 30, 2001.
4. Letter from the U.S. NRC (S. N. Bailey) to Exelon Generation Company (O. D. Kingsley) for Quad Cities Nuclear Power Station, Units 1 and 2 regarding "Issuance of Amendments (TAC Nos. MA8378 and MA8379)" dated March 30, 2001.

ATTACHMENT 2

Markup of Technical Specifications Pages

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

License Amendment Request to Revise SR 3.5.1.5

Unit 2 TS Pages

3.5-5

Unit 3 TS Pages

3.5-5

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY																
SR 3.5.1.5	<div><div>NOTE</div><div>Not required to be performed if performed within the previous 31 days.</div></div> <div>Verify each recirculation pump discharge valve cycles through one complete cycle of full travel or is de-energized in the closed position.</div>	<div>In accordance with the Inservice Testing Program.</div> <div>Once each startup prior to exceeding 23% RTP</div>																
SR 3.5.1.6	Verify automatic transfer of the power supply from the normal source to the alternate source for each LPCI subsystem inboard injection valve and each recirculation pump discharge valve.	In accordance with the Surveillance Frequency Control Program.																
SR 3.5.1.7	<div><div>-----NOTE-----</div><div>For the core spray pumps, SR 3.5.1.7 may be met using equivalent values for flow rate and test pressure determined using pump curves.</div><div>-----</div><div>Verify the following ECCS pumps develop the specified flow rate against a system head corresponding to the specified reactor pressure.</div><table><tr><th>SYSTEM</th><th>FLOW RATE</th><th>NO. OF PUMPS</th><th>SYSTEM HEAD CORRESPONDING TO A REACTOR PRESSURE OF</th></tr><tr><td>Core</td><td></td><td></td><td></td></tr><tr><td>Spray</td><td>≥ 3,125 gpm</td><td>1</td><td>≥ 105 psig</td></tr><tr><td>LPCI</td><td>≥ 8,600 gpm</td><td>1</td><td>≥ 20 psig</td></tr></table></div>	SYSTEM	FLOW RATE	NO. OF PUMPS	SYSTEM HEAD CORRESPONDING TO A REACTOR PRESSURE OF	Core				Spray	≥ 3,125 gpm	1	≥ 105 psig	LPCI	≥ 8,600 gpm	1	≥ 20 psig	<div>In accordance with the Surveillance Frequency Control Program.</div>
SYSTEM	FLOW RATE	NO. OF PUMPS	SYSTEM HEAD CORRESPONDING TO A REACTOR PRESSURE OF															
Core																		
Spray	≥ 3,125 gpm	1	≥ 105 psig															
LPCI	≥ 8,600 gpm	1	≥ 20 psig															

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SURVEILLANCE REQUIREMENTS (continued)

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SYSTEM	FLOW RATE	NO. OF PUMPS	SYSTEM HEAD CORRESPONDING TO A REACTOR PRESSURE OF															
Core																		
Spray	≥ 3,125 gpm	1	≥ 105 psig															
LPCI	≥ 8,600 gpm	1	≥ 20 psig															

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ATTACHMENT 3

Markup of Technical Specifications Bases Pages

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

License Amendment Request to Revise SR 3.5.1.5

Unit 2 TSB Pages

B 3.5-12

Unit 3 TSB Pages

B 3.5-12

BASES

SURVEILLANCE
REQUIREMENTS
(continued)

SR 3.5.1.5

Cycling the recirculation pump discharge valves through one complete cycle of full travel demonstrates that the valves are mechanically OPERABLE and will close when required. Upon initiation of an automatic LPCI subsystem injection signal, these valves are required to be closed to ensure full LPCI subsystem flow injection in the reactor via the recirculation jet pumps. De-energizing the valve in the closed position will also ensure the proper flow path for the LPCI subsystem. Acceptable methods of de-energizing the valve include de-energizing breaker control power, racking out the breaker or removing the breaker.

~~The specified Frequency is once during reactor startup before THERMAL POWER is > 23% RTP. However, this SR is modified by a Note that states the Surveillance is only required to be performed if the last performance was more than 31 days ago. Verification during reactor startup prior to reaching > 23% RTP is an exception to the normal Inservice Testing Program generic valve cycling Frequency, but is considered acceptable due to the demonstrated reliability of these valves. If the valve is inoperable and in the open position, the associated LPCI subsystem must be declared inoperable.~~

The Frequency of this SR is in accordance with the Inservice Testing Program.

SR 3.5.1.6

Verification of the automatic transfer between the normal and the alternate power source (4 kV emergency bus) for each LPCI subsystem inboard injection valve and each recirculation pump discharge valve demonstrates that AC electrical power will be available to operate these valves following loss of power to one of the 4 kV emergency buses. The ability to provide power to the inboard injection valve and the recirculation pump discharge valve from either 4 kV emergency bus associated with the LPCI subsystem ensures that the single failure of an DG will not result in the

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BASES

SURVEILLANCE
REQUIREMENTS
(continued)

SR 3.5.1.5

Cycling the recirculation pump discharge valves through one complete cycle of full travel demonstrates that the valves are mechanically OPERABLE and will close when required. Upon initiation of an automatic LPCI subsystem injection signal, these valves are required to be closed to ensure full LPCI subsystem flow injection in the reactor via the recirculation jet pumps. De-energizing the valve in the closed position will also ensure the proper flow path for the LPCI subsystem. Acceptable methods of de-energizing the valve include de-energizing breaker control power, racking out the breaker or removing the breaker.

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The Frequency of this SR is in accordance with the Inservice Testing Program.

SR 3.5.1.6

Verification of the automatic transfer between the normal and the alternate power source (4 kV emergency bus) for each LPCI subsystem inboard injection valve and each recirculation pump discharge valve demonstrates that AC electrical power will be available to operate these valves following loss of power to one of the 4 kV emergency buses. The ability to provide power to the inboard injection valve and the recirculation pump discharge valve from either 4 kV emergency bus associated with the LPCI subsystem ensures that the single failure of an DG will not result in the

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