PECO ENERGY

PECO Energy Company
Nuclear Group Headquarters
965 Chesterbrook Boulevard
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October 25, 1994

Docket No. 50-277
50-278

License No. DPR-44
DPR-56

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

Subject: Peach Bottom Atomic Power Station, Units 2 and 3
Emergency Technical Specification Change Request,
"HPCI Subsystem"

Dear Sir:

PECO Energy Company (PECO Energy) hereby submits an Exigent Technical Specifications Change Request (TSCR), in accordance with 10 CFR 50.91.a.(6), requesting a change to Appendix A of the Peach Bottom Facility Operating Licenses. The proposed changes concern the testing of the High Pressure Coolant Injection (HPCI) system.

This TSCR is requested to be processed as an Exigent Technical Specification change, in accordance with 10 CFR 50.91.a.(6). Exigent processing is being requested because the Peach Bottom Atomic Power Station (PBAPS) Technical Specifications (TS) low pressure HPCI system testing requirements are ambiguous, and we wish to accelerate the resolution of this ambiguity. The low pressure surveillance requirement (TS 4.5.C.1.e) requires that the test be performed at 150 psig. Prior to October 21, 1994, this 150 psig value was interpreted as a nominal value. During recent inspection activities surrounding the startup of PBAPS Unit 2 from refueling outage 2RO10, the NRC revised their previous position and determined that this value could not be interpreted as a nominal value. PECO Energy could not have foreseen this event because we were conducting station activities in accordance with NRC guidance.

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During the 1990 Safety System Functional Inspection (SSFI, Combined Inspection Report 90-200), the issue of the HPCI low pressure surveillance test being performed at a nominal value was reviewed (Open item 90-200-12). In response to the SSFI open item, PECO Energy revised an existing Plant Operations Review Committee (PORC) position, to document that the 150 psig was a nominal value, and committed to revising the TS to clarify the low pressure requirement. This commitment was incorporated into our September 29, 1994 Improved Technical Specifications (ITS) submittal. The NRC accepted this position and closed the SSFI open item (Combined Inspection Report 50-277/90-80, 50-278/90-80, dated November 9, 1990). The anticipated effective date of the ITS is the fourth quarter of 1995. Because of the revised NRC position regarding TS 4.5.C.1.e, PECO Energy is pursuing the attached TSCR in advance of the overall conversion to the ITS, and requests that it be processed on an exigent basis.

Attachment 1 to this letter describes the proposed changes, and provides justification for the changes. Attachment 2 contains the revised Technical Specification pages.

If you have any questions regarding this matter, please contact us.

Very truly yours,

D. B. Helker for

G. A. Hunger, Jr.
Director - Licensing

Enclosures: Affidavit, Attachment 1, Attachment 2

cc: T. T. Martin, Administrator, Region I, USNRC
W. L. Schmidt, Senior Resident Inspector, PBAPS
R. R. Janati, Commonwealth of Pennsylvania

COMMONWEALTH OF PENNSYLVANIA :

: ss.

COUNTY OF CHESTER :

W. H. Smith, III, being first duly sworn, deposes and says:

That he is Vice President, Station Support, of PECO Energy Company; the Applicant herein; that he has read the attached Technical Specifications Change Request for Peach Bottom Facility Operating Licenses DPR-44 and DPR-56, and knows the contents thereof; and that the statements and matters set forth therein are true and correct to the best of his knowledge, information and belief.

Vice President

Subscribed and sworn to
before me this 25th day
of October 1994.

Notary Public

Notarial Seal
Erica A. Santon, Notary Public
Tredyffrin Twp., Chester County
My Commission Expires July 10, 1995

ATTACHMENT 1

PEACH BOTTOM ATOMIC POWER STATION
UNITS 2 AND 3

Docket Nos. 50-277
50-278

License Nos. DPR-44
DPR-56

TECHNICAL SPECIFICATION CHANGE REQUEST

"HPCI Subsystem," Low Pressure Testing Requirements

Supporting Information for Changes: 4 Pages

PECO Energy Company (PECO Energy), Licensee under Facility Operating Licenses DPR-44 and DPR-56 for the Peach Bottom Atomic Power Station (PBAPS) Unit No. 2 and Unit No. 3, respectively, requests that the Technical Specifications contained in Appendix A to the Operating Licenses be amended. Proposed changes to the Technical Specifications are indicated by vertical bars in the margin of pages 129 and 141. The proposed revised pages for each unit are included in Attachment 2.

Introduction

As discussed with the NRC on October 21, 1994, this Technical Specification Change Request (TSCR) is being submitted to clarify the minimum reactor steam pressure for testing of the High Pressure Coolant Injection (HPCI) system. This system is most conveniently tested at a pressure where the Electro-Hydraulic Control (EHC) system is capable to respond and mitigate the pressure transients that result when either system is started. This pressure has historically been above 150, but below 175 psig.

PECO Energy is requesting a TSCR to 1) approve surveillance requirement (SR) 3.5.1.9, from the Improved Technical Specifications (ITS, submitted September 29, 1994) as the low pressure testing requirement for the HPCI system at PBAPS, and 2) amend the bases of the respective Technical Specifications to reflect these changes.

During startup testing of Unit 2 following the 10th refueling outage, the HPCI surveillance testing procedures were reviewed, and it was recognized that the subject Technical Specification (TS) surveillance tests (ST) could be considered ambiguous. Similar concerns were raised during the 1990 Safety System Functional Inspection (NRC Inspection Report 90/200, Inspection Item 90-200-12.) When these concerns were raised in 1990, PECO Energy revised a then existing Plant Operations Review Committee (PORC) Position to address the immediate concerns with the ST. The PORC position recognized the specific value in the TS as a nominal value. This was done with consideration for the overlap of HPCI functional requirements with the low pressure systems. The PBAPS vintage of TS are not as precise as the standardized TS and do not specify ranges for what were intended to be nominal values for test parameters. Standardized TS do specify a range of values. For example, the Limerick Unit 1 TS for this test condition is greater than or equal to 200, +15, -0 psig. This PORC Position is still considered to be in effect; however, to clarify the requirements, a TSCR is being submitted. PECO Energy submitted a request to implement ITS on September 29, 1994, and the ST requirements for HPCI, in the ITS, are clear and unambiguous. The changes proposed in support of ITS are consistent with those being submitted by this letter.

Description of Changes

The following changes and additions are being proposed.

Proposed Change (1):

TS Section 4.5.C.1.e currently states, "HPCI Subsystem testing shall be performed as follows: . . .(e) Flow Rate at 150 psig Steam Pressure"

The licensee is proposing that this TS Section be changed to state:

"Verify, with reactor pressure ≤ 175 psig, the HPCI pump can develop a flow rate ≥ 5000 gpm against a system head corresponding to reactor pressure*."

With the asterisked note to read:

"*Not required to be performed until 12 hours after reactor steam pressure and flow are adequate to perform the test."

Proposed Change (2):

The licensee is proposing that the bases section of TS be amended to reflect these changes.

These changes are consistent with those proposed as part of PBAPS's overall conversion to Improved Technical Specification (ITS).

Safety Discussion

The HPCI system is a high pressure system used to mitigate the consequences of accidents. With the reactor at relatively low pressure, the Low Pressure Coolant Injection (LPCI) system and Core Spray (CS) system provide adequate injection capability to maintain coolant inventory and mitigate the consequences of any low pressure design bases accidents. Further, the impact on the SAFER/GESTAR - LOCA, Loss of Coolant Accident Analysis of raising the minimum HPCI pressure from 150 to 175 psig is insignificant.

Existing Surveillance Requirement 4.5.C.1(e) requires verification that HPCI is capable of delivering at least 5000 gpm "at 150 psig reactor steam pressure." The proposed surveillance requirement, requires verification of a minimum 5000 gpm HPCI flow rate with reactor pressure ≤ 175 psig. This change is less restrictive because it could allow reactor operation at pressures up to 175 psig prior to performing the surveillance. Performance of HPCI pump testing draws steam from the reactor and could affect reactor pressure significantly. Therefore, HPCI pump testing must be performed when the Electro-Hydraulic Control (EHC) System for the main turbine is available and capable of regulating reactor pressure. Operating experience has demonstrated that reactor pressures as high as 175 psig may be required before the EHC system is capable of maintaining stable pressure during the performance of the HPCI test.

The HPCI performance test at low pressure is the first part of a two part test that verifies HPCI pump performance at the upper and lower end of the range of steam supply and pump discharge pressures in which the HPCI pump is expected to perform. Performance of the HPCI test at both ends of the expected operating pressure range confirms that the HPCI pump and turbine are functioning in accordance with design specifications. The ability of the HPCI pump to perform at the lowest required pressure 150 psig has already been demonstrated. A small increase in the pressure at which the performance to design specifications is verified will not significantly delay or affect the validity of the test to determine that the pump and turbine are still operating at the design specifications.

Information Supporting a Finding of No Significant Hazards Consideration

PECO Energy has evaluated this proposed Technical Specification change and has determined that it involves no significant hazards consideration. This determination has been performed in accordance with the criteria set forth in 10 CFR 50.92. The following evaluation is provided for the three categories of the significant hazards consideration standards:

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

   These changes increase the maximum pressure for performing the low pressure test on the HPCI pump from approximately 150 psig to ≤ 175 psig. For reasons stated above, HPCI pump testing must be performed when the EHC System for the main turbine is available and capable of regulating reactor pressure. Operating experience has demonstrated that reactor pressures as high as 175 psig may be required before the EHC system is capable of maintaining stable pressure during the performance of the HPCI test. The probability of an accident is not increased because the proposed changes will not involve any physical changes to plant systems, structures, or components (SSC), or the manner in which these SSC are operated, maintained, modified, or inspected. In addition, the pressure at which the HPCI System is tested is not assumed to be an initiator of any analyzed event. The role of the HPCI System is in the mitigation of accident consequences. The consequences of an accident are not increased because a small increase in the pressure at which the HPCI pump performance to design specifications is verified will not significantly delay or otherwise affect the validity of the test to determine that the pump and turbine are still operating at the design specifications. In addition, it is overly conservative to assume a component is inoperable when a surveillance has not been performed. In fact, in most cases, it is a matter of component Operability not yet being demonstrated since the usual outcome of the performance of a surveillance is the validation of conformance with surveillance requirements. Therefore, these changes will not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

   These changes do not involve any physical changes to plant systems, structures, or components (SSC), or the manner in which these SSC are operated, maintained, modified, or inspected. These changes increase the pressure for performing the low pressure test on the HPCI pump from approximately 150 psig to ≤ 175 psig. Therefore, these changes will not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

   The margin of safety is not reduced. These changes increase the pressure for performing the low pressure test on the HPCI pump from approximately 150 psig to ≤ 175 psig. For reasons stated above, the ability of the HPCI pump to perform at the lowest required pressure of 150 psig has already been demonstrated. A small increase in the pressure at which the performance to design specifications is verified will not significantly delay or affect the validity of the test to determine that the pump and turbine are still operating at the design specifications. These changes effectively extends the initial entry into the applicable condition prior to performing the surveillance. However, this is considered acceptable since the most common outcome of the performance of a surveillance is the successful demonstration that the acceptance criteria are satisfied. In addition, the change provides the benefit of allowing the surveillance to be postponed until plant conditions exist where performance of the surveillance is unlikely to result in a pressure transient. These changes do not affect the current analysis assumptions. Therefore, these changes do not involve a significant reduction in a margin of safety.

The requested TSCR does not have an adverse environmental impact because the pressure at which the ST for HPCI is performed does not increase either the quantity or likelihood of any environmental discharges.

The Plant Operations Review Committee has reviewed this proposed TSCR and has concluded that it does not involve a significant hazards consideration and will not endanger the health and safety of the public.

ATTACHMENT 2

PEACH BOTTOM ATOMIC POWER STATION
UNITS 2 AND 3

Docket Nos. 50-277
50-278

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DPR-56

TECHNICAL SPECIFICATION CHANGES

List of Attached Pages

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