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Mr. Edward G. Bauer, Jr.
Vice President and General Counsel
Philadelphia Electric Company
2301 Market Street
Philadelphia, Pennsylvania 19101

Dear Mr. Bauer:

SUBJECT: REQUEST FOR A MEETING WITH PHILADELPHIA ELECTRIC COMPANY CONCERNING PURGE/VENT VALVES TECHNICAL SPECIFICATIONS

By letter dated December 12, 1983, we requested that Philadelphia Electric Company (PECo) submit Technical Specifications (TSs) covering the Peach Bottom purge/vent valves. By letter dated January 4, 1984, you submitted a proposed TS amendment package in response to our request. We reviewed the submittal and in early October discussed in a telephone conference call, our concerns with your staff. At the close of this telephone conversation, we agreed to formally document all issues and staff positions that were discussed. The purpose of this letter is to provide that documentation and to request a meeting with your staff to further discuss the open items provided in this documentation.

Enclosure 1 documents our telephone conference call with PECo and will serve as the proposed meeting agenda. Enclosure 2 provides for your review, examples of BWR Standard Technical Specifications (purge/vent valves) tailored to the Peach Bottom plant. We request that a meeting be held in Bethesda, MD within 30 days of the receipt of this letter. Arrangements should be made through the NRC Project Manager (G. Gears 301-492-8362).

Sincerely,

"ORIGINAL SIGNED BY
JOHN F. STOLZ"
John F. Stolz, Chief
Operating Reactors Branch #4
Division of Licensing

Enclosures:
As Stated

cc w/enclosures:
See next page

ORB#4:DL	ORB#4:DL
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11/21/84	11/21/84

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ENCLOSURE 1

PROPOSED AGENDA FOR MEETING WITH PHILADELPHIA ELECTRIC COMPANY

REVIEW STATUS OF TECHNICAL SPECIFICATION AMENDMENT FOR THE CONTAINMENT PURGE/VENT SYSTEM AT PEACH BOTTOM UNITS 2 & 3

On 31 July 79 Philadelphia Electric COmpany (PECO) submitted a proposed Technical Specification (TS) for the containment purge/vent systems at Peach Bottom Units 2 & 3 (PB2 & PB3). We identified concerns with both the plant hardware and the proposed TS amendment. To resolve these concerns we have conducted ongoing negotiations with PECO. By December of 1983 the hardware problems were resolved, but problems with the proposed TS remained. At that time the proposed TS consisted of the original 1979 submittal plus a number of proposed amendments to this submittal. With these difficulties, we were unable to perform an effective review of PECO's proposed TS. In order to make the review manageable, via a letter dated 12 Dec 83, we requested PECO to (1) submit a complete purge/vent TS Amendment Application package, (2) make the proposed TS consistent with the STS, (3) point out any items that are different in the proposed TS and the STS and justify these differences, and (4) add provisions to the proposed TS to better protect the Standby Gas Treatment System (SGTS). PECO responded to our request with the submittal referenced in the cover memorandum. The submittal contained all four of the elements we had requested. We have reviewed the submittal, and in early October of 1984 we discussed our concerns with PECO via telecon. We agreed to formally document all issues raised in the telecon, and the purpose of this attachment is to provide that documentation.

It should be noted that our purge/vent STS were transmitted to PECO on 7 July 82. The STS transmitted was for a pressurized water reactor, rather than for a boiling water reactor (PB2 & PB3 are both boiling water reactors). Having the wrong STS caused quite a bit of confusion for PECO, but, nevertheless, they worked with this wrong STS and, despite the difficulties, did an admirable job of preparing their proposed purge/vent TS. We would like PECO to resubmit their TS Amendment Application, and with this in mind we are enclosing a copy of our boiling water reactor purge/vent STS and containment isolation valve STS as Attachment 2. This purge/vent STS has been specifically tailored to Peach Bottom, and we feel it would be useful to PECO in their redrafting of the proposed purge/vent TS. Our purge/vent STS is enclosed simply to provide PECO with useful guidence, and we are not in any way implying that we are requiring PECO to adopt all or any part of our purge/vent STS.

