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10 CFR 50.90

September 27, 2018

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: License Amendment Request –Technical Specifications Section 3.3.6.2 Functions 3 and 4 Applicability Changes Pertaining to Reactor Building and Refueling Floor Ventilation

In accordance with 10 CFR 50.90, *"Application for amendment of license, construction permit, or early site permit,"* Exelon Generation Company, LLC (Exelon) requests 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.

The proposed amendment would modify the applicability for TS Section 3.3.6.2, Functions 3 and 4. Specifically, Function 3 (Reactor Building Ventilation Exhaust Radiation – High) would be revised to only be required when Function 4 (Refueling Floor Ventilation Exhaust Radiation – High) is not maintained, and Function 4 would be revised to only be required when Function 3 is not maintained. The reason for this change is to prevent entry into TS 3.3.6.2 Condition "B" when one set of the Ventilation Exhaust radiation monitors (either for Reactor Building or Refueling Floor) is inoperable or isolated for maintenance. This change will help alleviate scheduling difficulties associated with Reactor Building and Refueling Floor Ventilation System maintenance activities due to the restrictive one-hour completion time associated with Required Action B.1 of TS 3.3.6.2 Condition "B." In addition, this change clarifies which Standby Gas Treatment (SGT) subsystems are required to be put into operation or declared inoperable as described in TS 3.3.6.2 Condition "C" for Required Actions C.2.1 and C.2.2.

Exelon has concluded that the proposed changes present no significant hazards consideration under the standards set forth in 10 CFR 50.92.

The proposed changes have been reviewed by the PBAPS Plant Operations Review Committee in accordance with the requirements of the Exelon Quality Assurance Program.

This amendment request contains no regulatory commitments.

Attachment 1 provides the evaluation of the proposed changes. Attachment 2 provides a copy of the marked-up TS pages reflecting the proposed changes. Attachment 3 provides a copy of the marked-up supporting TS Bases pages for information only.

Exelon requests approval of the proposed amendment by September 27, 2019, in order to support planned work activities scheduled for the Fall 2019 refueling outage. Upon NRC approval, the amendments shall be implemented within 60 days of issuance.

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

Should you have any questions concerning this submittal, please contact Richard Gropp at 610-765-5557.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 27th day of September 2018.

Respectfully,

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

Attachments:
1. Evaluation of Proposed Changes
2. Mark-up of Proposed Technical Specifications Pages
3. Mark-up of Proposed Technical Specifications Bases Pages (For Information Only)

cc: <u>w/ Attachments</u>
Regional Administrator - NRC Region I
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

EVALUATION OF PROPOSED CHANGES

Subject: License Amendment Request to Revise Technical Specifications Section 3.3.6.2 Functions 3 and 4 Applicability Pertaining to Reactor Building and Refueling Floor Ventilation

1.0 SUMMARY DESCRIPTION

Pursuant to 10 CFR 50.90, *"Application for amendment of license, construction permit, or early site permit,"* Exelon Generation Company, LLC (Exelon), 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.

The proposed amendment would modify the applicability for TS Section 3.3.6.2, Functions 3 and 4. Specifically, Function 3 (Reactor Building Ventilation Exhaust Radiation – High) would be revised to only be required when Function 4 (Refueling Floor Ventilation Exhaust Radiation – High) is not maintained, and Function 4 would be revised to only be required when Function 3 is not maintained. The reason for this change is to prevent entry into TS 3.3.6.2 Condition "B" when one set of the Ventilation Exhaust radiation monitors (either for Reactor Building or Refueling Floor) is inoperable or isolated for maintenance. This change will help alleviate scheduling difficulties associated with Reactor Building and Refueling Floor Ventilation System maintenance activities due to the restrictive one-hour completion time associated with Required Action B.1 of TS 3.3.6.2 Condition "B." In addition, this change clarifies which Standby Gas Treatment (SGT) subsystems are required to be put into operation or declared inoperable as described in TS 3.3.6.2 Condition "C" for Required Actions C.2.1 and C.2.2.

2.0 DETAILED DESCRIPTION

TS Section 3.3.6.2 requires that the Secondary Containment Isolation Instrumentation Functions associated with Reactor Low Level, Drywell High Pressure, Reactor Building Ventilation Exhaust High Radiation, and Refueling Floor Ventilation Exhaust High Radiation are operable during the applicable operational modes and specified plant conditions that are listed in Table 3.3.6.2-1 of the TS (i.e., Modes 1, 2, and 3).

