

10CFR50.90

**PECO ENERGY**

PECO Energy Company
Nuclear Group Headquarters
965 Chesterbrook Boulevard
Wayne, PA 19087-5691

May 25, 1995

Docket Nos. 50-277

50-278

License Nos. 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
Supplement 9 to TSCR 93-16
Conversion to Improved Technical Specifications

References: Letter from G. A. Hunger, Jr. (PECO Energy) to USNRC dated September 29,
1994

Dear Sir:

In the reference letter PECO Energy Company submitted Technical Specifications Change Request (TSCR) 93-16, requesting changes to Appendices A and B of the Facility Operating Licenses for Peach Bottom Atomic Power Station (PBAPS), Units 2 and 3. This TSCR proposed an overall conversion of the current PBAPS Technical Specifications to the Improved Technical Specifications (ITS), as contained in NUREG-1433, "Standard Technical Specifications, General Electric Plants, BWR/4."

Enclosed is our response to additional questions regarding ITS Section 3.4, "Reactor Coolant System."

if you have any questions, please contact us.

Very truly yours,

G. A. Hunger, Jr.,
Director - Licensing

JLP/bgr

Affidavit, Enclosure

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

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COMMONWEALTH OF PENNSYLVANIA

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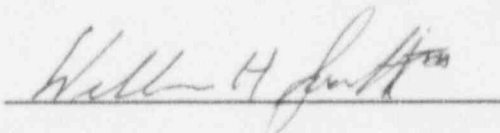
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COUNTY OF CHESTER

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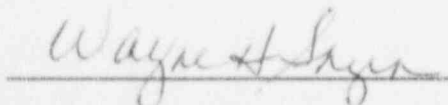
W. H. Smith, III, being first duly sworn, deposes and says:

That he is Vice President of PECO Energy Company; the Applicant herein; that he has read the attached response to questions regarding Technical Specifications Change Request (TSCR 93-16, Supplement 9) for changes to the 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.

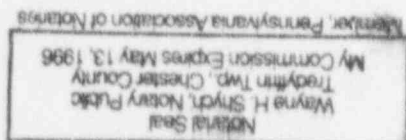


Vice President

Subscribed and sworn to
before me this 25th day
of May 1995.



Notary Public



PEACH BOTTOM ATOMIC POWER STATION, UNITS 2 AND 3
RESPONSES TO ADDITIONAL NRC QUESTIONS REGARDING
IMPROVED TECHNICAL SPECIFICATIONS SECTION 3.4

NRC Question 5:

This change allows for up to 24 hours to comply with the LCO for reasons other than Thermo-hydraulic instability. The second part of the LCO for operation in single loop requires that RPS setpoints be adjusted for the Average Power Range Monitors Flow Biased High Scram. It would appear that Action D.1 would allow up to 24 hours to reset the APRM Flow Biased High Scram setpoints. ITS section 3.3.1.1 requires actions which are more restrictive than 24 hours to be taken if an instrument is determined to be inoperable.

Provide information on what the time limits will be resetting the APRM Flow Biased High Scram.

PECO Energy Response regarding ITS LCO 3.4.1, DOC L₁:

Required Action D.1 of Specification 3.4.1 allows 24 hours to satisfy the LCO. This would allow 24 hours to recalibrate the APRM Flow Biased High Scram setpoints if the unit was going to stay in single loop operation. However, once the LCO is satisfied for either single loop or two loop operation, any subsequent calibration problems associated with the APRM Flow Biased High Scram channels would require entry into the applicable Conditions of Specification 3.3.1.1, "Reactor Protection System Instrumentation." A similar rationale holds true for the power distribution limits specified in the LCO.

Concern:

1. This technical specification (3.4.1) allows up to 24 hours to reset the APRM setpoint to a lower value. Section 3.3.1.1 only allows 12 hours for action for an inoperable channel.
2. CTS section 3.6.F requires the single loop requirements to be initiated within 6 hours or be in Hot Shutdown within the following 6 hours. The ITS is less restrictive than CTS in performing these actions.

This discrepancy between Specifications 3.4.1 and 3.3.1.1 has been recognized by the staff and a proposed generic change to NUREGs-1433 and 1434 is being prepared. That proposed generic change adds an Note to LCO 3.4.1 which reads:

-----NOTE-----
Required limit modifications for single recirculation loop operation may be delayed for up to 12 hours after transition from two recirculation loop operation to single recirculation loop operation.

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All four BWR/6's have or will have such a note in their ITS. The staff believes such a note should be added to ITS LCO 3.4.1 for Peach Bottom to eliminate any confusion brought on by the inconsistency with Specification 3.3.1.1 and the need to enter Condition D just to transition from two loop operation to single loop operation. Please provide a response to the staff's proposed solution to this concern.

PECO Energy Response to NRC concern regarding ITS LCO 3.4.1, DOC
L₁

In order to eliminate any potential confusion brought on by the inconsistency with Specification 3.3.1.1, Reactor Protection System, and the need to enter Condition D of Specification 3.4.1, Recirculation Loops Operating, just to transition from two loop operation to single loop operation, the proposed Note to LCO 3.4.1 will be added to the PBAPS ITS.

NRC Question 7:

CTS 3.6.E.1 requires that "...the reactor shall be in a Cold Shutdown within 24 hours" and ITS section 3.4.2 a requires "Be in MODE 3" in "12 hours." Placing the reactor in Cold Shutdown required temperature to be reduced to less than 212° F if a Jet Pump was inoperable. MODE 3 requires plant shutdown but does not require reduction in temperature. Provide documentation that reduction in temperature is no longer required if a jet pump has been determined to be inoperable.