In the remainder of this memorandum we will discuss the specific findings of our review of the proposed purge/vent TS which we discussed in the telecon referenced above. We will discuss all issues which raised questions in the review, even if we have now concluded that these points have been adequately addressed. The first five issues are points in which the proposed purge/vent TS is at variance with the NRC position. The remainder of the issues can be regarded as suggestions of how the proposed purge/vent TS could be improved.

The first issue is that the phrase "other safety related reason" in specification 3.7.E.3 is unacceptable. It is an NRC position that safety related reasons for purging/venting shall be specifically stated in the TS. Inerting, deinerting, and pressure control are the three safety related reasons for purging/venting in the STS which require no justification from the licensee. If a licensee wishes to purge/vent for some other safety related reason, then this reason must be stated in the specification, and in the TS Amendment Application the justification for including this reason in the specification must be given.

The second issue is that the NRC position does not permit carry-over of purge/vent time from year to year. This provision must be removed from specification 3.7.E.2.a.

The third issue is that the NRC postion does not permit sharing of purge/vent time between units. Each unit should be permitted 90 hours per year of purging/venting through the SGTS. If a licensee can justify a need for more than 90 hours for a given unit he may write his specification accordingly and include the justification in his TS Amendment Application.

The fourth issue is that the NRC position requires a specification for the leak tight integrity of the safety grade seal air supply system. Normally the periodic testing consists of pressurizing the region between two closed and sealed valves and observing the rate of leakage past the seals. This testing demonstrates that there is no seal deterioration. With the Peach Bottom arrangement this type of periodic testing is not required. Since the seals are continuously pressurized seal integrity is demonstrated, however we still require that it be demonstrated with a leakage test that there be no seal deterioration associated with the safety grade seal air supply system. For this reason we require PEC to include a specification for the safety grade seal air supply system in their TS.

The fifth issue is a typographical error. The words "previously measured" should be inserted between the fourth and fifth lines of specification 4.7.E.2.

The sixth issue is the valve and penetration numbers in the proposed specification 3.7.E.2.b. These numbers are correct for PB2, but not for PB3. PEC should submit a separate specification for PB3.

The seventh issue is that we were originally confused by the valve and penetration numbers in specification 3.7.E.2.b. PEC provided a schematic drawing of the containment with all pertinent valves, peneterations, pipes, and ducts indicated, which resolved this item.

The eight issue is the applicability criteria for the purge/vent TS. In the STS the applicability criteria is that the reactor be in operating mode 1, 2, or 3. In the proposed TS the applicability criteria is that the reactor be critical, the reactor mode switch be in the "startup" or "run" position, and the reactor coolant pressure be greater that 100 psig. The proposed TS applicability criteria was approved in the Safety Evaluation Report attached to the letter from J. F. Stolz (NRC) to E. G. Bauer, Jr. (PEC) dated 12 Dec 83. Since this criteria has already been approved, PEC need not provide further justification.

The ninth issue is that specification 3.7.D is incomplete. Specification 3.7.D.1 states that all isolation valves and instrument line flow check valves listed in Table 3.7.1 shall be operable. This statement is followed by an action statement for the isolation valves, but no action statement is given for the check valves. An action statement for the check valves should be included in this specification. Specification 3.7.D.2 is the action statement for the isolation valves. It provides a procedure if one of a pair of isolation valves fails, but gives no indication of what should be done if both valves fail. We suggest that PEC compare their proposed TS with the STS to see an acceptable approach to this concern. Specification 3.7.D is not part of our review and we are not requesting PECO to take action on it at this time. This issue is included here simply because it was raised on the telecon.

