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

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

Subject: Response to Request for Additional Information Related to Scoping and Screening Methodology

Reference: Letter from R. K. Anand (USNRC) to M. P. Gallagher (Exelon), dated January 23, 2002

Dear Sir/Madam:

Exelon Generation Company, LLC (Exelon) hereby submits the enclosed responses to the request for additional information transmitted in the reference letter. For your convenience, attachment 1 restates the questions from the reference letter and provides our responses.

If you have any questions or require additional information, please do not hesitate to call.

Very truly yours,

D. A. Helker /FOR

Michael P. Gallagher
Director, Licensing and Regulatory Affairs
Mid-Atlantic Regional Operating Group

Enclosures: Affidavit, Attachment 1

cc: H. J. Miller, Administrator, Region I, USNRC
A. C. McMurtray, USNRC Senior Resident Inspector, PBAPS

A001

Affidavit of George Vanderheyden

I, George Vanderheyden, Vice President, do hereby affirm and state:

1. I am authorized to execute this affidavit on behalf of Exelon Generation Company, LLC ("EGC").

2. EGC is providing this information is support of its Application for License Renewal for the Peach Bottom Atomic Power Station Units 2 and 3 (NRC Facility Operating License Nos. DPR-44 and DPR-56; Docket Nos. 50-277 and 50-278.)

3. I affirm that the content of this transmittal is true and correct to the best of my knowledge, information and belief.

George Vanderheyden
Vice President

Commonwealth of Pennsylvania
County of Chester

Subscribed and sworn to before me, a Notary Public, in and for the County and Commonwealth above named, this 28th day of February, 2002.

Vivia V. Gallimore
Notary Public

My Commission Expires:
10-6-03

Notarial Seal
Vivia V. Gallimore, Notary Public
Kennett Square Boro, Chester County
My Commission Expires Oct. 6, 2003
Member, Pennsylvania Association of Notaries

ATTACHMENT 1

Exelon Generation Company, LLC (Exelon)
License Renewal Application (LRA)
Peach Bottom Atomic Power Station (PBAPS), Units 2 and 3

Request for Additional Information

1. Section 2.1.2 of the PBAPS LRA, "Scoping Methodology"

RAI 2.1.2-1 Scoping and Screening Methodology

As discussed and understood during the scoping and screening methodology audit performed December 4-7, 2001, describe in detail the scoping and screening process, as shown in Figure 2.1-1 of the PBAPS LRA, with respect to mechanical, structural and electrical disciplines.

Response:

Figure 2.1-1 of the Peach Bottom LRA is a broad overview of scoping and screening. The figure identifies the basic steps behind scoping and screening. Some steps represent previously completed evaluations from the Current Licensing Basis (CLB), such as the results of Maintenance Rule system scoping. The scoping and screening methodology used by Exelon is described in Sections 2.1.1, 2.1.2 and 2.1.3 of the LRA. The explanation below provides additional detail of the scoping and screening methodology, to supplement the description provided in the LRA, with respect to mechanical, structural and electrical disciplines.

Mechanical System Scoping and Screening Methodology

Identification of Plant Mechanical Systems

A comprehensive list of systems to be evaluated for license renewal scoping was produced from the Maintenance Rule Basis documentation. The Maintenance Rule Basis documentation is based on the Component Record List (CRL). The CRL is a highly reliable source for a comprehensive list of mechanical systems. The Component Record List is the controlled database used to identify plant systems and equipment at Peach Bottom. All plant systems are uniquely identified in the CRL, and each component is assigned to a specific system. The CRL is also the Q-list. The CRL includes a Quality Classification for each component, which is used to identify the safety related components in the plant.

System Scoping

The previously completed Maintenance Rule scoping evaluations were performed on a system basis, for each mechanical system identified in the CRL. License Renewal scoping evaluations were also performed on a system basis, for each mechanical system. The evaluation against license renewal scoping criteria 10 CFR 54.4(a)(1) and (2) for mechanical systems is taken from the corresponding Maintenance Rule scoping criteria. The review of scoping criteria 10 CFR 54.4(a)(1) and (2) is documented in the first two scoping questions on the license renewal scoping form.

10 CFR 54.4(a)(1):

> *Safety-related systems, structures, and components which are those relied upon to remain functional during and following design-basis events (as defined in 10 CFR 50.49(b)(1)) to ensure the following functions:*
>
> *(i) The integrity of the reactor coolant pressure boundary;*
>
> *(ii) The capability to shut down the reactor and maintain it in a safe shutdown condition; or*
>
> *(iii) The capability to prevent or mitigate the consequences of accidents which could result in potential offsite exposures comparable to those referred to in 10 CFR 50.34 (a)(1), 10 CFR 50.67(b)(2), or 10 CFR 100.11.*

10 CFR 54.4(a)(2):

> *All nonsafety-related systems, structures, and components whose failure could prevent satisfactory accomplishment of any of the functions identified in (1)(i), (ii), or (iii) above.*

The answers to these scoping questions were transferred electronically from the Maintenance Rule scoping documentation to the license renewal database, and then confirmed during the license renewal system scoping review. If after review, it was determined that the answer to one of these questions should be changed for license renewal, then the change was documented in the license renewal database and on the license renewal scoping form.

The scoping review form also includes three questions to address license renewal scoping criteria 10 CFR 54.4(a)(3).

10 CFR 54.4(a)(3):

> *All systems, structures, and components relied on in safety analyses or plant evaluations to perform a function that demonstrates compliance with the Commission's regulations for fire protection (10 CFR 50.48), environmental qualification (10 CFR 50.49), pressurized thermal shock (10 CFR 50.61), anticipated transients without scram (10 CFR 50.62), and station blackout (10 CFR 50.63).*

Systems that are in the scope of license renewal scoping criteria 10 CFR 54.4(a)(3) are identified by review of appropriate plant documentation. For 10 CFR 50.48 (Fire Protection) and 10 CFR 50.63 (Station Blackout), the review is documented in license renewal position papers. For 10 CFR 50.62 (ATWS), the required components are identified in the controlled CRL database. The reviewer uses the position papers and the CRL to answer these three questions.

The equipment within the scope of Environmental Qualification, 10 CFR 50.49, is identified by a controlled data field in the CRL and is addressed in LRA Section 4.4 under the TLAA evaluations. 10 CFR 50.61 (Pressurized Thermal Shock) is not applicable to boiling water reactors.

The results of system scoping are documented, reviewed and approved on a license renewal scoping form. The format of the scoping form is defined in Exhibit 3 to procedure LR-C-14, "License Renewal Process." A scoping form is prepared for each system, and includes references to the applicable UFSAR sections, design drawings and Design Baseline Documents. The form also includes answers to the scoping questions, system intended functions, applicable supporting systems, and whether or not any components were realigned into or out of the system. The scoping form is generated as a report from the license renewal database, where the scoping data is entered during the review process.

System Boundary Interfaces

System boundary interfaces were examined to ensure that interfacing components were associated with the appropriate system for license renewal. The CRL component assignments within systems were often established based on the "normal" operating system functions, and not necessarily based on the functions performed during design basis events. As a result, some non-safety related systems at PBAPS include safety related components that interface with other, safety related systems. For example, normally closed isolation valves in a makeup water flush connection to the safety related High Pressure Service Water (HPSW) system are safety related because they are part of the HPSW boundary during a design basis event. The makeup water connection is from the water treatment system, which is not safety related, but these individual isolation valves are safety related. These valves were identified in plant documentation as part of the water treatment system, but for license renewal purposes are functionally part of HPSW system. As such, they were realigned to the HPSW system from the water treatment system. The component intended function of these valves support the HPSW system intended functions. System boundary realignments are described in more detail in response to RAI 2.1.2-2.

Boundary realignments and any resulting impacts on system level scoping or component screening were reviewed and discussed during the weekly license renewal team meeting. This review assured that the reviewers assigned to the interfacing systems were aware and concurred with the final boundary alignments.

Component Downloads from the CRL

Component listings for non-safety related systems were downloaded from the CRL and reviewed to check for any safety related components. This review assured that components associated with system interfaces such as those described above are captured, regardless of which system they were assigned to in the CRL. Any safety related components found in non-safety related systems were included in the license renewal database. The specific functions of such components were determined by review against the plant Current Licensing Basis, on a case-by-case basis, to identify the appropriate system and system intended functions they are required to support, in accordance with 10 CFR 54.4(b). These component reviews are documented in the individual system scoping evaluation forms, and components are assigned to the appropriate in-scope system in the license renewal database.

Component listings for systems in the scope of license renewal were also downloaded from the CRL, and were included in the license renewal database, as described below in the discussion of Component Screening.

System Intended Functions

For systems in the scope of license renewal, the system intended functions are identified from the Design Baseline Documents and the UFSAR.

Component Screening

As part of the scoping review, component listings were downloaded from the CRL. For in-scope systems, the component listings were added to the license renewal database and used to assist in the development of boundary drawings. License renewal boundary drawings were prepared to identify the boundaries of systems in the scope of license renewal. Although not a requirement of the rule, the development of boundary drawings provided additional confirmation of correct system scoping. For mechanical systems, Piping and Instrumentation Diagrams (P&IDs) were used to establish evaluation boundaries of systems and components in scope. The downloaded component listings were added to the license renewal database that was used to assist in component screening.

Certain types of components and commodity items are not identified in the CRL, such as piping, flex hoses, and ventilation ductwork. Procedure LR-C-14, "License Renewal Process," includes a list of components not typically identified in the CRL. Such components and commodity items were identified by review of design drawings and plant walkdowns, and added to the license renewal database.

As described above, CRL component listings were used to prepare boundary drawings and were also included in the license renewal database. For systems in the scope of license renewal, each system component was identified as in-scope, unless during the screening review and the development of boundary drawings it was determined that the component was not required to support the system intended functions. Components that do not support the system intended functions are not in the scope of license renewal and are identified as such in the license renewal database. Components that are not in the scope of license renewal are not shown within the license renewal scope boundary on the system boundary drawing. For example, the Feedwater system is included in the scope of license renewal, but the reactor feed pumps in the feedwater system are not required to support any of the identified intended functions of the feedwater system, and are not in the scope of license renewal. The reactor feed pumps are not shown in the scope of license renewal in the license renewal database or on boundary drawings LR-M-308 sheets 1 and 3.

The license renewal screening methodology identifies the passive, long-lived components subject to aging management review. Active versus passive determinations were made in accordance with 10 CFR 54.21(a)(1)(i) and the guidance of NEI 95-10. Long-lived components were identified in accordance with 10 CFR 54.21(a)(1)(ii) and the guidance of NEI 95-10. Component level intended functions were identified for the components requiring aging management review. The intended function associated with a component is based on the type

of component, and how it is relied upon to support the associated system or structure intended function.

The results of component screening are documented, reviewed and approved on a license renewal screening form. The format of the screening form is defined in Exhibit 6 to procedure LR-C-14, "License Renewal Process." A screening form is prepared for each system in the scope of license renewal, and includes component identification number, component description, active/passive and long-lived determinations, component intended functions and reference to the applicable Aging Management Review report. The screening form will also identify any components that were realigned into the system. The screening form is generated as a report from the license renewal database, where the screening data is entered during the review process.

Conclusion

The above methodology uses controlled documentation sources to assure that all plant systems are reviewed for license renewal scoping. Scoping criteria 10 CFR 54.4(a)(1) and (2) determinations were made using the determinations of the similar questions in the Maintenance Rule. Scoping criterion 10 CFR 54.4(a)(3) is determined by review of the plant documentation associated with applicable regulated events. System intended functions, as defined in 10 CFR 54.4(b), are identified for systems determined to be in the scope of license renewal. Components are screened to identify those that require an aging management review, in accordance with the requirements of 10 CFR 54.21, and component level intended functions are identified. The scoping and screening methodology is consistent with the guidance of NEI 95-10, and identifies the passive, long-lived structures and components subject to an aging management review in accordance with the license renewal rule.

The scoping and screening results are entered in the license renewal database, and are reviewed and approved on scoping and screening forms. Boundary drawings in the form of marked-up P&IDs were prepared, reviewed and approved for the in-scope mechanical systems. In addition to review and approval by the license renewal team, the appropriate Peach Bottom system managers reviewed the scoping and screening forms and boundary drawings.

Electrical System Scoping and Screening Methodology

Identification of Plant Electrical Systems

A comprehensive list of systems to be evaluated for license renewal scoping was produced from the Maintenance Rule Basis documentation. The Maintenance Rule Basis documentation is based on the Component Record List (CRL). The CRL is a highly reliable source for a comprehensive list of electrical systems. The Component Record List (CRL) is the controlled database used to identify plant systems and equipment at Peach Bottom. All plant systems are uniquely identified in the CRL, and each component is assigned to a specific system. The CRL is also the Q-list. The CRL includes a Quality Classification for each component, which is used to identify the safety related components in the plant.

System Scoping

The previously completed Maintenance Rule scoping evaluations were performed on a system basis, for each electrical system identified in the CRL. License Renewal scoping evaluations were also performed on a system basis, for each electrical system. The evaluation against license renewal scoping criteria 10 CFR 54.4(a)(1) and (2) for electrical systems is taken from the corresponding Maintenance Rule scoping criteria. The review of scoping criteria 10 CFR 54.4(a)(1) and (2) is documented in the first two scoping questions on the license renewal scoping form. The answers to these scoping questions were transferred electronically from the Maintenance Rule scoping documentation to the license renewal database, and then confirmed during the license renewal system scoping review. If after review, it was determined that the answer to one of these questions should be changed for license renewal, then the change was documented in the license renewal database and on the license renewal scoping form.

The scoping review form also includes three questions to address license renewal scoping criteria 10 CFR 54.4(a)(3). Systems that are in the scope of license renewal scoping criteria 10 CFR 54.4(a)(3) are identified by review of appropriate plant documentation. For 10 CFR 50.48 (Fire Protection) and 10 CFR 50.63 (Station Blackout), the review is documented in license renewal position papers. For 10 CFR 50.62 (ATWS), the required components are identified in the controlled CRL database. The reviewer uses the position papers and the CRL to answer these three questions.

The equipment within the scope of Environmental Qualification, 10 CFR 50.49, is identified by a controlled data field in the CRL and is addressed in LRA Section 4.4 under the TLAA evaluations. 10 CFR 50.61 (Pressurized Thermal Shock) is not applicable to boiling water reactors.

The results of system scoping are documented, reviewed and approved on a license renewal scoping form. The format of the scoping form is defined in Exhibit 3 to procedure LR-C-14, "License Renewal Process." A scoping form is prepared for each system, and includes references to the applicable UFSAR sections, design drawings and Design Baseline Documents. The form also includes answers to the scoping questions, system intended functions, applicable supporting systems, and whether or not any components were realigned into or out of the system. The scoping form is generated as a report from a computer database, where the scoping data is entered during the review process.

System Boundary Interfaces

System boundary interfaces were examined to ensure that interfacing components were associated with the appropriate system for license renewal. The CRL component assignments within systems are not necessarily based on the functions performed during design basis events. As a result, some non-safety related systems at PBAPS include safety related components associated with the interface with other, safety related systems.

Electrical distribution systems interface with many systems, including many mechanical systems, and the interface point is often an electrical isolation device such as a fuse or circuit breaker. These electrical isolation devices are typically considered as part of the mechanical system because they functionally provide electrical isolation of these systems. These

interfaces were examined to confirm interfacing components had been identified in the correct system for license renewal. For example, a fuse that provides an isolation boundary interface between an out-of-scope mechanical system and an in-scope electrical system would be considered in the scope of license renewal. The fuse would be "realigned" to the in-scope electrical system, and the out-of-scope mechanical system would remain out-of-scope. System boundary realignments are described in more detail in response to RAI 2.1.2-2.

Boundary realignments and any resulting impacts on system level scoping or component screening were reviewed and discussed during the weekly license renewal team meeting. This review assured that the reviewers assigned to the interfacing systems were aware and concurred with the final boundary alignments.

Component Downloads from the CRL

Component listings for non-safety related systems were downloaded from the CRL and reviewed to check for any safety related components. This review assured that components associated with system interfaces such as those described above are captured, regardless of which system they were assigned to in the CRL. Any safety related components found in non-safety related systems were included in the license renewal database. The specific functions of such components were determined by review against the plant Current Licensing Basis, on a case-by-case basis, to identify the appropriate system and system intended functions they are required to support, in accordance with 10 CFR 54.4(b). These component reviews are documented in the individual system scoping evaluation forms, and components are assigned to the appropriate in-scope system in the license renewal database.

Component listings for systems in the scope of license renewal were also downloaded from the CRL, as described below in the discussion of Component Screening.

System Intended Functions

For systems in the scope of license renewal, the system intended functions are identified from the Design Baseline Documents and the UFSAR.

Component Screening

As part of the scoping review, component listings were downloaded from the CRL. For systems in the scope of license renewal, the component listings were added to a license renewal database that was used to assist in component screening.

Certain types of components and commodity items are not identified in the CRL, such as electrical cables and connectors. Procedure LR-C-14 includes a list of components not typically found in the CRL. Such components and commodity items were identified by review of design drawings and plant walkdowns, and added to the license renewal database.

As described above, CRL component listings were included in the license renewal database. For systems in the scope of license renewal, each system component was identified as in-scope, unless during the screening review it was determined that the component was not

required to support the system intended functions. Components that do not support the system intended functions are identified as such in the license renewal database.

The license renewal screening methodology identifies the passive, long-lived components subject to aging management review. Active versus passive determinations were made in accordance with 10 CFR 54.21(a)(1)(i) and the guidance of NEI 95-10. Long-lived components were identified in accordance with 10 CFR 54.21(a)(1)(ii) and the guidance of NEI 95-10. Component level intended functions were identified for the components requiring aging management review. The intended function associated with a component is based on the type of component, and how it is relied upon to support the associated system or structure intended function.

The results of component screening are documented, reviewed and approved on a license renewal screening form. The format of the screening form is defined in Exhibit 6 to procedure LR-C-14, "License Renewal Process." A screening form is prepared for each system in the scope of license renewal, and includes component identification number, component description, active/passive and long-lived determinations, component intended functions and reference to the applicable Aging Management Review report. The screening form will also identify any components that were realigned into the system. The screening form is generated as a report from the license renewal database, where the screening data is entered during the review process.

Conclusion

The above methodology uses controlled documentation sources to assure that all plant systems are reviewed for license renewal scoping. Scoping criteria 10 CFR 54.4(a)(1) and (2) are addressed by utilizing previous system reviews performed for Maintenance Rule. Scoping criterion 10 CFR 54.4(a)(3) is addressed by review of the plant documentation associated with applicable regulated events. Intended functions, as defined in 10 CFR 54.4(b), are identified for systems determined to be in the scope of license renewal. Components are screened to identify those that require an aging management review, in accordance with the requirements of 10 CFR 54.21, and component level intended functions are identified. This scoping and screening methodology is consistent with the guidance of NEI 95-10, and provides reasonable assurance that the passive, long-lived components that should be subject to an aging management review have been identified in accordance with the license renewal rule.

The scoping and screening results are entered in the license renewal database, and are reviewed and approved on scoping and screening forms. An electrical boundary drawing, in the form of marked-up electrical single line drawing, was prepared, reviewed and approved to identify the major power distribution systems within the scope of license renewal. In addition to review and approval by the license renewal team, the appropriate Peach Bottom system managers reviewed the scoping and screening forms and the boundary drawing.

Structural Scoping and Screening Methodology

Identification of Plant Structures

A comprehensive list of structures to be evaluated for license renewal scoping was produced from the Maintenance Rule Basis documentation, Updated Final Safety Analysis Report (UFSAR) and other plant design documentation.

Structure Scoping

For structures, the evaluation against license renewal scoping criteria 10 CFR 54.4(a)(1) and (2) is based on the UFSAR seismic classification. In accordance with the PBAPS UFSAR, structures are classified as seismic Class I or seismic Class II. Seismic Class I structures are those required to remain functional and/or protect vital equipment and systems during and following postulated design basis events. Seismic Class II structures are those whose failure would not result in the release of significant radioactivity and would not prevent reactor shutdown. Seismic Class I structures were included within the scope of license renewal under scoping criterion 10 CFR 54.4(a)(1).

In responding to scoping criterion 10 CFR 54.4(a)(2), consideration is also given to the following:

1. Structural integrity of non-safety related piping systems whose failure could adversely impact a safety related SSC function.

2. Structural integrity of non-safety related SSCs whose failure during a seismic event could cause an interaction with safety related SSCs and potentially result in the failure of the safety related SSCs to perform their intended function(s). This is generally referred to as "Seismic II/I".

With respect to the structural integrity of non-safety related piping, the PBAPS scoping process identified non-safety related piping, which is an extension of the safety related piping beyond the functional boundary (pressure boundary valves). In cases where the non-safety related system is required to structurally support the safety related piping, the non-safety related piping segments and supports, up to the seismic anchor (or equivalent), are categorized as in scope for license renewal.

With respect to seismic II/I, the scoping process involved a systematic review of potential non-safety related/safety related interactions. The UFSAR, licensing correspondence, and design basis documents were relied upon in addressing these interactions. It is important to note that PBAPS, Units 2 & 3 were not originally licensed for "seismic II/I". However seismic II/I concerns were addressed as a result of Unresolved Safety Issue USI A-46, "Seismic Qualification of Equipment in Operating Plants" and considered for license renewal scoping.

For seismic II/I, PBAPS has chosen an area-based approach to scoping. Seismic Class II structural components, mechanical and electrical system supports, foundation, and anchorage located in structures containing safety related systems and components, including the Safe

Shutdown Equipment List (SSEL) credited for USI A-46 resolution, are included in the scope of license renewal pursuant to 10 CFR 54.4 (a)(2).

Structures that are in the scope of license renewal scoping criteria 10 CFR 54.4(a)(3) are identified by review of appropriate plant documentation. For 10 CFR 50.48 (Fire Protection) and 10 CFR 50.63 (Station Blackout), the review is documented in license renewal position papers. For 10 CFR 50.62 (ATWS), the required components are identified in the controlled CRL database. The equipment within the scope of Environmental Qualification 10 CFR 50.49 is identified by a controlled data field in the CRL and is addressed in LRA Section 4.4 under the TLAA evaluations, and 10 CFR 50.61 (Pressurized Thermal Shock) is not applicable to boiling water reactors.

The results of structure scoping are documented, reviewed and approved on a license renewal scoping form. The format of the scoping form is defined in Exhibit 3 to procedure LR-C-14, "License Renewal Process." A scoping form is prepared for each structure, and includes references to the applicable UFSAR sections, design drawings and Design Baseline Documents. The form also includes answers to the scoping questions, structure intended functions, applicable supporting systems, and whether or not any components were realigned. The scoping form is generated as a report from a computer database, where the scoping data is entered during the review process.

Structure Intended Functions

For structures in the scope of license renewal, structure intended functions are identified from the UFSAR.

Identification of Structural Components

Structural component listings were downloaded from the CRL and added to the license renewal database. Certain types of structural components and commodity items are not identified in the CRL, such as equipment pads and pedestals, and equipment supports. Such components and commodity items were identified by review of design drawings and plant walkdowns and added to the license renewal database.

Mechanical and electrical systems may also include some structural components as items in the CRL. The non-safety related mechanical and electrical system downloads (as described above in the electrical and mechanical discussions) were reviewed to identify any structural components that needed to be included in the scope of license renewal. Any such identified structural components were included with the structural system (system 70) in the license renewal database.

Structural Component Screening

The license renewal screening methodology identifies the passive, long-lived components subject to aging management review. Active versus passive determinations were made in accordance with 10 CFR 54.21(a)(1)(i) and the guidance of NEI 95-10. Long-lived components were identified in accordance with 10 CFR 54.21(a)(1)(ii) and the guidance of NEI 95-10. Component level intended functions were identified for the structures and components requiring

aging management review. The intended function associated with a component is based on the type of component, and how it is relied upon to support the associated system or structure intended function.

The results of structural component screening are documented, reviewed and approved on a license renewal screening form. The format of the screening form is defined in Exhibit 6 to procedure LR-C-14, "License Renewal Process." A screening form includes component identification number, description, active/passive and long-lived determinations, intended functions and reference to the applicable Aging Management Review report. The screening form will also identify any components that were realigned into the system. The screening form is generated as a report from the license renewal database, where the screening data is entered during the review process.

Conclusion

The above methodology uses controlled documentation sources to assure that all plant structures and components are reviewed for license renewal scoping. Scoping criteria 10 CFR 54.4(a)(1) and (2) are addressed by utilizing information in the UFSAR. Seismic II/I is also considered under 10 CFR 54.4(a)(2) scoping criterion. Scoping criterion 10 CFR 54.4(a)(3) is addressed by review of the plant documentation associated with applicable regulated events. Intended functions, as defined in 10 CFR 54.4(b), are identified for structures determined to be in the scope of license renewal. Structures and components are screened to identify those that require an aging management review, in accordance with the requirements of 10 CFR 54.21, and component level intended functions are identified. This scoping and screening methodology is consistent with the guidance of NEI 95-10, and provides reasonable assurance that the passive, long-lived structures and components that should be subject to an aging management review have been identified in accordance with the license renewal rule.

The scoping and screening results are entered in the license renewal database, and are reviewed and approved on scoping and screening forms. A structural boundary drawing, in the form of marked-up site plan, was prepared, reviewed and approved to identify the plant structures in the scope of license renewal. In addition to review and approval by the license renewal team, the appropriate Peach Bottom system managers reviewed the scoping and screening forms and boundary drawing.

RAI 2.1.2-2 System Realignment

As discussed and understood during the scoping and screening methodology audit performed December 4-7, 2001, describe the "system realignment" process and the rational for its use. Ensure that the response includes a discussion of how the realignment of components is consistent with the criteria described in implementing plan PLI-001, the LRA, LRC-14, and the five cases discussed during the audit.

Response:

System Boundary Realignment

System boundary realignment is described by use of examples on page 2-5 of the LRA:

> *Interfaces between systems were examined and realigned, as necessary, to ensure that interfacing components were associated with the appropriate system for license renewal. For example, a valve in an out-of-scope system that provides an isolation boundary interface with an in-scope system would be considered in the scope of license renewal. This is an example of system boundary realignment. The valve is "realigned" to the in-scope system, and the remainder of the out-of-scope system remains out-of-scope. Similar realignments are used to address out-of-scope systems that interface with the primary containment boundary.*
>
> *Electrical distribution systems interface with many systems, including many mechanical systems, and the interface point is often an electrical isolation device such as a fuse or circuit breaker. These electrical isolation devices are typically considered as part of the mechanical system because they functionally provide electrical isolation of these systems. These interfaces were examined to confirm interfacing components had been identified in the correct system for license renewal. For example, a fuse in an out-of-scope mechanical system that provides an isolation boundary interface with an in-scope electrical system would be considered in the scope of license renewal. The fuse would be "realigned" to the in-scope electrical system, and the out-of-scope mechanical system would remain out-of-scope.*
>
> *In some cases, components were realigned to support specific intended functions. For example, at PBAPS the main steam isolation valves (MSIVs) are air-operated valves and require compressed gas to perform their intended function. These valves do not rely on the instrument air distribution system, but instead utilize a dedicated instrument air accumulator. Accordingly, the MSIVs instrument air accumulators are required to support the intended function of the MSIVs. For purposes of system scoping, these instrument air accumulators were realigned from the instrument air system to the main steam system.*

The system boundary realignment process can be considered a re-categorization of existing components for license renewal purposes without changes to the Current Licensing Basis or physical changes to the plant. From a system perspective, the out-of-scope systems are not safety related in the PBAPS Current Licensing Basis (CLB).

System boundary interfaces were examined to ensure that interfacing components required to support an in-scope system intended function were associated with the appropriate system for license renewal. The CRL component assignments within systems are often established based on the operational system functions, and not necessarily based on the functions performed during design basis events. As a result, some non-safety related systems at PBAPS include safety related components associated with their interface to a safety related system.

Non-safety related systems that do not meet any of the license renewal scoping criteria from 10 CFR 54.4(a)(1), (2) or (3) are not included in the scope of license renewal. Component listings for these systems were reviewed to check for any safety related components. This review assured that components that interfaced with safety related systems are included in the scope of license renewal, regardless of which system they were assigned to in the CRL. Any safety related components found in non-safety related systems were included in the license renewal database. The specific functions of such components were reviewed against the plant CLB, on a case-by-case basis, to determine the appropriate system and system intended functions they are required to support. These component reviews are documented in the individual system scoping evaluation forms and in the license renewal component database.

The rationale for system boundary realignment was to associate system interfacing components with the appropriate license renewal system level intended functions that they are required to support. This approach allows the appropriate systems and components to be included in the scope of license renewal, based on the intended functions of the system included in the scope of license renewal. The approach is also consistent with Maintenance Rule system scoping. System safety classifications are documented in the Maintenance Rule scoping evaluations, which were used for license renewal scoping as described in the response to RAI 2.1.2-1.

Five general cases of interfacing system component realignment have been identified. These cases are described below, including specific examples. The component realignments are performed in accordance with a Project Level Instruction (PLI-001) that provides guidance to the reviewer for identifying and documenting the realigned components. The results are documented in the license renewal database, and on the scoping and screening forms, as described in procedure LR-C-14.

Case 1 Components Associated with Containment Penetration

The first case is the situation of non-safety related systems that penetrate primary or secondary containment. A non-safety related system that penetrates the containment has containment isolation valves that are required to close under certain design basis events. These containment isolation valves are assigned in the CRL to the non-safety related process system, even though their function is containment isolation during a design basis event. The piping between the containment isolation valves is considered as part of the non-safety related system in plant drawings, etc., but for license renewal purposes this piping is considered to be part of the Containment Isolation system.

Containment isolation valves and the interconnecting piping in non-safety related systems were addressed as part of the Primary Containment Isolation system for license renewal. GALL report section V.C, "Containment Isolation Components" recognizes and addresses this case of realignment: "*The system consists of isolation barriers in lines for BWR and PWR nonsafety systems such as the plant heating, waste gas, plant drain, liquid waste, and cooling water systems.*"

NUREG-1800, "Standard Review Plan – License Renewal" also recognizes and addresses this type of realignment in Section 2.1.3.1 Scoping: "*An applicant may take an approach in scoping and screening that combines similar components from various systems. For example,*

containment isolation valves from various systems may be identified as a single system for purposes of license renewal."

Case 2 Interfaces Between In-scope and Out-of-scope Mechanical Systems

The second case of interfacing system component realignment involves functional interfaces between safety related and non-safety related mechanical systems. Some non-safety related systems have connections with safety related systems. For the non-safety related systems that do not meet any of the license renewal scoping criteria, this interface also becomes an interface between license renewal in-scope and out-of-scope systems. These interfaces were examined to confirm that the components required to support the in-scope system intended functions were included in the scope of license renewal. For mechanical systems, the interfacing components are valves or dampers, and may also include attached segments of piping or ductwork. The non-safety related system has no safety related intended functions. The CRL is the controlled source for component assignments to a specific system. If the CRL includes the interfacing components with the non-safety related out-of-scope system, the components were "realigned" to the in-scope system for license renewal.

This type of realignment has no impact on license renewal system or component intended functions. The intended function of the interfacing components is "pressure boundary" associated with the in-scope process system intended function. An example of this type of realignment is at interfaces between in-scope process systems and out-of-scope sampling systems. In some cases, the interfacing valves are considered in the plant documentation to be sample system valves. These interfacing valves are realigned to the in-scope system for license renewal. For example, the main steam system sample return isolation valves (1J-29698, 1J-29699 on LR-M-351 sheet 1 zone F-2) have been realigned from the sample system to the main steam system, because they are functionally part of the main steam system pressure boundary.

The components subject to an AMR are included in the appropriate tables in LRA Section 2.3. This process assures all components with intended functions are captured for license renewal review.

Case 3 Interfaces Between In-scope Electrical and Out-of-scope Mechanical Systems

The third case involves interfaces between in-scope electrical and out-of-scope mechanical systems. The CRL often identifies electrical isolation devices such as fuses and circuit breakers as belonging to the mechanical system that they feed. There are a number of cases where out-of-scope mechanical systems interfaced with in-scope electrical distribution systems where electrical isolation devices are often assigned to the mechanical system that they interface with. The safety related function of these electrical isolation devices is to protect the power source. These interfaces were examined to confirm that the components required to protect the in-scope electrical system were included in the scope of license renewal. These electrical isolation devices were realigned to the in-scope electrical system. For example, a number of fuses were realigned from the non-safety related Instrument Air system to the safety related Instrument AC System.

Case 4 Components Shared Between In-scope and Out-of-scope Systems

The fourth case of interfacing system component realignment involves components that are shared between two systems, where one system is safety related and in the scope of license renewal, and the other system is not safety related and not in the scope of license renewal.

This case applies only to the Instrument Air and Instrument Nitrogen systems and involves an interface between in-scope and out-of-scope mechanical systems. The Instrument Air and Instrument Nitrogen systems are not safety related at PBAPS and do not have any license renewal system intended functions. These systems are the "normal" operating source for compressed gas for many plant components. Some safety-related plant equipment normally supplied by these systems require a source of compressed gas in order to perform a safety related function during or following design basis events. In these cases, the plant design includes a safety grade backup source of compressed gas to the equipment.

There are three systems that provide safety grade backup gas:

a. Safety Grade Instrument Gas

b. Backup Instrument Nitrogen to ADS

c. Battery And Emergency Switchgear Ventilation System (dedicated gas bottles).

This realignment was necessary because the CRL includes the shared components with the non-safety related out-of-scope system. The license renewal component intended functions are only applicable to the in-scope safety grade backup systems. The pressure boundary function of the shared components is required to support the safety related system intended functions.

The relevant safety grade backup system intended functions are addressed as follows:

1. Components associated with the Safety Grade Instrument Gas system pressure boundary are required to support that system's intended function of "Backup Nitrogen Supply."

2. Components associated with the Backup Instrument Nitrogen to ADS system pressure boundary are required to support that system's intended function of "Backup Nitrogen Supply."

3. Components associated with the Battery And Emergency Switchgear Ventilation system pneumatic control pressure boundary are required to support both of the system's intended functions of "Ventilation" and "Heating." In this case, the safety grade backup is provided by dedicated gas bottles that are components of the Battery And Emergency Switchgear Ventilation system, so a system level intended function related to compressed gas supply is not appropriate.

This case resulted in realignment of safety related shared components from the non-safety related system to the safety related system to support the safety related system intended function for license renewal.

Case 5 Components Required to Support Specific Intended Functions

The fifth case of interfacing system component realignment involves components required to support specific license renewal system intended functions. Some non-safety related systems have functional interface connections with safety related systems, and because of the manner in which the system boundaries are established in the plant documentation, some non-safety related systems may include safety related components required to support a function of a safety related system. From a system level perspective, the non-safety related system does not have any safety related intended functions. The safety related components are functionally part of the safety related system.

This type of realignment is due to the manner in which system boundaries are established in the plant documentation. At system interfaces, the boundaries are usually established based on the "normal" operating system functions, and not necessarily based on the functions performed during design basis events. For example:

1. The Reactor Water Cleanup (RWCU) system normal function involves drawing reactor coolant from the Reactor Recirculation system, processing the water, and then returning the water back to the nuclear system via the Reactor Core Isolation Cooling (RCIC) system connection to the Feedwater system. In the plant documentation, system boundaries are established at the interfaces with the Reactor Recirculation system and the RCIC system on this functional basis. During a design basis event, the RWCU system will be isolated from the reactor coolant pressure boundary. Once isolated, the RWCU system has no safety related functions except for the components required to maintain the reactor coolant pressure boundary or the primary containment boundary. For license renewal, the RWCU system boundary is considered to be at the outboard side of the outboard isolation valves. The RWCU components in the primary containment isolation boundary are realigned to the Primary Containment Isolation system, as described in Case 1. The RWCU components within the reactor coolant pressure boundary are realigned to the Reactor Recirculation system.

2. The non-safety related Instrument Air (IA) system normally provides a source of compressed air to the outboard Main Steam Isolation Valves (MSIV) air actuators. In the plant documentation, the IA system boundary is established at the interface with the MSIV air actuators, on this functional basis. The design for the MSIV air supply includes an air accumulator located close to each isolation valve to provide pneumatic pressure for valve closing in the event of failure of the normal, non-safety grade, air supply. During a design basis event, the accumulator and associated air supply components are isolated from the non-safety grade IA system by a safety related check valve, and become functionally part of the MSIV air actuator. These components support the safety function of the MSIV air actuators, and so they are considered part of the Main Steam system for license renewal. The same condition exists for the inboard MSIV air actuators, except the normal supply of compressed gas is the non-safety related Instrument Nitrogen system.

3. The Residual Heat Removal, Core Spray, High Pressure Coolant Injection and Reactor Core Isolation Cooling pump rooms have safety related room coolers. These room coolers are normally cooled by the non-safety related Service Water system, and are included with the non-safety related Reactor Building Ventilation system in the plant documentation. During a design basis event, these room coolers are supplied cooling from the safety related Emergency Service Water system and function independent of the Reactor Building Ventilation System. The safety function of these coolers is to support the associated safety related equipment in the rooms. These coolers are considered functionally to be part of and realigned to the Residual Heat Removal, Core Spray, High Pressure Coolant Injection or Reactor Core Isolation Cooling system, as applicable for license renewal.

This interfacing system component realignment assures all components required for a system intended function are included in the scope of license renewal. The components are realigned to the system whose intended function they support. The components subject to an AMR are included in the appropriate tables in LRA Section 2.3.

Conclusion

The determination of systems that meet license renewal scoping criteria from 10 CFR 54.4(a)(1), (2) or (3) were initially based on Maintenance Rule Basis Documentation, CRL information, and reviews of regulated events documented in position papers, as described in response to RAI 2.1.2-1. System interfacing components were reviewed to assure that all components required to support a license renewal system intended function were included in the scope of license renewal. Component realignments assured that components and their intended functions are included with the appropriate in scope license renewal system. Component realignment is performed in accordance with the guidance provide in Project Level instruction PLI-001. All component realignments are documented in the license renewal database and on the approved license renewal scoping and screening forms, in accordance with procedure LR-C-14.

RAI 2.1.2-3 **System and Structure Scoping Criteria (Seismic II/I)**

An applicant needs to consider nonsafety-related (NSR) piping systems which are not connected to safety-related (SR) piping, but have a spatial relationship such that their failure could adversely impact on the performance of an intended safety function. For this piping system configuration, the applicant has two options when performing its scoping evaluation; a mitigative option or a preventive option. With respect to the mitigative approach, the applicant must demonstrate that plant mitigative features (e.g., pipe whip restraints, jet impingement shields, spray and drip shields, seismic supports, flood barriers, etc.) are provided which protect SR structures, systems and components (SSCs) from a failure of NSR piping segments. When evaluating the failure modes of NSR piping segments and the associated consequences, age-related degradation must be considered. The staff notes that pipe failure evaluations typically do not consider age-related degradation when determining pipe failure locations. Rather, pipe

failure locations are normally postulated based on high stress. Industry operating experience has shown that age-related pipe failures can, and do, occur at locations other than the high-stress locations postulated in most pipe failure analyses. Therefore, to utilize the mitigative option, an applicant should demonstrate that the mitigating devices are adequate to protect SR SSCs from failures of NSR piping segments at any location where age-related degradation is plausible. If this level of protection can be demonstrated, then only the mitigative features need to be included within the scope of license renewal, and the piping segments need not be included within the scope.

However, if an applicant cannot demonstrate that the mitigative features are adequate to protect safety-related SSCs from the consequences of non-safety-related pipe failures, then the applicant should utilize the preventive option, which requires that the entire non-safety-related piping system be brought into the scope of license renewal and an AMR be performed on the components within the piping system. Finally, an applicant may determine that in order to ensure adequate protection of the SR SSC, a combination of mitigative features and NSR SSCs must be brought within scope. Regardless, it is incumbent upon the applicant to provide adequate justification for the approach taken with respect to scoping of NSR SSCs in accordance with the Rule. Therefore the applicant is requested to identify which option is used for NSR piping systems which are not connected to SR piping, but have a spatial relationship such that their failure could adversely impact on the performance of an intended safety function. For each NSR piping system which would normally be included within the scope of license renewal, but is excluded because mitigative features have been credited for protecting SR SSCs from the failure of the NSR piping system, please identify the following:

a. the mitigative feature(s) that is credited for protection.

b. the hazard (e.g., failure mechanisms and postulated failure locations) for which the mitigative feature(s) is providing protection.

c. a summary discussion (including references, such as reports, analyses, calculations, etc.) of the basis for the conclusion that the mitigative feature(s) is adequate to protect SR SSCs.

Response:

The response will be provided by May 27, 2002.

RAI 2.1.2-4

Given the methodology used to identify piping systems that meet the 54.4(a)(2) scoping criterion, there may be other non-safety-related systems, structures or components (NSR SSCs) which should be included within the scope of license renewal. For these other NSR SSCs an applicant can exercise the mitigative option, the preventive option, or a combination, in order to address the scoping issue. For each NSR SSC identified as meeting the 54.4(a)(2) scoping criterion, list which option or combination of options is being credited. For those NSR SSCs which exercise the mitigative option further indicate:

a. the mitigative feature(s) that is credited for protection,

b. the hazard (e.g., failure mechanisms and postulated failure locations) for which the mitigative feature(s) is providing protection, and

c. a summary discussion (including references, such as reports, analyses, calculations, etc.) of the basis for the conclusion that the mitigative feature(s) is adequate to protect safety-related SSCs.

Response:

The response will be provided by May 27, 2002.

2. Appendix A of the PBAPS LRA – Updated Final Safety Analysis Report Supplement

RAI A.2-1 Quality Assurance for Aging Management Programs

Section A.2, "Quality Assurance for Aging Management Programs," of the NRC's Standard Review Plan for License Renewal (SRP-LR), states a license renewal applicant to demonstrate that the effects of aging on structures and components subject to an aging management review will be adequately managed to ensure that their intended functions will be maintained consistent with the current licensing basis of the facility for the period of extended operation. Consistent with this approach, the applicant's aging management programs should contain the attributes of corrective action, confirmation process, and administrative controls in order to ensure proper management of the aging programs.

However, Appendix A, "Updated Final Safety Analysis Report Supplement," of the PBAPS LRA, does not provide a description of how the Quality Assurance Program (QAP) specifically addresses these attributes. Therefore, the applicant is requested to provide a description of how the QAP specifically addresses these attributes for the aging management programs during the period of extended operation.

Response:

Section A.1.17 has been added to read as follows:

Appendix A
UPDATED FINAL SAFETY ANALYSIS REPORT (UFSAR) SUPPLEMENT

A.1.17 Corrective Action Program

The Corrective Action Program provides for evaluation of aging effects and significant operating events and requires that reasonable actions be taken to enhance programs and activities to prevent future occurrences. The plant condition reporting process applies to all plant structures, systems and components within the scope of license renewal. Corrective action is initiated following the identification of conditions adverse to quality. An effectiveness review is completed for all root cause analysis corrective actions to prevent recurrence and other items as assigned by the PBAPS Management Review Committee. If corrective actions to prevent recurrence are determined to be ineffective, this deficiency is addressed by the existing condition report or a new condition report is originated to address the deficiency and initiate

resolution. Administrative controls are in place for existing aging management programs and activities and for the currently required portions of enhanced programs and activities. Administrative controls will also be applied to new and enhanced programs and activities as they are implemented. As a minimum, these programs and activities are or will be performed in accordance with written procedures. Those procedures are or will be reviewed and approved in accordance with PBAPS's 10CFR50, Appendix B, QA Program.

3. Appendix B of the PBAPS LRA

RAI B.1-1 **Aging Management Activities**

Appendix B to the LRA provides an aging management activity summary for each unique structure, component, or commodity group determined to require aging management during the period of extended operation. Section B.1 of the LRA includes a description of each attribute associated with the described Aging Management Activities. However, the LRA does not provide a description of each of these attributes necessary to ensure consistency between the SRP definitions and those applied by the applicant. Also, Appendix B does not provide a description of how the QAP specifically addresses corrective action, confirmation process, and administrative controls for which credit is being sought. Therefore, based on the staff's review of Appendix B, Section B.1, of the PBAPS LRA, the applicant is requested to provide:

1. A general description of how the definitions established for each of the 10 attributes identified within Section B.1, "Existing Aging Management Activities," is consistent with the definitions described in Section A.1, "Aging Management Review - Generic," Table A.1-1, "Elements of an Aging Management Program for License Renewal," of the SRP-LR.

2. A description of how the Exelon 10 CFR 50, Appendix B, QAP program specifically addresses corrective action, confirmation process, and administrative controls for the aging management programs at the PBAPS during the period of extended operation.

3. A description of how the Exelon 10 CFR 50, Appendix B, QAP is consistent with the summary in Section A.2 of the SRP-LR and how it addresses the implementation of corrective action, confirmation process, and administrative controls for both safety-related and non-safety-related structures, systems, and components that are within the scope of license renewal.

Response:

1. The definitions of each of the 10 attributes identified within Appendix B to the LRA are consistent with the definitions described in Table A.1-1 of the SRP-LR. Exelon has not taken exception or deviation from any of the descriptions to the 10 attributes described in Table A.1-1 of the SRP-LR.

2. The following information is provided to clarify the information contained in the introduction to Appendix B on page B-1:

   The Exelon corrective action program, which determines the cause of and corrective actions for conditions adverse to quality, was credited for license renewal. The corrective

action program also determines corrective action taken to preclude repetition of significant conditions adverse to quality. Exelon procedure AD-AA-101, "Processing of Procedures and T&RMs," (administrative controls) governs creation and revision of standard or site-specific procedures and was the basis for attribute (9) in all PBAPS LRA Appendix B programs. The Exelon corrective action program and Exelon procedure AD-AA-101 are in accordance with the PBAPS Quality Assurance Program, which complies with 10CFR50, Appendix B. The Exelon corrective action program and Exelon procedure AD-AA-101 apply to all of the PBAPS programs credited for license renewal. See Section B.1.17 for a description of how corrective actions, confirmation process, and administrative controls are met for all programs.

3. Section B.1.17 has been added to read as follows:

Appendix B
AGING MANAGEMENT PROGRAMS

B.1.17 Corrective Action Program

ACTIVITY DESCRIPTION

Exelon has established and implemented a Quality Assurance (QA) Program for PBAPS that conforms to the criteria set forth in 10CFR50, Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants". The QA Program addresses all aspects of quality assurance at PBAPS.

The elements of the PBAPS QA Program that are most pertinent to the aging management programs credited for license renewal are corrective action and document control. These elements are discussed in Appendix D of the PBAPS Updated Final Safety Analysis Report and outlined below. Corrective action and document control requirements apply to all structures, systems, and components (SSC) within the scope of license renewal.

EVALUATION AND TECHNICAL BASIS

(1) Scope of Activity: The plant condition reporting process applies to all plant systems, structures and components (both safety-related and non-safety-related) within the scope of license renewal. Administrative controls are in place for existing aging management programs and activities and for the currently required portions of enhanced programs and activities. Administrative controls will also be applied to new and enhanced programs and activities as they are implemented. As a minimum, these programs and activities are or will be performed in accordance with written procedures. Those procedures are or will be reviewed and approved in accordance with PBAPS's 10CFR50, Appendix B, QA Program.

(2) Preventive Actions: The Corrective Action Program provides a means to correct conditions identified as being adverse to quality. There are no preventive or mitigative attributes specifically credited for this program.

(3) Parameters Monitored/Inspected: No specific parameters are inspected or monitored as

part of this program. Generally, when parameters inspected or monitored by other plant programs indicate a condition adverse to quality, the Corrective Action Program provides a means to correct the identified condition.

(4) Detection of Aging Effects: Detecting aging effects is not part of the Corrective Action Program. The Corrective Action Program provides a means to address the aging effects identified by other aging management activities.

(5) Monitoring and Trending: The corrective action process is monitored and trended to ensure that corrective actions taken are adequate and timely. Significant and non-significant conditions are trended. PBAPS monitors significant conditions that are adverse to quality and requires a formal cause determination and corrective actions to prevent recurrence. PBAPS assesses the results of actions taken to correct deficiencies occurring in SSC or method of operation that affect nuclear safety at least once every 24 months.

(6) Acceptance Criteria: The Corrective Action Program does not include specific acceptance criteria for in scope components. Generally, when the acceptance criteria of other aging management activities are not met, the Corrective Action Program provides a means to ensure appropriate corrective actions are taken.

(7) Corrective Actions: Corrective action is initiated following the identification of conditions adverse to quality, and is documented as required by Exelon procedure LS-AA-125. The corrective action process is described in Section 17.2.16 of the PBAPS UFSAR. The various components of corrective action provide for timely corrective actions, including determination of the cause of the condition and corrective action taken and documented of significant conditions adverse to quality to preclude repetition. The PBAPS QA Program ensures the quality of activities affecting safety-related activities, structures, systems, and components. In accordance with Exelon procedure LS-AA-125, condition reports are analyzed for adverse trends. Any identified adverse trends are reported to the appropriate department manager for initiation of a condition report.

(8) Confirmation Process: Condition reports are reviewed by supervisors to ensure Operations Shift Management is contacted to discuss potential operability or regulatory reportability of the condition. Those items determined to be significant conditions adverse to quality are also reviewed by the Plant Operation Review Committee, Nuclear Safety Review Board, and appropriate levels of management, as described in UFSAR Section 17.2.16.1. An effectiveness review is completed for all root cause analysis corrective actions to prevent recurrence and other items as assigned by the PBAPS Management Review Committee. If corrective actions to prevent recurrence are determined to be ineffective, then this deficiency is addressed by the existing condition report or a new condition report is originated to address the deficiency and initiate resolution.

(9) Administrative Controls: Activities affecting quality are prescribed by documented instructions, procedures, drawings, or specifications of a type appropriate to the circumstances and are accomplished in accordance with these instructions, procedures, drawings or specifications. They contain appropriate acceptance criteria and documentation requirements for determining whether important activities have been satisfactorily accomplished. The document control process is described in Section 17.2.6 of the PBAPS UFSAR. Exelon

procedure AD-AA-101, "Processing of Procedures and T&RMs," establishes review and administrative controls governing creation or revision of existing standard or site-specific procedures and Training & Reference Material (T&RM).

(10) Operating Experience: The Corrective Action Program provides for evaluation of aging effects and significant operating events and requires that reasonable actions be taken to enhance programs and activities to prevent future occurrences. Review of the "Operating Experience" attribute for the other aging management programs described in PBAPS LRA Appendix B provides numerous examples of the Corrective Action Program being used to address and correct aging related conditions adverse to quality.

SUMMARY

Exelon has established and implemented a Quality Assurance (QA) Program for PBAPS that conforms to the criteria set forth in 10CFR50, Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants". The QA Program addresses all aspects of quality assurance at PBAPS.

Based on the application of industry standards and PBAPS operating experience, there is reasonable assurance that the Corrective Action Program will adequately manage the aging effects so that the intended functions will be maintained consistent with the current licensing basis for the period of extended operation.

REFERENCES

1. Peach Bottom Atomic Power Station Updated Final Safety Analysis Report, Units 2 and 3.
2. Exelon Procedure LS-AA-125, "Corrective Action Program (CAP) Procedure"
3. Exelon Procedure AD-AA-101, "Processing of Procedures and T&RMs"