Secondary Containment Isolation Instrumentation
3.3.6.2

Table 3.3.6.2-1 (page 1 of 1)
Secondary Containment Isolation Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRIP SYSTEM	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
1. Reactor Vessel Water Level –Low (Level 3)	1,2,3	2	SR 3.3.6.2.1 SR 3.3.6.2.2 SR 3.3.6.2.4 SR 3.3.6.2.5	≥ 1.0 inches
2. Drywell Pressure –High	1,2,3	2	SR 3.3.6.2.1 SR 3.3.6.2.2 SR 3.3.6.2.4 SR 3.3.6.2.5	≤ 2.0 psig

3.	Reactor Building Ventilation Exhaust Radiation—High	1,2,3, (b)	2	SR 3.3.6.2.1 SR 3.3.6.2.3 SR 3.3.6.2.5	≤ 16.0 mR/hr
4.	Refueling Floor Ventilation Exhaust Radiation—High	1,2,3, (b)	2	SR 3.3.6.2.1 SR 3.3.6.2.3 SR 3.3.6.2.5	≤ 16.0 mR/hr

(a) Deleted

(b) During movement of RECENTLY IRRADIATED FUEL assemblies in secondary containment.

The Secondary Containment Isolation Instrumentation automatically initiates closure of the appropriate Secondary Containment Isolation Valves (SCIVs) and starts the Standby Gas Treatment (SGT) system. The function of these systems, in combination with other accident mitigation systems, is to limit fission product release during and following postulated Design Basis Accidents (DBAs). Secondary Containment isolation and establishment of vacuum with the SGT system within the required time limits ensures that fission products that leak from primary containment are maintained within applicable limits. Secondary Containment Isolation Instrumentation includes the sensors, relays, and switches that are necessary to cause initiation of secondary containment isolation. Functional diversity is provided by monitoring a wide range of independent parameters. The input parameters to the isolation logic are as follows:

1. Reactor Vessel Water Level - Low
2. Drywell pressure - High
3. Reactor Building Ventilation Exhaust Radiation - High
4. Refueling Floor Ventilation Exhaust Radiation - High

As discussed above, the proposed amendment would modify the applicability for TS Section 3.3.6.2, Functions 3 and 4 in Modes 1, 2, and 3 to require that Function 3 (Reactor Building Ventilation Exhaust Radiation - High) only be required when Function 4 (Refueling Floor Ventilation Exhaust Radiation - High) is not maintained, and Function 4 only be required when Function 3 is not maintained. This change is being requested to prevent unnecessary entry into TS 3.3.6.2 Condition "B" when one set of the Ventilation Exhaust radiation monitors (either for Reactor Building or Refueling Floor) is inoperable or isolated for maintenance. This change will help alleviate scheduling difficulties associated with Reactor Building and Refueling Floor Ventilation System maintenance activities due to the restrictive one-hour completion time associated with Required Action B.1 of TS 3.3.6.2 Condition "B." In addition, this change clarifies which Standby Gas Treatment (SGT) subsystems are required to be put into operation or declared inoperable as described in TS 3.3.6.2 Condition "C" for Required Actions C.2.1 and C.2.2.

Secondary Containment Isolation Instrumentation
3.3.6.2

ACTIONS (continued)

CONDITION	REQUIRED ACTION		COMPLETION TIME
C. Required Action and associated Completion Time of Condition A or B not met.	C.1.1	Isolate the associated secondary containment penetration flow path(s).	1 hour
	OR		
	C.1.2	Declare associated secondary containment isolation valves inoperable.	1 hour
	AND		
	C.2.1	Place the associated standby gas treatment (SGT) subsystem(s) in operation.	1 hour
	OR		
	C.2.2	Declare associated SGT subsystem(s) inoperable.	1 hour

Further justification associated with the proposed changes is provided in Section 3.0, "Technical Evaluation," below.

3.0 TECHNICAL EVALUATION

The Secondary Containment Isolation Instrumentation automatically initiates closure of appropriate SCIVs and starts the SGT system. The function of these systems, in combination with other accident mitigation systems, is to limit fission product release during and following postulated DBAs. Secondary Containment isolation and establishment of vacuum with the SGT system within the required time limits ensures that fission products that leak from primary containment following a DBA, or are released outside primary containment, or are released during

certain operations when primary containment is not required to be operable are maintained within applicable limits.

The Isolation Instrumentation includes the sensors, relays, and switches that are necessary to cause initiation of Secondary Containment isolation. Most channels include electronic equipment (e.g., trip units) that compares measured input signals with pre-established setpoints. When the setpoint is exceeded, the channel output relay actuates, which then outputs a Secondary Containment isolation signal to the isolation logic. Functional diversity is provided by monitoring a wide range of independent parameters. The input parameters to the isolation logic are:

1. Reactor Vessel Water Level - Low
2. Drywell Pressure - High
3. Reactor Building Ventilation Exhaust Radiation - High
4. Refueling Floor Ventilation Exhaust Radiation - High

Redundant sensor input signals from each parameter are provided for initiation of the isolation.

The outputs of the channels are arranged in a one-out-of-two taken twice logic. Automatic isolation valves (dampers) isolate and SGT subsystems start when both trip systems are in trip. Operation of both trip systems is required to isolate the Secondary Containment and provide for the necessary filtration of fission products. The isolation signals generated by the Secondary Containment isolation instrumentation initiate closure of valves and start the SGT system to limit offsite doses.

The operability of the Secondary Containment Isolation Instrumentation is dependent on the operability of the individual instrumentation channel Functions. Each Function must have the required number of operable channels with their setpoints set within the specified allowable values, as described in Table 3.3.6.2-1. The actual setpoint is calibrated consistent with applicable setpoint methodology assumptions. A channel is inoperable if its actual trip setting is not within its required allowable value.

Allowable values are specified for each Function specified in Table 3.3.6.2-1. Trip setpoints are specified in the setpoint calculations. The trip setpoints are selected to ensure that the setpoints do not exceed the allowable value between channel calibrations. Operation with a trip setting less conservative than the trip setpoint, but within its allowable value, is acceptable.

Trip setpoints are those predetermined values of output at which an action should take place. The setpoints are compared to the actual process parameter (e.g., reactor vessel water level), and when the measured output value of the process parameter exceeds the setpoint, the associated device (e.g., trip unit) changes state. The analytic or design limits are derived from the limiting values of the process parameters obtained from the safety analysis or other appropriate documents. The allowable values are derived from the analytic or design limits, corrected for calibration, process, and instrument errors. The trip setpoints are then determined from analytical or design limits, corrected for calibration, process, and instrument errors, as well as, instrument drift. In selected cases, the allowable values and trip setpoints are determined by Limiting Conditions for Operation (LCO), and engineering judgement or historically accepted practice relative to the intended function of the channel. The trip setpoints determined in this manner

provide adequate protection by assuring instrument and process uncertainties expected for the environments during the operating time of the associated channels are accounted for.

In general, the individual Functions are required to be operable in the specified Modes or other specified conditions when SCIVs and the SGT system are required.

The Reactor Vessel Water Level - Low Function is required to be operable in Modes 1, 2, and 3 where considerable energy exists in the Reactor Coolant System (RCS); therefore, there is a probability of pipe breaks resulting in significant releases of radioactive steam and gas.

High Drywell pressure can indicate a break in the Reactor Coolant Pressure Boundary (RCPB). The Drywell Pressure - High Function is required to be operable in Modes 1, 2, and 3 where considerable energy exists in the RCS; therefore, there is also a probability of pipe breaks resulting in significant releases of radioactive steam and gas.

High Secondary Containment exhaust radiation is an indication of possible gross failure of the fuel cladding. The release may originate from Primary Containment due to a break in the RCPB or during refueling due to a DBA Fuel Handling Accident (FHA). The Ventilation Exhaust Radiation - High signals are initiated from radiation detectors that are located on the ventilation exhaust ducting coming from the Reactor Building and Refueling Floor zones, respectively. When Ventilation Exhaust Radiation -High is detected, Secondary Containment isolation and actuation of the SGT system are initiated to limit the release of fission products as assumed in the Updated Final Safety Analysis Report (UFSAR). The signal from each detector is input to an individual monitor whose trip outputs are assigned to an isolation channel. Four (4) channels of Reactor Building Ventilation Exhaust Radiation - High Function and four (4) channels of Refueling Floor Ventilation Exhaust Radiation - High Function are available and are required to be operable to ensure that no single instrument failure can preclude the isolation function. The outputs of the channels are arranged in a one-out-of-two taken twice logic. A trip of the "A" or "C" channel accompanied by a trip of the "B" or "D" channel will result in a Group III isolation.

The allowable values are chosen to promptly detect gross failure of the fuel cladding. The Reactor Building Ventilation and Refueling Floor Ventilation Exhaust Radiation - High Functions are required to be operable in Modes 1, 2, and 3 where considerable energy exists and a probability of pipe breaks resulting in significant releases of radioactive steam and gas. In addition, these Functions are required to be operable in Modes 1, 2, and 3 to ensure that offsite does limits are not exceeded in the event of radiation releases due to fuel uncovery and to maintain Reactor Pressure Vessel Water Inventory Control. In Modes 4 and 5, the probability and consequences of high energy line breaks are low due to the RCS pressure and temperature limitations of these Modes; therefore, these Functions are not required. However, these Functions are required to be operable in Modes 4 and 5 during movement of recently irradiated fuel and to ensure that offsite does limits are not exceeded in the event of radiation releases due to dropped fuel assemblies.

It is considered acceptable to allow the Reactor Building Ventilation Exhaust Radiation - High Function to only be TS applicable when the Refueling Floor Ventilation Exhaust Radiation - High Function is not maintained (or vice versa) since the Refuel Floor hatch cover has been removed. The absence of the Refuel Floor hatch cover allows communication of the air spaces between the Reactor Building and the Refuel Floor. Although the Refuel Floor hatch is covered with a

tarp during outages, it does not provide a seal since the sides are open from the handrail down. Therefore, upon a DBA where excessive radioactive material is released into Secondary Containment, airborne radioactivity will be drawn down and detected at either the Refuel Floor Exhaust radiation monitors or the Reactor Building Exhaust radiation monitors (whichever set of monitors is not isolated) to provide a valid secondary containment isolation signal. For example, if a DBA FHA occurs and the Refuel Floor exhaust duct is isolated, the Refuel Floor air space will be drawn down and exhausted through the operable Reactor Building exhaust duct below the Refuel Floor since the Refuel Floor air space is in direct communication with the air space of the Reactor Building below the Refuel Floor via the open hatch. Therefore, airborne activity will still be detected by the Reactor Building Ventilation Exhaust radiation monitors to provide a Reactor Building isolation signal.

There is a slight difference between Refuel Floor exhaust radiation and Reactor Building exhaust radiation during normal plant operations. Historical data from the Plant Monitoring System (PMS) indicates that Refuel Floor exhaust radiation typically ranges from 0.20 - 0.40 mR/hr and Reactor Building exhaust radiation typically ranges from 0.05 - 0.150 mR/hr during normal plant operations. This difference in dose rates is a function of the location of the radiation monitors, and does not prevent either set of radiation monitors from initiating an isolation with one set of the ventilation exhaust radiation monitors isolated.

This postulated flow path through the hatch cover has no effect on the closure timing of the SCIVs. The operable Reactor Building SCIVs will still be functional to isolate the Reactor Building atmosphere in 1.5 to 10 seconds as required and prevent a ground-level release of radioactive material. This rapid closure time prevents escape of potentially contaminated air from the Secondary Containment to the environment. In addition, this postulated flow path for Secondary Containment isolation does not have any effect on the four DBA offsite dose calculations, which includes the DBA FHA, Main Steam Line Break (MSLB), Control Rod Drop Accident (CRDA), and Loss of Coolant Accident (LOCA).

The postulated flow path through the hatch cover for Secondary Containment isolation does not affect the offsite dose analysis associated with a DBA FHA as supported by Calculation PM-1059 Revision 5, Section 2.5 of the analysis which states: *"Neither the Standby Gas Treatment System & Control Room Emergency Ventilation System filtration of the activity nor the elevated release via the main stack to the environment is credited for this release path."* Therefore, there is no impact on this calculation, since the calculation assumes a ground-level release.

The postulated flow path through the hatch cover for Secondary Containment isolation does not affect the offsite dose analysis associated with a DBA MSLB as supported by Calculation PM-1058, Revision 2, Section 4.2.3 of the analysis which states: *"All radionuclides in the released coolant are assumed to be released to the atmosphere instantaneously as a ground level release. No credit is assumed for plateout, holdup, or dilution within facility buildings."* Therefore, there is no impact on this calculation, since the calculation assumes a ground-level release.

The postulated flow path through the hatch cover for Secondary Containment isolation does not affect the offsite dose analysis associated with a DBA CRDA as supported by Calculation PM-1057, Revision 5, Section 2.3 of the analysis which states: *"The post-CRDA activity from the turbine and condenser is postulated to directly release to the environment (through a) ground*

level release...." Therefore, there is no impact on this calculation, since the calculation assumes a ground level release.

The postulated flow path through the hatch cover for Secondary Containment isolation does not affect the offsite dose analysis associated with a DBA LOCA as supported by Calculation PM-1077, Revision 3. Although an elevated release through the Main Stack is credited in this calculation, Secondary Containment will isolate on low reactor water level before the Ventilation Exhaust Radiation Monitors reach their setpoints for isolation. Therefore, there is no impact on this calculation, since the Secondary Containment isolation signal will not come from the Exhaust Duct Radiation Monitors, but rather from the LOCA signals (i.e., Low Reactor Level, High Drywell Pressure).

For Unit 2, the SGT subsystems that are required to be placed in service as directed by TS 3.3.6.2, Required Action C.2.1, are both the "A" and "B" subsystems. This requires opening both the inlet and outlet Air Operated Valves (AOVs) for both the "A" and "B" filter trains and starting the "A" and "B" fans. These are the valves and fans that automatically open and start upon a Unit 2 Group III isolation. Likewise, for Unit 3, the SGT subsystems that are required to be placed in service as directed by TS 3.3.6.2, Required Action C.2.1 are both the "A" and "B" subsystems. This requires opening both the inlet and outlet AOVs for both the "A" and "B" filter trains and starting the "C" and "B" fans. These are the valves and fans that automatically open and start upon a Unit 3 Group III isolation.

Similarly, for Unit 2, the SGT subsystems that are required to be declared inoperable as directed by TS 3.3.6.2, Required Action C.2.2 are both the "A" and "B" subsystems. This includes the inlet and outlet AOVs for both the "A" and "B" filter trains and the "A" and "B" fans. These are the valves and fans that automatically open and start upon a Unit 2 Group III isolation. Likewise, for Unit 3, the SGT subsystems that are required to be declared inoperable as directed by TS 3.3.6.2, Required Action C.2.2 are both the "A" and "B" subsystems. This includes the inlet and outlet AOVs for both the "A" and "B" filter trains and the "C" and "B" fans. These are the valves and fans that automatically open and start upon a Unit 3 Group III isolation.

In summary, it is considered acceptable to revise TS 3.3.6.2, Function 3 and 4 applicability as described above as long as the Refuel Floor hatch plug remains removed and no other physical obstruction seals the air flow path between the Refuel Floor and the Reactor Building. In addition, for both units, both the "A" and "B" SGT subsystems must be placed in service as directed by TS 3.3.6.2, Required Action C.2.1. This requires opening both the inlet and outlet AOVs for both the "A" and "B" filter trains and starting the "A" and "B" fans for Unit 2, and opening both the inlet and outlet AOVs for both the "A" and "B" SGT filter trains and starting the "C" and "B" fans for Unit 3. Likewise, for both units, both the "A" and "B" SGT subsystems must be declared inoperable as directed by TS 3.3.6.2, Required Action C.2.2.

4.0 REGULATORY EVALUATION

4.1 Applicable Regulatory Requirements/Criteria

The following regulatory requirements have been considered:

10 CFR 50.36, "Technical Specifications," establishes NRC requirements related to the contents of the TS. In particular, 10 CFR 50.36(c)(ii)(2) stipulates:

> *(ii) A technical specification limiting condition for operation of a nuclear reactor must be established for each item meeting one or more of the following criteria:*
>
> *(A) Criterion 1. Installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary.*
>
> *(B) Criterion 2. A process variable, design feature, or operating restriction that is an initial condition of a design basis accident or transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.*
>
> *(C) Criterion 3. A structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a design basis accident or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.*
>
> *(D) Criterion 4. A structure, system, or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety.*

The Secondary Containment isolation instrumentation satisfies Criterion 3 of the NRC requirements above.

4.2 Precedent

Although there have been license amendments issued throughout the industry associated with various aspects of TS radiation monitoring instrumentation, there was no specific precedent identified related to this proposed change..

4.3 No Significant Hazards Consideration

In accordance with 10 CFR 50.90, *"Application for amendment of license, construction permit, or early site permit,"* Exelon Generation Company, LLC (Exelon), proposes a change to the Technical Specifications (TS), Appendix A of the Renewed Facility

Operating License Nos. DPR-44 and DPR-56 for Peach Bottom Atomic Power Station (PBAPS), Units 2 and 3, respectively.

The proposed amendment would modify the applicability for TS Section 3.3.6.2, Functions 3 and 4. Specifically, Function 3 (Reactor Building Ventilation Exhaust Radiation – High) would be revised to only be required when Function 4 (Refueling Floor Ventilation Exhaust Radiation – High) is not maintained, and Function 4 would be revised to only be required when Function 3 is not maintained. The reason for this change is to prevent unnecessary entry into TS 3.3.6.2 Condition "B" when one set of the Ventilation Exhaust radiation monitors (either for Reactor Building or Refueling Floor) is inoperable or isolated for maintenance. This change will help alleviate scheduling difficulties associated with Reactor Building and Refueling Floor Ventilation System maintenance activities due to the restrictive one-hour completion time associated with Required Action B.1 of TS 3.3.6.2 Condition "B." In addition, this change clarifies which Standby Gas Treatment (SGT) subsystems are required to be put into operation or declared inoperable as described in TS 3.3.6.2 Condition "C" for Required Actions C.2.1 and C.2.2.

Exelon has evaluated the proposed changes, using the criteria in 10 CFR 50.92, *"Issuance of amendment,"* and has determined that the proposed changes do not involve a significant hazards consideration. The following information is provided to support a finding of no significant hazards consideration.

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

Response: No

The requested changes to TS Section 3.3.6.2 to revise the applicability of Functions 3 and 4 as proposed does not eliminate the design function associated with the radiation monitoring instrumentation. The Secondary Containment Isolation Instrumentation will continue to automatically initiate closure of appropriate Secondary Containment Isolation Valves (SCIVs) and start the Standby Gas Treatment (SGT) system as designed to limit fission product release during any postulated Design Basis Accidents (DBAs). These systems are not accident initiators. The proposed changes will continue to assure that these systems perform their design functions, which includes mitigating accidents. The proposed changes do not alter the physical design of any plant Structure, System, or Components (SSC); therefore, the proposed changes have no adverse effect on plant operation, or the availability or operation of any accident mitigation equipment. The plant response to DBAs does not change and remains as analyzed in the Updated Final Safety Analysis Report (UFSAR).

Therefore, the proposed changes do not involve a significant increase in 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 requested changes to TS Section 3.3.6.2 to revise the applicability of Functions 3 and 4 as proposed does not adversely affect the design function associated with the radiation monitoring instrumentation. The proposed changes do not change any system operations or maintenance activities that would create the possibility of a new or different kind of accident from one previously evaluated. The Secondary Containment Isolation Instrumentation and SGT system will continue to function as designed. The proposed changes will continue to assure that these systems perform their design functions, which includes mitigating accidents. The proposed changes do not create new failure modes or mechanisms and no new accident precursors are created. The proposed changes do not alter the plant configuration (no new or different type of equipment is being installed) or require any new or unusual Operator actions. The proposed changes do not alter the safety limits or safety analysis assumptions associated with the operation of the plant. The proposed changes do not introduce any new failure modes or mechanisms that could result in a new accident. The proposed changes do not reduce or adversely affect the capabilities of any plant SSC in the performance of their safety function. Also, the response of the plant and the Operators following any DBA is unaffected by the proposed changes.

   Therefore, the proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

   Response: No

   The requested changes to TS Section 3.3.6.2 to revise the applicability of Functions 3 and 4 as proposed does not alter the design capability associated with the radiation monitoring instrumentation. The proposed changes have no adverse effect on plant operation, or the availability or operation of any accident mitigation equipment. The plant response to DBAs does not change. The proposed changes do not adversely affect existing plant safety margins or the reliability of the equipment assumed to operate in the safety analyses. There is no change being made to safety analysis assumptions, safety limits or limiting safety system settings that would adversely affect plant safety as a result of the proposed changes.

   Therefore, the proposed changes do not involve a significant reduction in a margin of safety.

Based on the above evaluation, Exelon concludes that the proposed amendment presents no significant hazards consideration under the standards set forth in

10 CFR 50.92, paragraph (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 the health and safety of the public.

5.0 ENVIRONMENTAL CONSIDERATION

Exelon 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, "Standards for Protection Against Radiation." 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, "Criterion for categorical exclusion; identification of licensing and regulatory actions eligible for categorical exclusion or otherwise not requiring environmental review," paragraph (c)(9). Therefore, pursuant to 10 CFR 51.22, paragraph (b), no environmental impact statement or environmental assessment needs to be prepared in connection with the proposed amendment.

6.0 REFERENCES

None

ATTACHMENT 2

License Amendment Request

Peach Bottom Atomic Power Station, Units 2 and 3

Docket Nos. 50-277 and 50-278

License Amendment Request to Revise Technical Specifications Section 3.3.6.2 Functions 3 and 4 Applicability Pertaining to Reactor Building and Refueling Floor Ventilation

Markup of Proposed Technical Specifications Pages

Unit 2	Unit 3
3.3-58	3.3-58

Table 3.3.6.2-1 (page 1 of 1)
Secondary Containment Isolation Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRIP SYSTEM	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
1. Reactor Vessel Water Level –Low (Level 3)	1,2,3	2	SR 3.3.6.2.1 SR 3.3.6.2.2 SR 3.3.6.2.4 SR 3.3.6.2.5	≥ 1.0 inches
2. Drywell Pressure –High	1,2,3	2	SR 3.3.6.2.1 SR 3.3.6.2.2 SR 3.3.6.2.4 SR 3.3.6.2.5	≤ 2.0 psig
3. Reactor Building Ventilation Exhaust Radiation –High	1,2,3, (b), (c)	2	SR 3.3.6.2.1 SR 3.3.6.2.3 SR 3.3.6.2.5	≤ 16.0 mR/hr
4. Refueling Floor Ventilation Exhaust Radiation –High	1,2,3, (b), (d)	2	SR 3.3.6.2.1 SR 3.3.6.2.3 SR 3.3.6.2.5	≤ 16.0 mR/hr

(a) Deleted

(b) During movement of RECENTLY IRRADIATED FUEL assemblies in secondary containment.

(c) Function is only applicable if Function 4 isolation capability is not maintained.

(d) Function is only applicable if Function 3 isolation capability is not maintained.

Table 3.3.6.2-1 (page 1 of 1)
Secondary Containment Isolation Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRIP SYSTEM	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
1. Reactor Vessel Water Level –Low (Level 3)	1,2,3	2	SR 3.3.6.2.1 SR 3.3.6.2.2 SR 3.3.6.2.4 SR 3.3.6.2.5	≥ 1.0 inches
2. Drywell Pressure –High	1,2,3	2	SR 3.3.6.2.1 SR 3.3.6.2.2 SR 3.3.6.2.4 SR 3.3.6.2.5	≤ 2.0 psig
3. Reactor Building Ventilation Exhaust Radiation –High	1,2,3, (b), (c)	2	SR 3.3.6.2.1 SR 3.3.6.2.3 SR 3.3.6.2.5	≤ 16.0 mR/hr
4. Refueling Floor Ventilation Exhaust Radiation –High	1,2,3, (b), (d)	2	SR 3.3.6.2.1 SR 3.3.6.2.3 SR 3.3.6.2.5	≤ 16.0 mR/hr

(a) Deleted

(b) During movement of RECENTLY IRRADIATED FUEL assemblies in secondary containment.

(c) Function is only applicable if Function 4 isolation capability is not maintained.

(d) Function is only applicable if Function 3 isolation capability is not maintained.

ATTACHMENT 3

License Amendment Request

Peach Bottom Atomic Power Station, Units 2 and 3

Docket Nos. 50-277 and 50-278

License Amendment Request to Revise Technical Specifications Section 3.3.6.2 Functions 3 and 4 Applicability Pertaining to Reactor Building and Refueling Floor Ventilation

Markup of Proposed Technical Specifications Bases Pages (For Information Only)

Unit 2	Unit 3
B 3.3-174	B 3.3-174
B 3.3-176	B 3.3-176
B 3.3-179	B 3.3-179

The absence of the Refueling Floor hatch cover allows communication of the air spaces between the Reactor Building and the Refuel Floor. As a result, either the Reactor Building Ventilation Exhaust Radiation - High Function, or the Refueling Floor Ventilation Exhaust Radiation - High Function can initiate Secondary Containment Isolation when high radiation levels exist in either area (Reference 7). At least one of these

BASES

APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY

3. 4. Reactor Building Ventilation and Refueling Floor Ventilation Exhaust Radiation—High (continued)

channels of Reactor Building Ventilation Exhaust Radiation—High Function and four channels of Refueling Floor Ventilation Exhaust Radiation—High Function are available and are required to be OPERABLE to ensure that no single instrument failure can preclude the isolation function.

The Allowable Values are chosen to promptly detect gross failure of the fuel cladding.

In addition, these Functions are required to be operable in Modes 1, 2, and 3 to ensure that offsite dose limits are not exceeded in the event of radiation releases due to fuel uncovery and to maintain Reactor Pressure Vessel Water Inventory Control.

and

therefore,

~~The Reactor Building Ventilation and Refueling Floor Ventilation Exhaust Radiation—High~~ Functions are required to be OPERABLE in MODES 1, 2, and 3 where considerable energy exists~~; thus, there is~~ a probability of pipe breaks resulting in significant releases of radioactive steam and gas. In MODES 4 and 5, the probability and consequences of ~~these events~~ are low due to the RCS pressure and temperature limitations of these MODES; ~~thus,~~ these Functions are not required. ~~In addition, the~~ Functions are also required to be OPERABLE ~~during OPDRVs and movement of RECENTLY IRRADIATED FUEL assemblies in the secondary containment, because the capability of detecting radiation releases due to fuel failures (due to fuel uncovery or dropped fuel assemblies) must be provided to ensure that offsite dose limits are not exceeded.~~

high energy line breaks

in Modes 4 and 5 during movement of recently irradiated fuel and to ensure that offsite dose limits are not exceeded in the event of radiation releases due to dropped fuel assemblies.

However, these

ACTIONS

A Note has been provided to modify the ACTIONS related to secondary containment isolation instrumentation channels. Section 1.3, Completion Times, specifies that once a Condition has been entered, subsequent divisions, subsystems, components, or variables expressed in the Condition, discovered to be inoperable or not within limits, will not result in separate entry into the Condition. Section 1.3 also specifies that Required Actions of the Condition continue to apply for each additional failure, with Completion Times based on initial entry into the Condition. However, the Required Actions for inoperable secondary containment isolation instrumentation channels provide appropriate compensatory measures for separate inoperable channels. As such, a Note has been provided that allows separate Condition entry for each inoperable secondary containment isolation instrumentation channel.

(continued)

BASES

ACTIONS

B.1 (continued)

The Completion Time is intended to allow the operator time to evaluate and repair any discovered inoperabilities. The 1 hour Completion Time is acceptable because it minimizes risk while allowing time for restoration or tripping of channels.

C.1.1, C.1.2, C.2.1, and C.2.2

If any Required Action and associated Completion Time of Condition A or B are not met, the ability to isolate the secondary containment and start the SGT System cannot be ensured. Therefore, further actions must be performed to ensure the ability to maintain the secondary containment function. Isolating the associated secondary containment penetration flow path(s) and starting the associated SGT subsystem (Required Actions C.1.1 and C.2.1) performs the intended function of the instrumentation and allows operation to continue.

Alternately, declaring the associated SCIVs or SGT subsystem(s) inoperable (Required Actions C.1.2 and C.2.2) is also acceptable since the Required Actions of the respective LCOs (LCO 3.6.4.2 and LCO 3.6.4.3) provide appropriate actions for the inoperable components.

One hour is sufficient for plant operations personnel to establish required plant conditions or to declare the associated components inoperable without unnecessarily challenging plant systems.

INSERT 1

SURVEILLANCE REQUIREMENTS

As noted at the beginning of the SRs, the SRs for each Secondary Containment Isolation instrumentation Function are located in the SRs column of Table 3.3.6.2-1.

(continued)

BASES (continued)

REFERENCES

1. UFSAR, Section 14.6.

2. UFSAR, Chapter 14.

3. UFSAR, Section 14.6.5.

4. UFSAR, Sections 14.6.3 and 14.6.4.

5. NEDC-31677P-A, "Technical Specification Improvement Analysis for BWR Isolation Actuation Instrumentation," July 1990.

6. NEDC-30851P-A Supplement 2, "Technical Specifications Improvement Analysis for BWR Isolation Instrumentation Common to RPS and ECCS Instrumentation," March 1989.

7. Technical Evaluation 03976121-06.

UNIT 2

Wording of Revised Paragraph on Bases Page 3.3-174

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INSERT 1 – Bases Page 3.3-176

For Unit 2, the SGT subsystems that are required to be placed in service as directed by TS 3.3.6.2, Required Action C.2.1, are both the "A" and "B" subsystems. This requires opening both the inlet and outlet Air Operated Valves (AOVs) for both the "A" and "B" filter trains and starting the "A" and "B" fans. These are the valves and fans that automatically open and start upon a Unit 2 Group III isolation.

Similarly, for Unit 2, the SGT subsystems that are required to be declared inoperable as directed by TS 3.3.6.2. Required Action C.2.2 are both the "A" and "B" subsystems. This includes the inlet and outlet AOVs for both the "A" and "B" filter trains and the "A" and "B" fans. These are the valves and fans that automatically open and start upon a Unit 2 Group III isolation.

BASES

The absence of the Refueling Floor hatch cover allows communication of the air spaces between the Reactor Building and the Refuel Floor. As a result, either the Reactor Building Ventilation Exhaust Radiation - High Function, or the Refueling Floor Ventilation Exhaust Radiation - High Function can initiate Secondary Containment Isolation when high radiation levels exist in either area (Reference 7). At least one of these

APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY

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(continued)

BASES

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B.1 (continued)

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Alternately, declaring the associated SCIVs or SGT subsystem(s) inoperable (Required Actions C.1.2 and C.2.2) is also acceptable since the Required Actions of the respective LCOs (LCO 3.6.4.2 and LCO 3.6.4.3) provide appropriate actions for the inoperable components.

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(continued)

BASES (continued)

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1. UFSAR, Section 14.6.

2. UFSAR, Chapter 14.

3. UFSAR, Section 14.6.5.

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5. NEDC-31677P-A, "Technical Specification Improvement Analysis for BWR Isolation Actuation Instrumentation," July 1990.

6. NEDC-30851P-A Supplement 2, "Technical Specifications Improvement Analysis for BWR Isolation Instrumentation Common to RPS and ECCS Instrumentation," March 1989.

7. Technical Evaluation EC 620014.

UNIT 3

Wording of Revised Paragraph on Bases Page 3.3-174

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Similarly, for Unit 3, the SGT subsystems that are required to be declared inoperable as directed by TS 3.3.6.2, Required Action C.2.2 are both the "A" and "B" subsystems. This includes the inlet and outlet AOVs for both the "A" and "B" filter trains and the "C" and "B" fans. These are the valves and fans that automatically open and start upon a Unit 3 Group III isolation.