The tenth issue is the surveillance requirements associated with the containment isolation control system. The sample TS on this issue (STS 4.6.3.2) provided to PEC by the NRC was based on the Westinghouse control system design and required verification, at least once per 18 months, that a Phase A and Phase B containment isolation test signal closes the Phase A and Phase B isolation valves, respectively. Since the Peach Bottom containment isolation control systems are based on the General Electric control system logic, the specific language of the sample TS provided by the staff would not be directly applicable to Peach Bottom. Peach Bottom TS 4.7.D.1.a currently requires a simulated automatic initiation of each valve, at least once per operating cycle. PEC has demonstrated to the satisfaction of the Instrumentation and Control Systems Branch that the current language of Peach Bottom TS 4.7.D.1.a provide conservative, plant specific surveillance requirements consistent with the guidance provided in the staff's sample TS cited above.

ENCLOSURE 2

SAMPLE BOILING WATER REACTOR PURGE/VENT STANDARD TECHNICAL SPECIFICATIONS

AND CONTAINMENT ISOLATION VALVE STANDARD TECHNICAL SPECIFICATIONS

[The purge/vent Standard Technical Specifications are custom tailored to the Peach Bottom Nuclear Plants.]

CONTAINMENT SYSTEMS

DRYWELL AND SUPPRESSION CHAMBER PURGE SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.1.8 The drywell and suppression chamber purge supply and exhaust isolation valves shall be operated in accordance with specification 3.6.3 and with specifications 3.6.1.8.1 and 3.6.1.8.2 below.

1. The purge/vent valves may be opened for inerting, de-inerting, and pressure control.

2. Purging and venting through the SGTS shall be subjected to the following restrictions.

   a. For Peach Bottom 1 & 2, the combined time spent purging or venting through the SGTS shall be limited to 180 hours per calendar year.

   b. Whenever purging or venting is performed only one of the two SGTS trains shall be used.

   c. Whenever purging or venting is performed both SGTS trains shall be operable.

APPLICABILITY: RCS pressure greater than 100 psig and reactor critical and reactor mode switch on "startup" or "run".

ACTION:

3. If (1) one or more of the drywell purge supply valves and/or suppression chamber purge supply valves and/or purge-vent exhaust isolation valves are open and (2) the restriction of 3.6.1.8.1 is not applied, either (1) close the open valve(s) or otherwise isolate the penetration(s) within 4 hours or (2) after 4 hours has elapsed bring the reactor to at least HOT SHUTDOWN within the next 12 hours and to COLD SHUTDOWN within the following 24 hours.

4. If (1) one or more of the drywell purge supply valves and/or suppression chamber purge supply valves and/or purge-vent exhaust isolation valves are open and (2) purging or venting through the SGTS is being performed and (3) any restriction(s) of 3.6.1.8.2 is/are not applied, either (1) apply all the restrictions of 3.6.1.8.2 within 4 hours or (2) close the open valve(s) or otherwise isolate the peneration(s) within 4 hours or (3) after 4 hours has elapsed bring the reactor to at least HOT SHUTDOWN within the next 12 hours and to COLD SHUTDOWN within the following 24 hours.

5. If an inflatable seal and/or associated air supply system fails to conform to Surveillance Requirement 4.6.1.8, either (1) bring the system into conformance with the surveillance requirement within 24 hours or (2) after 24 hours has elapsed bring the reactor to at least HOT SHUTDOWN within the next 12 hours and to COLD SHUTDOWN within the following 24 hours.

SURVEILLANCE REQUIREMENTS

4.6.1.8 The inflatable seal and associated air supply system shall be demonstrated OPERABLE by:

1. Showing the seal air flask instrumentation channels are OPERABLE with a low pressure setpoint of 90 psig. This is done by performing:

   (a) A CHANNEL FUNCTIONAL TEST at least once every 31 days.

   (b) A CHANNEL: CALIBRATION at least once every 18 months.

2. Showing that there are no unacceptably large leaks in the seal air system by conducting a leak test on the seal air system at least once per 18 months. This test shall consist of verifying that with the seal inflated and the instrument air supply to the air flask valved out the air flask pressure does not decay more than [ ] psig per [hour/day].

3. Showing that the seal air flask pressure is adequate to properly inflate the valve seals. This is done by verifying at least once per day that the air flask pressure is equal to or greater than [ ] psig.