PECO Energy Response

In the CTS, the Applicability of the Specification 3.6.E, "Jet Pumps," is whenever the reactor is in the startup or run modes (mode switch position as defined in CTS 1.0). CTS 3.0.A states action requirements are applicable during the operational conditions of each specification. As a result, to place the plant in a non-applicable condition in the case of a shutdown required by Specification 3.6.E, the mode switch can be placed in shutdown or refuel without requiring temperature to be reduced to $\leq 212^{\circ}\text{F}$. Placing the mode switch in shutdown is equivalent to MODE 3 in ITS. As a result, temperature reduction is not required by the CTS if a jet pump is inoperable.

Concern:

CTS 3.6.E.1 states:

Whenever the reactor is in the startup or run modes, all jet pumps shall be operable. If it is determined that a jet pump is inoperable, an orderly shutdown shall be initiated and the reactor shall be in a Cold Shutdown within 24 hours.

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CTS 3.0.A states:

Limiting condition for operation and action are applicable during the operational conditions and other states specified for each specification.

While there is a conflict in requirements between CTS 3.6.E.1 and 3.0.A, the staff believes that the ITS represents a less restrictive requirement for an inoperable jet pump than the CTS, not a more restrictive requirement, because the ITS Required Action does not require taking the unit to a cold shutdown condition.

Please provide a DOC justifying this change as a less restrictive requirement.

PECO Energy Response to NRC concern regarding ITS LCO 3.4.2, DOC M₁

DOC M₁ for ITS 3.4.2 will be deleted and a new DOC justifying this change as less restrictive will be provided as follows:

L₄ Current Technical Specification (CTS) 3.6.E.1 states that if it is determined that a jet pump is inoperable, an orderly shutdown shall be initiated and the reactor shall be in Cold Shutdown within 24 hours. ITS 3.4.2, Jet Pumps, for the Condition of an inoperable jet pump, requires the reactor to be placed in MODE 3 (Hot Shutdown) within 12 hours. Since the ITS shutdown action does not require placing the unit in MODE 4 (Cold Shutdown), the change to the shutdown action has been categorized as a less restrictive change. The change is considered acceptable since the Applicability of CTS 3.6.E, Jet Pumps, is whenever the reactor is in the startup or run modes (mode switch position as defined in CTS 1.0, Definitions). The Applicability of ITS 3.4.2 is MODES 1 and 2, which are equivalent to the run and startup modes, respectively, of the CTS. In the event of a failure to comply with requirements of the LCO, the reactor must be placed in a non-applicable MODE or condition. The ITS change reflects placing the reactor in the first available non-applicable MODE or condition. This change also achieves consistency with CTS 3.0.A. CTS 3.0.A states "Limiting Conditions for Operation and action requirements are applicable during the operational conditions and other states specified for each specification." Since the applicability of the CTS jet pumps limiting condition for operation and action is with the mode switch in startup or run, placing the mode switch in shutdown (MODE 3 in the ITS) results in exiting the jet pump condition of applicability. As a result, any further reduction in MODE or condition (to Cold Shutdown) is not required per CTS 3.0.A. In addition, not requiring the reactor to be placed in Cold Shutdown (mode switch in shutdown

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PECO Energy Response to NRC concern regarding ITS LCO 3.4.2, DOC
M₁ (continued)

and average reactor coolant temperature $\leq 212^{\circ}\text{F}$)
reduces the potential for an unnecessary shutdown
transient and the resultant thermal effects on plant
equipment.

DOC M₃ for ITS 3.2.1, 3.2.2, and 3.2.3 will also be deleted
and a new DOC justifying the changes as less restrictive
will be provided as follows:

L₂ CTS 3.5.I (APLHGR), 3.5.J (LHGR), and 3.5.K (MCPR)
require that if it is determined that the associated
power distribution limit is not restored within the
required time period, the reactor shall be in a Cold
Shutdown within 36 hours. ITS 3.2.1 (APLHGR), 3.2.2
(MCPR), and 3.2.3 (LHGR) require that if the associated
power distribution limit is not restored within the
required Completion Time, reactor thermal power must be
reduced to below 25% RTP within 4 hours. Since the ITS
shutdown action does not require placing the unit in
MODE 5 (Cold Shutdown), the change to the shutdown
action has been categorized as a less restrictive
change. The change is considered acceptable since the
Applicabilities of CTS 3.5.I, 3.5.J, and 3.5.K are
during reactor power operation at $\geq 25\%$ rated thermal
power. The Applicabilities of ITS 3.2.1, 3.2.2, and
3.2.3 are when THERMAL POWER is $\geq 25\%$ RTP, which are
equivalent to the CTS Applicabilities. In the event of
a failure to comply with requirements of the LCO, the
reactor must be placed in a non-applicable MODE or
condition. The ITS change reflects placing the reactor
in the first available non-applicable MODE or
condition. This change also achieves consistency with
CTS 3.0.A. CTS 3.0.A states "Limiting Conditions for
Operation and action requirements are applicable during
the operational conditions and other states specified
for each specification." Since the applicability of
the limiting condition for operation and actions for
the CTS power distribution limits are during reactor
power operation at $\geq 25\%$ rated thermal power, reducing
reactor thermal power to below 25% RTP results in
exiting the power distribution limits' conditions of
applicability. As a result, any further reduction in
MODE or condition (to Cold Shutdown) is not required
per CTS 3.0.A. In addition, not requiring the reactor
to be placed in Cold Shutdown (mode switch in shutdown
and average reactor coolant temperature $\leq 212^{\circ}\text{F}$)
reduces the potential for an unnecessary shutdown
transient and the resultant thermal effects on plant
equipment.