ATTACHMENT 1

PEACH BOTTOM ATOMIC POWER STATION

UNITS 2 AND 3

Docket Nos. 50-277
50-278

License Nos. DPR-44
DPR-56

TECHNICAL SPECIFICATIONS CHANGE REQUEST
No. 89-17

"Elimination of Accelerated Testing Requirements for Core and Containment Cooling Systems"

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Docket Nos. 50-277
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SECTION A

Introduction:

Licensee proposes, in SECTION B, that the requirements in Technical Specifications Section 4.5, "Core and Containment Cooling Systems Surveillance Requirements," to demonstrate that other cooling systems are operable after one or more cooling systems are made or found to be inoperable be eliminated. These requirements are hereafter referred to as "accelerated testing" requirements. Licensee proposes miscellaneous Technical Specifications administrative changes, in SECTION C. Licensee proposes, in SECTION D, changes to Section 3.5 of the Technical Specifications to clarify the operability requirements of high pressure core cooling systems. Pages 59, 120, 125, 126, 128, 128a, 128b, 129, 130, 131, 134, 135, 136, 138, 139, 141, 205, 209, 210, 214, 216a-1, 216a-5, 240t, 254, 256, and 257 (contained in Attachment 2) would change as a result of the proposed license amendment. The material on page 125a would be relocated to page 125, and page 125a would be deleted.

SECTION B

Description of Changes:

Currently, Peach Bottom Technical Specifications require that certain redundant core and containment cooling systems or subsystems be demonstrated to be operable (tested) during time periods when one or more core and containment cooling system or subsystem is inoperable. This application proposes that these accelerated testing requirements be eliminated. Instead, the redundant systems or subsystems will be verified to be operable by administratively checking

equipment status relative to operability requirements. Justification for this change is provided in the following sections of this application.

Table 1A summarizes the accelerated testing requirements that Licensee seeks to eliminate. The Technical Specifications Sections listed in the right hand column of the table would be deleted. The following acronyms are used in Table 1A and throughout this application:

CS - Core Spray (low pressure)
LPCI - Low Pressure Coolant Injection
HPSW - High Pressure Service Water
HPCI - High Pressure Coolant Injection (steam turbine driven)
RCIC - Reactor Core Isolation Cooling (steam turbine driven)
ADS - Automatic Depressurization System
ECCS - Emergency Core Cooling Systems: CS, LPCI, HPCI and ADS

Corresponding changes to the Bases for Sections 3.5 and 4.5 are also proposed to remove references to accelerated testing, and to clarify, on page 141, how redundant systems can be "verified" to be operable when one or more cooling system is made or found to be inoperable. Additionally, the reference to "quantitative reliability analysis", on page 141, is being deleted because the analysis was performed prior to initial plant licensing (1973-1974) and has not been updated. Operational experience since that time has demonstrated the acceptability of current testing intervals, as discussed further in this application, and it is no longer appropriate to cite the former reliability analysis as a basis for the testing intervals.

Attachment 2 contains the revised Technical Specification pages with bars in the page margins denoting changes.

Background and Precedents for Changes:

Peach Bottom Atomic Power Station Technical Specification surveillance testing requirements were established in the early 1970s when there was a lack of nuclear plant operating history on which to base the requirements. Consequently, the frequency of testing was established in a most conservative fashion, and testing of operable systems during periods when a redundant system or subsystem was not available was considered prudent. This was thought to be the best way to provide confidence that systems would perform their design function if called upon; however, the industry's perspective has changed. Accelerated testing is no longer considered necessary to assure operability of systems, rather, routine testing of these systems is sufficient to assure a high level of reliability and availability. Additionally, the fact that one system becomes inoperable is not alone a reason to question the operability of other systems. The nature of and cause for each condition of inoperability should be individually evaluated to identify generic implications, if any, and then to determine whether testing of other systems is warranted.

This change in perspective has been reflected in the NRC's "Standard Technical Specifications for General Electric Boiling Water Reactors (BWR/5)", NUREG-0123, Rev. 3, which do not require accelerated testing of core and containment cooling systems. The NRC Region I Integrated Assessment Team Inspection Report (No. 50-277;278/89-81) dated March 6, 1989 states on page 81 that "...the TS for ECCS and DGs are outdated in that they require testing of systems when one component/subsystem is declared inoperable...This type of

testing is undesirable since it is excessive." Generic Letter 87-09 concerning the applicability of Standard Technical Specifications limiting conditions for operation and surveillance requirements contains a NRC Staff Position which is applicable to the change requested herein. This Staff Position is on page 4 of Enclosure 1 to Generic Letter 87-09 and it addresses the significance of surveillances not performed within the required time frame. The Staff Position states: "It is overly conservative to assume that systems or components are inoperable when a surveillance requirement has not been performed. The opposite is in fact the case; the vast majority of surveillances demonstrate that systems or components in fact are operable..."

The NRC has licensed many facilities without accelerated testing requirements for core and containment cooling systems, including Philadelphia Electric Company's Limerick Generating Station Units 1 and 2. Also, the NRC issued License Amendment Nos. 107/102 (dated August 10, 1989) to Commonwealth Edison to remove emergency core cooling systems accelerated testing requirements from the Dresden Unit 2 and Unit 3 Technical Specifications. The Dresden units are General Electric Type 4g BWRs with Mark I containments, as are both Peach Bottom units.

Safety Assessment:

This Technical Specification change would delete testing requirements which are not necessary to provide confidence that systems are operable because (1) routine surveillance testing provides assurance of a high level of reliability, (2) Peach Bottom's routine surveillances are substantially

equivalent to those of Standard Technical Specifications, (3) accelerated tests do not contribute any additional benefit over that provided by ASME Section XI testing required by 10 CFR 50.55a and other routine surveillance testing, and (4) for the reasons discussed below accelerated testing could actually decrease the availability of systems.

Each time a system is operated it is vulnerable to damage from human error or unpredictable plant operating occurrences, and there is always the possibility that the system will not be restored to the fully "stand-by" condition following test completion. Each test conducted causes component wear and cyclic stresses on materials, which can increase the frequency of failures and increase the frequency or duration of system outages for maintenance work. Furthermore, when tested, systems are often lined up such that they are vulnerable to failure modes to which they are not vulnerable in their normal standby condition. Thus, lining up the redundant system for accelerated testing creates the risk of this redundant system also failing, and in some cases the potential failure of the redundant system is related to the test itself and not an indication that the system would have failed if it had been needed.

The performance of accelerated tests is a burden on the operations, technical support and maintenance staffs. The requirements for accelerated testing are a disincentive for removing systems from service to perform preventive maintenance that could result in a net increase in system availability. Accelerated tests are required at times when the staffs' attention and resources would be more appropriately focused on resolving the problem that brought about the need for the testing (or implementing more

beneficial compensatory measures) especially since the great majority of accelerated tests are completed with satisfactory results. A review of Unit 2 and 3 ECCS, RCIC and HPSW accelerated test results for approximately the past eight years revealed that, on the average, the system or subsystem passed the test 98% of the time. Several of the systems and subsystems did not fail an accelerated test during the entire period.

A review of the routine surveillance testing requirements in the Peach Bottom Technical Specifications has confirmed that Peach Bottom's core and containment cooling systems are being tested at a level consistent with Standard Technical Specifications. This provides adequate assurance that the systems will be operable when required. Monthly pump and motor-operated valve operability tests are required by Peach Bottom Technical Specifications in addition to the quarterly ASME Section XI tests required by Standard Technical Specifications. For each Surveillance Requirement in Sections 4.5.1 (ECCS), 4.7.1.1 (Residual Heat Removal Service Water) and 4.7.4 (RCIC) of NUREG-0123, Rev. 3, a similar or equivalent Surveillance Requirement exists in the Peach Bottom Technical Specifications, with one minor exception. Table 1B clarifies, where necessary, how Peach Bottom compares to Standard Technical Specification Surveillance Requirements in Sections 4.5.1, 4.7.1.1 and 4.7.4, and explains the one exception (Comparison No. 8).

Significant Hazards Consideration Determination:

Licensee proposes that the changes requested herein do not involve significant hazards considerations for the following reasons:

i) The proposed revisions do not involve a significant increase in the probability or consequences of an accident previously evaluated because the availability of core and containment cooling systems will not be reduced, and the design and performance of the systems are not being changed. The ECCS are provided to mitigate the consequences of a loss of coolant accident (LOCA) and RCIC is a non-safety related water injection system; therefore, their availability has no bearing on the probability of occurrence of a LOCA. Reducing the testing frequency will have no effect on the ability of these systems' piping and isolation valves to withstand design pressures. HPSW is provided to remove heat after a design basis event and does not contain piping connected to the reactor vessel or penetrating the primary containment; thus, HPSW has no bearing on the probability of occurrence of a design basis accident. Because only the frequency of testing these systems is being changed, not any systems themselves nor any test methods, there will be no affect on accident precursors and, thus, no affect on the probability of occurrence of previously evaluated accidents.

Because, the systems are not being changed, their ability to perform their design functions is not adversely affected. The remaining Technical Specification surveillance requirements provide adequate assurance that the systems will be operable when required. Therefore, the consequences of previously evaluated accidents will not be increased.

ii) The proposed revisions do not create the possibility of a new or different kind of accident from any accident previously evaluated because these changes do not introduce any new modes of operation or testing and no physical changes are being made to the plant; therefore, no new or different kind of accident could be initiated.

iii) The proposed revisions do not involve a significant reduction in a margin of safety because the testing requirements that will remain in the Technical Specifications provide adequate assurance that the systems will be operable when needed. Since the reduction of testing may increase system availability, margins of safety may be increased. Further, because the performance of the systems is not being changed, margins of safety associated with their ability to perform their design functions will not be reduced.

SECTION C

Description of Miscellaneous Administrative Changes:

License Amendment Nos. 110 and 113 (Units 2 and 3, respectively) replaced the section of the Technical Specifications which was numbered 6.9.2 with the section that was numbered 6.9.3. However, numerous references to Specification 6.9.3 (which is now numbered 6.9.2) still exist in the Technical Specifications. These references to 6.9.3 need to be changed to 6.9.2 on pages 205, 209, 210, 214, 216a-1, 216a-5 and 240t. On page 240t there are also references to the section that was deleted by Amendments 110/113 (the former Specification 6.9.2). These references should be deleted.

Additional changes are proposed to correct inconsistencies between Technical Specifications reporting requirements and 10 CFR 50.4, "Written Communications", which became effective on January 5, 1987. The regulation (10 CFR 50.4(f)) states that it supersedes and replaces any conflicting technical specification requirements in effect on January 5, 1987. Consequently, technical specification requirements to send reports to certain NRC Offices, contrary to the requirements of 10 CFR 50.4, need to be replaced with references to 10 CFR 50.4 on pages 240t, 254, 256 and 257.

License Amendment Nos. 102 and 104 (Units 2 and 3, respectively) renumbered the specifications in Section 3.8 of the Technical Specifications. Apparently, at this time errors were introduced in Specification 6.9.2 (page 257), which references several specifications from Section 3.8. One of the referenced specifications, 3.8.C.6, contains no reportability requirements and, thus, is not applicable to 6.9.2. Therefore, the reference to 3.8.C.6 in 6.9.2 should be deleted. Specifications 3.8.C.5 and 3.8.E.1.b are applicable to 6.9.2 and are not referenced. Therefore, references to Specifications 3.8.C.5 and 3.8.E.1.b should be added to Specification 6.9.2.

Changes are proposed to the Bases of Sections 3.5.B and 4.5 to delete unnecessary and outdated information and add more appropriate and more complete information regarding Core and Containment Cooling Systems surveillances. The last paragraph of the Bases of Section 3.5.B (Containment Cooling Systems Limiting Conditions for Operation, page 136) concerns pump capacity testing, and explains a contrast between pre-service pump tests and in-service pump tests. This does not belong in the Bases for Limiting Conditions For Operation (LCOs)

and no other Bases for Section 3.5 (Core and Containment Cooling Systems LCOs) contain such information. Furthermore, this paragraph implies that pump motor current may be used as a test criterion, which is no longer an acceptable practice. Based on this and because the Bases for the Core and Containment Cooling Systems Surveillance Requirements (Section 4.5) lack a complete discussion of the systems capacity tests, Licensee proposes that the last paragraph of the Bases for Section 3.5.B be deleted and that a new paragraph which more completely describes periodic testing of the Core and Containment Cooling Systems be added to the Bases for Section 4.5 (page 141). This new paragraph merely references the appropriate design basis documents and ASME Section XI plan, and clarifies the purpose of the tests.

Changes are proposed to the Bases for Sections 3.5.C (HPCI) and 3.5.D (RCIC) to clarify the RCIC operability requirements. Currently, the HPCI Bases, on page 138, partially address RCIC because the systems are similar in function. The Bases acknowledge that HPCI, while required to be operable when reactor pressure is greater than 105 psig, "is not designed to operate until reactor pressure exceeds 150 psig and is automatically isolated before reactor pressure decreases below 100 psig." Since the same is true of RCIC, Licensee proposes that the associated statements be extended to RCIC as well. This results in changes to the first and second paragraphs on page 138. This change merely provides clarifying information for RCIC identical to information currently provided for HPCI, and does not change the intent of the specifications.

Licensee proposes to reinsert material into the Technical Specifications Bases that was removed apparently by error. The material on page

135 (Section 3.5.A Bases, continued) was deleted from the Unit 2 Technical Specifications by Amendment No. 23 and from the Unit 3 Technical Specifications by Amendment No. 27; however, the associated License Amendment Applications did not request that the material on page 135 be removed and the information is still applicable to the Technical Specifications. Therefore, Licensee proposes that page 135 be restored in the Technical Specifications appropriately modified to reflect the elimination of accelerated testing requirements (consistent with the proposal of Section B of this application). The manner in which Reference (1), "Guidelines for Determining Safe Test Intervals and Repair Times for Engineered Safeguards" was addressed on page 135 should be changed since one of the author's assumptions was that accelerated testing would be performed. When the material on page 135 was deleted it included the following statement: "The method and concept are described in reference (1)". The "method" is not affected by eliminating accelerated testing since it is reasonable to conclude that redundant systems are operable without being tested. Thus, our established repair times are valid. However, the author's "concept" will no longer be fully applicable to Peach Bottom since Reference (1) endorses accelerated testing. Therefore, Licensee proposes that the Bases state that the repair times were established "using the methods described in Reference (1)." References to accelerated testing that existed on this page should also be deleted and references to the Bases for Section 4.5 should be added to be consistent with Section B of this application. Also, the words, "and the diesel generators" that existed in the second paragraph should be deleted because Section 3.5.A does not and is not intended to address the diesel generators.

Changes are proposed to the Bases of the Standby Liquid Control System Technical Specifications on page 120 to reflect the recently adopted practice of normally using pre-mixed dry sodium pentaborate to prepare the control solution rather than mixing borax and boric acid to create the solution. This does not affect the Technical Specifications for the solution; only the Bases need to be changed to update the description of the solution preparation method.

License Amendment Nos. 87 for both Units added a footnote to page 125 specifying the criteria to be applied for satisfying the Core Spray pump flow surveillance pending completion of a modification to facilitate testing the pumps one at a time. This note should be removed since the associated modification has been completed on both Units, and the note is no longer needed.

Amendment No. 91 to the Unit 3 Technical Specifications added a footnote to page 126 which temporarily extended the allowable out-of-service time of Specification 3.5.A.5. This note should be removed since it expired on November 24, 1982 and is no longer applicable.

License Amendment Nos. 112 and 116 (Units 2 and 3, respectively) deleted Table 3.2.E from the Technical Specifications because it contained requirements that were redundant to the requirements of LCOs Section 3.6.C. However, LCOs Section 3.2.E, "Drywell Leak Detection" on page 59 still references Table 3.2.E. Licensee proposes that this error be corrected by changing the reference in Section 3.2.E from "Table 3.2.E" to "Section 3.6.C, Coolant Leakage".

The following editorial changes are also proposed.

Page 125: Replace capital "P" of word "Pump" in Specification 4.5.A.1(d) with a lower case "p".

Page 130: Substitute "Subsystem" for "Sub-System" wherever "Sub-System" appears, for consistency throughout Technical Specifications.

Page 130: Substitute "RCIC Subsystem" and "HPCI Subsystem" for "RCICS" and "HPCIS", respectively, in Section 3.5.D.2 because these acronyms are not commonly used in the Technical Specifications.

Page 136: Replace the words "for this equipment" with "for two HPSW pumps" in the following statement in the Bases for Section 3.5.B: "Loss of margin should be avoided and the equipment maintained in a state of operability so a 30-day out-of-service time is chosen for this equipment." This statement is currently vague. The proposed change merely makes it clear what "this equipment" is and achieves consistency with LCO 3.5.B.2.

Page 138: Correct last phrase in Bases for Section 3.5.D to state "an allowable repair time of 1 week

is specified." The Bases has always been incorrect in stating "1 month" rather than the 1 week to which LCO 3.5.D.2 has always limited the repair time.

Page 138 (Unit 3 only): Correct the misspelling of the word "considered" in the Bases for Section 3.5.E.

Page 141: Add the words "sound engineering" to qualify the term "judgment" in the Bases for Section 4.5. This is supported by Section B of this application.

Page 141: Correct the misspelling of the word "caused" in the Bases for Sections 4.5 I&J.

Page 210: Begin a new sentence with the words "The report shall identify..." to improve readability by eliminating a run-on sentence.

Attachment 2 contains the revised Technical Specification pages with bars in the page margins denoting changes.

Significant Hazards Consideration Determination:

The NRC has provided guidance concerning the application of the standards for determining whether license amendments involve significant hazards considerations by providing examples in 51 FR 7751. An example (Example i) of a change that involves no significant hazards considerations is "a purely

administrative change to technical specifications: for example, a change to achieve consistency throughout the technical specifications, correction of an error, or a change in nomenclature". The changes requested herein conform to this example.

Licensee proposes that the changes requested herein do not involve significant hazards considerations for the following reasons:

i) The proposed revisions do not involve a significant increase in the probability or consequences of an accident previously evaluated because they do not affect operations, equipment, or any safety-related activity. Thus, these administrative changes cannot affect the probability or consequences of any accident.

ii) The proposed revisions do not create the possibility of a new or different kind of accident from any accident previously evaluated because these changes are purely administrative and do not affect the plant. Therefore, these changes cannot create the possibility of any accident.

iii) The proposed revisions do not involve a significant reduction in a margin of safety because the changes do not affect any safety related activity or equipment. These changes are purely administrative in nature and increase the probability that the Technical Specifications are correctly interpreted by adding clarifying information, deleting inappropriate information, and correcting errors. Thus, these changes cannot reduce any margin of safety.

SECTION D

Description of Changes:

Licensee proposes to change the operability requirements for HPCI, RCIC and ADS to make it clear that these systems need not be operable when the reactor vessel is subjected to hydrostatic pressure, such as during required reactor vessel hydrostatic testing. This clarification is accomplished simply by adding the word "steam" to LCOs 3.5.C.1, 3.5.D.1 and 3.5.E.1. Each of these LCOs would now state that the system shall be operable whenever there is irradiated fuel in the reactor vessel and "reactor steam pressure is greater than 105 psig..."

Attachment 2 contains the revised Technical Specification pages with bars in the page margins denoting changes.

Safety Assessment:

The HPCI and RCIC Systems are neither intended to be operable nor capable of being operable without reactor steam because they use reactor steam turbine driven pumps. HPCI and RCIC are automatically isolated when reactor water level is greater than +45 inches indicated level. During the reactor vessel hydrostatic test the vessel is completely flooded (well above +45 inches).

ADS is intended to act in conjunction with the low pressure core standby cooling systems for reflooding the core following small breaks in the nuclear system process barrier (UFSAR Section 4.4.1). ADS uses five of the nuclear system safety/relief valves to relieve the high pressure nuclear steam

to the suppression pool (UFSAR Section 6.4.2). When the coolant in the vessel is static liquid and no boiling is occurring, no high pressure relief capability is needed.

This change does not alter, in actuality, the Technical Specification operability requirements for HPCI, RCIC and ADS. Rather this change merely removes vagueness from the LCOs without changing the meaning or intent of the LCOs. The Technical Specifications of many BWRs state that the pressure at which these systems are required is "steam" pressure. The Technical Specifications of Philadelphia Electric Company's Limerick Generating Station Units 1 and 2, for example, state that HPCI, RCIC and ADS need not be operable when "reactor steam dome pressure" is less than 200 psig (HPCI), 150 psig (RCIC), and 100 psig (ADS).

Significant Hazards Consideration Determination:

Licensee proposes that the changes requested herein do not involve significant hazards considerations for the following reasons:

1) The proposed revisions do not involve a significant increase in the probability or consequences of an accident previously evaluated because the changes merely make the operability requirements for HPCI, RCIC and ADS more explicit and do not change the intent of the Technical Specifications. Specifying "steam" pressure is consistent with the function of the systems as described in the Technical Specification Bases and UFSAR. Thus, these changes do not affect any operations or plant equipment and, consequently, cannot affect the probability or consequences of any accident.

ii) The proposed revisions do not create the possibility of a new or different kind of accident from any accident previously evaluated because these changes do not introduce any new requirements, delete any existing requirements, or change, in actuality, any existing requirements. Therefore, no new operational modes, or any unevaluated activities or conditions could be introduced by these changes. No new or different kind of accident could possibly be created.

iii) The proposed revisions do not involve a significant reduction in a margin of safety because, in actuality, the Technical Specification operability requirements are not being changed. The Specification affected will be interpreted after the revision exactly the same way they are currently interpreted. Thus, the margins of safety provided by the Technical Specifications and the systems involved are not affected.

SECTION E

Environmental Impact:

An environmental assessment is not required for the changes requested by this Application because the requested changes conform to the criteria for "actions eligible for categorical exclusion" as specified in 10 CFR 51.22(c)(9). The requested changes have been shown by this Application not to adversely affect the systems and equipment that prevent the uncontrolled release of radioactive material to the environment. The Application involves no significant hazards consideration as demonstrated in the preceding sections.

The Application involves no significant change in the types or significant increase in the amounts of any effluents that may be released offsite, and there will be no significant increase in individual or cumulative occupational radiation exposure.

SECTION F

Conclusion:

The Plant Operations Review Committee and the Nuclear Review Board have reviewed these proposed changes to the Technical Specifications and determined that they do not involve an unreviewed safety question and will not endanger the health and safety of the public.

ACCELERATED TESTING REQUIREMENTS TO BE DELETED

Perform Accelerated Testing When the Following Become Inoperable:	Accelerated Testing Currently Required	Technical Specifications Section and (Page No.)	
One Core Spray Subsystem (one or two pumps)	Within 24 hrs Test Operable CS Subsystem and LPCI Subsystems. Test Same Every 72 hrs Thereafter.	4.5.A.2 4.5.A.1(f) 4.5.A.3(e)	(125) (125) (126)
One LPCI Pump or One LPCI subsystem	Within 24 hrs Test Operable LPCI Pumps/Subsystem and CS Subsystems. Test Same Every 72 hrs Thereafter.	4.5.A.4 4.5.A.5 4.5.A.1(f) 4.5.A.3(e)	(126) (126) (125) (126)
Two HPSW Pumps	Immediately and Weekly Thereafter Test Operable HPSW Pumps.	4.5.B.2	(128)
Three HPSW Pumps	Immediately test Operable HPSW pump and its Diesel Generator. Test Operable HPSW Pump Weekly Thereafter.	4.5.B.3	(128)
One Torus Cooling Loop	Immediately Test Operable Torus Cooling Loop and its Diesel Generators.	4.5.B.4	(128)
One Drywell Spray Loop	Immediately Test Operable Drywell Spray Loop and its Diesel Generators.	4.5.B.5	(128a)
One Torus Spray Loop	Immediately Test Operable Torus Spray Loop and its Diesel Generators.	4.5.B.6	(128a)
HPCI System	Immediately Test ECCS and RCIC. Test RCIC and ADS Actuation Logic Daily Thereafter.	4.5.C.2	(129)
RCIC System	Immediately and Weekly Thereafter Test HPCI.	4.5.D.2	(130)
One ADS Valve	Immediately Test ADS Actuation Logic for Operable Valves and Test HPCI. Test Same Weekly Thereafter.	4.5.E.2	(131)

Comparison No. 1

SYSTEM: RCIC & HPCI
STANDARD TECHNICAL SPECIFICATIONS: 4.7.4.a.1 & 4.5.1.a.1
EQUIVALENT PEACH BOTTOM TECHNICAL SPECIFICATION: 4.5.G.1

DISCUSSION:

Standard Technical Specifications require that at least every 31 days the RCIC and HPCI discharge piping be checked to verify it is filled with water. Peach Bottom's Technical Specifications also require that this be done, monthly, but only when the system is aligned to the torus. This is appropriate because RCIC and HPCI at Peach Bottom are normally aligned to the Condensate Storage Tank (CST), the elevation of which is above the highest point in the RCIC and HPCI discharge piping.

Comparison No. 2

SYSTEM: RCIC & HPCI
STANDARD TECHNICAL SPECIFICATIONS: 4.7.4.a.2, 4.5.1.a.2.a and 4.5.1.c.2.a(2)
EQUIVALENT PEACH BOTTOM TECHNICAL SPECIFICATION: Not Applicable

DISCUSSION:

Because RCIC and HPCI are normally aligned to the CST which is at an elevation above the system piping, there is no keep filled system.

Comparison No. 3

SYSTEM: RCIC, HPCI, CS, LPCI and HPSW
STANDARD TECHNICAL SPECIFICATIONS: 4.7.4.a.3, 4.5.1.a.3 and 4.7.1.1.a
EQUIVALENT PEACH BOTTOM TECHNICAL SPECIFICATIONS: 4.5.D.1(c), 4.5.C.1(c), 4.5.A.1(c), 4.5.A.3(c) and 4.5.B.1(b)

DISCUSSION:

Standard Technical Specifications require that at least every 31 days the position of each valve (manual, power operated or automatic) in the flow path that is not locked, sealed or otherwise secured in position be checked to verify that it is in its correct position. The Peach Bottom Technical Specifications go beyond that by requiring a monthly motor operated valve and pump operability test. Prior to beginning the monthly test, the systems are verified to be lined up for automatic operation and once the test is completed each valve in the flow path that was moved is returned to its correct position. Thus, the purpose of this Standard Technical Specification is fulfilled by performance of the monthly test required by the Peach Bottom Technical Specifications.

One valve in the flow path of HPCI and RCIC, however, is assured to be in its correct position without being checked monthly. HPCI injects into the reactor vessel through the 'A' feedwater line and RCIC injects through the 'B' feedwater line. The MO-29 valve (A&B) is in the flow path; however, this valve is opened prior to pulling any control rods in preparation for plant startup, the control switch is "mousetrapped" and an information tag is posted on the switch in accordance with the plant startup procedure (GP-2). During power operation this valve remains open to permit the normal flow of feedwater to the reactor vessel.

Comparison No. 4

SYSTEM: RCIC & HPCI
STANDARD TECHNICAL SPECIFICATIONS: 4.7.4.c.3 and 4.5.1.c.3
EQUIVALENT PEACH BOTTOM TECHNICAL SPECIFICATION: Table 4.2.B

DISCUSSION:

Automatic transfer of RCIC & HPCI suction from the CST to torus on CST low level and automatic transfer of HPCI suction from CST to torus on torus high level is demonstrated during the logic system functional test or the instrument functional test required by the Peach Bottom Technical Specifications. This is done more frequently than required by the Standard Technical Specifications.

Comparison No. 5

SYSTEM: HPCI & LPCI
STANDARD TECHNICAL SPECIFICATIONS: 4.5.1.a.2(b) and 4.5.1.c.2(b)
EQUIVALENT PEACH BOTTOM TECHNICAL SPECIFICATION: Not Applicable

DISCUSSION:

There is no header inside the vessel for HPCI and LPCI; thus, there is no header delta P instrumentation for HPCI and LPCI. HPCI injects through a feedwater line and LPCI injects through a reactor recirculation line. There is only a header inside the vessel for CS.

Comparison No. 6

SYSTEM: CS & LPCI
STANDARD TECHNICAL SPECIFICATION: 4.5.1.a.1
EQUIVALENT PEACH BOTTOM TECHNICAL SPECIFICATIONS: 4.5.A.1(b) and 4.5.A.3(b)

DISCUSSION:

Prior to starting the pump during the monthly pump operability test, the operators verify, in accordance with the test procedure, that the piping is filled with water by either confirming that the vent accumulator low level control room alarm is not lit or by venting water from the accumulator. The pump discharge full flow test line valve is closed prior to stopping the pump, ensuring that the system piping is left filled at the completion of the test. Thus, the purpose of this Standard Technical Specification is fulfilled by the performance of the monthly test required by the Peach Bottom Technical Specifications.

Comparison No. 7

SYSTEM: CS & LPCI
STANDARD TECHNICAL SPECIFICATIONS: 4.5.1.a.2(a) and 4.5.1.c.2(a)
EQUIVALENT PEACH BOTTOM TECHNICAL SPECIFICATION: 4.5.G.2

DISCUSSION:

Standard Technical Specifications require a functional test of the keep filled instrumentation at least every 31 days and a channel calibration at least every 18 months. The "standard plant" uses pressure instruments; Peach Bottom uses vent accumulator water level instruments. Peach Bottom Technical Specifications require a

functional test of the level switches once per operating cycle; however, this test is conducted quarterly. The Peach Bottom Technical Specifications do not specify a calibration frequency; however, if during the quarterly functional test the low level alarm does not light when water is drained from the accumulator, a maintenance request form would be initiated and the surveillance test would be considered a failure. Based on operating experience, this is considered to be an acceptable method of surveillance which provides a high level of operability assurance.

Comparison No. 8

SYSTEM: HPSW
STANDARD TECHNICAL SPECIFICATIONS: 4.7.1.1.b and 4.7.1.1.c
EQUIVALENT PEACH BOTTOM TECHNICAL SPECIFICATION: NONE

DISCUSSION:

Standard Technical Specifications require that water level in the intake structure for Residual Heat Removal Service Water Pumps (same function as Peach Bottom's HPSW) be checked periodically. The Peach Bottom HPSW pump bay (in the intake structure) is equipped with level instruments that feed a control room indicator and alarm. Alarm panels are "walked down" during each operating shift turnover. Also, river water level is logged each shift in accordance with Technical Specification 4.12.C.1. Based on this, and the fact that numerous other nuclear power plants that use a reservoir or river for the cooling water source do not have such a Technical Specification requirement, Philadelphia Electric Company does not consider such a requirement to be necessary for Peach Bottom. Provisions are in place to monitor intake structure water level.

The Standard Technical Specifications also require that the "( ) bottom conditions in the vicinity of the intake structure" be checked and that the "( ) stage discharge rating curve in the unit vicinity" be checked. The problems that these surveillances are intended identify would be identified by ASME Section XI testing since pump performance is thoroughly monitored. Removal of silt accumulated on the bottom of the intake structure is a scheduled preventive maintenance task conducted during refueling outages. The Technical Specifications of numerous other nuclear power plants using a reservoir or river for the cooling water source do not contain these surveillance requirements. Thus, Philadelphia Electric Company does not consider such requirements to be necessary.