3/4.6.3 PRIMARY CONTAINMENT ISOLATION VALVES

LIMITING CONDITION FOR OPERATION

3.6.3 The primary containment isolation valves and the reactor instrumentation line excess flow check valves shown in Table 3.6.3-1 shall be OPERABLE with isolation times less than or equal to those shown in Table 3.6.3-1.

APPLICABILITY: (As shown in Table 3.6.3-1.) (OPERATIONAL CONDITIONS 1, 2 and 3 (and **.))

ACTION:

a. With one or more of the primary containment isolation valves shown in Table 3.6.3-1 inoperable, maintain at least one isolation valve OPERABLE in each affected penetration that is open and within 4 hours either:

   1. Restore the inoperable valve(s) to OPERABLE status, or

   2. Isolate each affected penetration by use of at least one deactivated automatic valve secured in the isolated position,* or

   3. Isolate each affected penetration by use of at least one closed manual valve or blind flange.*

   Otherwise, (in OPERATIONAL CONDITION 1, 2 or 3,) be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

   (Otherwise, in Operational Condition,** suspend all operations involving CORE ALTERATIONS, handling of irradiated fuel in the secondary containment and with a potential for draining the reactor vessel. The provisions of Specification 3.0.3 are not applicable.)

b. With one or more of the reactor instrumentation line excess flow check valves shown in Table 3.6.3-1 inoperable, operation may continue and the provisions of Specifications 3.0.3 and 3.0.4 are not applicable provided that within 4 hours either:

   1. The inoperable valve is returned to OPERABLE status, or

   2. The instrument line is isolated and the associated instrument is declared inoperable.

   Otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

*Isolation valves closed to satisfy these requirements may be reopened on an intermittent basis under administrative control.

(**When handling irradiated fuel in the secondary containment and during CORE ALTERATIONS and operations with a potential for draining the reactor vessel.)

SURVEILLANCE REQUIREMENTS

4.6.3.1 Each primary containment isolation valve shown in Table 3.6.3-1 shall be demonstrated OPERABLE prior to returning the valve to service after maintenance, repair or replacement work is performed on the valve or its associated actuator, control or power circuit by cycling the valve through at least one complete cycle of full travel and verifying the specified isolation time.

4.6.3.2 Each primary containment automatic isolation valve shown in Table 3.6.3-1 shall be demonstrated OPERABLE during COLD SHUTDOWN or REFUELING at least once per 18 months by verifying that on a containment isolation test signal each automatic isolation valve actuates to its isolation position.

4.6.3.3 The isolation time of each primary containment power operated or automatic valve shown in Table 3.6.3-1 shall be determined to be within its limit when tested pursuant to Specification 4.0.5.

4.6.3.4 Each reactor instrumentation line excess flow check valve shown in Table 3.6.3-1 shall be demonstrated OPERABLE at least once per 18 months by verifying that the valve checks flow at greater than a (10) psid differential pressure.

4.6.3.5 Each traversing in-core probe system explosive isolation valve shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying the continuity of the explosive charge.

(b. At least once per 18 months by removing (at least one) (the) explosive squib(s) from (at least one) (the) explosive valve(s) (such that each explosive squib in each explosive valve will be tested at least once per 36 months,) and initiating the explosive squib(s). The replacement charge for the exploded squib(s) shall be from the same manufactured batch as the one fired or from another batch which has been certified by having at least one of that batch successfully fired. No squib shall remain in use beyond the expiration of its shelf-life or operating life, as applicable.)

I would suggest rewriting 3.6.3.a to read as follows:

If any primary containment isolation valve shown in Table 3.6.3-1 is inoperable and the corresponding penetration is open, maintain one isolation valve OPERABLE in that penetraation and within 4 hours either:

I would suggest rewriting 3.6.3.b to read as follows:

If any reactor instrumentation line excess flow check valve shown in Table 3.6.3-1 is inoperable, reactor operation may continue and the provisions of Specification 3.0.3 and 3.0.4 are not applicable provided that within 4 hours either: