

**PECO ENERGY**

10 CFR 50.90

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

February 15, 1996

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
License Change Request No. 95-11

Dear Sir:

PECO Energy Company hereby submits License Change Request No. 95-11, in accordance with 10 CFR 50.90, requesting changes to the Peach Bottom Atomic Power Station, Units 2 and 3 Facility Operating Licenses. The proposed changes reflect the implementation of 10 CFR 50, Appendix J, Option B.

As discussed in the final rule (60 FR 49495, September 26, 1995) concerning the adoption of 10 CFR 50, Appendix J, Option B, the requirements in either or both Option B, III.A for Type A tests, and Option B, III.B for Type B and C tests may be adopted on a voluntary basis in substitution of the requirements for those tests contained in Option A by submitting the implementation plan and requesting a revision to the Technical Specifications. We request that the proposed changes be approved by May 3, 1996 and be made effective by June 28, 1996. PECO Energy's current implementation plan is to have the Primary Containment Leakage Rate Testing Program in place by June 28, 1996 which will permit the use of Option B, III.A and Option B, III.B at the PBAPS, Units 2 and 3.

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

If you have any questions, please do not hesitate to contact us.

Very truly yours,

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

Enclosures: Affidavit, Attachment 1, Attachment 2

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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ss.

COUNTY OF CHESTER

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D. B. Fetters, being first duly sworn, deposes and says:

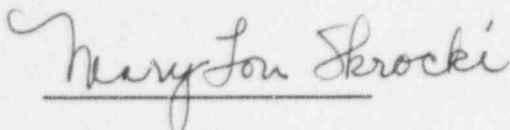
That he is Vice President of PECO Energy Company; the Applicant herein; that he has read the attached License Change Request (Number 95-11) for Peach Bottom Facility Operating Licenses DPR-44 and DPR-56, and knows the contents thereof; and that the statements and matters set forth therein are true and correct to the best of his knowledge, information and belief.



Vice President

Subscribed and sworn to

before me this 15th day
of February 1996.



Notary Public

Notarial Seal
Mary Lou Skrocki, Notary Public
Tredyffrin Twp., Chester County
My Commission Expires May 17, 1999

Notary Public, Pennsylvania Association of Notaries

ATTACHMENT 1

PEACH BOTTOM ATOMIC POWER STATION
UNITS 2 AND 3

Docket Nos. 50-277
50-278

License Nos. DPR-44
DPR-56

LICENSE CHANGE REQUEST
No. 95-11

"Adoption of 10 CFR 50, Appendix J, Option B"

Supporting Information - 4 Pages

Introduction

PECO Energy Company (PECO Energy), Licensee under Facility Operating Licenses DPR-44 and DPR-56 for the Peach Bottom Atomic Power Station (PBAPS), Units 2 and 3, requests that the Technical Specifications (TS) contained in Appendix A of Operating Licenses DPR-44 and DPR-56 be amended. The proposed changes reflect the implementation of 10 CFR 50, Appendix J, Option B.

This License Change Request provides a discussion and description of the proposed TS changes, a safety discussion of the proposed TS changes, information supporting a finding of No Significant Hazards Consideration, and information supporting an Environmental Assessment.

Discussion

Effective October 26, 1995, the Commission amended its regulations (10 CFR 50, Appendix J) to provide a performance-based option for leakage-rate testing of containments of light-water-cooled nuclear plants. The proposed changes to the Technical Specifications would permit the implementation of this performance-based option, which allows leakage testing intervals to be based on component performance.

Primary containment leakage-rate testing required by 10 CFR 50, Appendix J includes the performance of an Integrated Leakage Rate Test (Type A tests, often referred to as ILRTs) and Local Leak Rate Tests (Type B and C tests, often referred to as LLRTs). The Type A test measures overall leakage rate of the primary reactor containment. The Type B test measures the leakage rate across each pressure-containing or leakage-limiting boundary for various primary reactor containment boundaries. The Type C test measures containment isolation valve leakage rates.

These test requirements ensure that leakage through the containment, or components, does not exceed allowable leakage rates specified in the Technical Specifications. Additionally, these tests ensure the integrity of the containment structure is maintained during its service life.

The U. S. Nuclear Regulatory Commission (USNRC) published a notice in the Federal Register on February 4, 1992 (57 FR 4166), presenting its planned initiative to begin eliminating requirements that are marginal to safety and yet impose significant regulatory burdens on licensees. In the notice, the USNRC concluded that decreasing the prescriptiveness of some regulations could increase their effectiveness by giving the licensees the flexibility to implement more cost-effective safety measures. Additionally, the regulatory process could be made more efficient. To increase flexibility, the detailed and prescriptive technical requirements contained in some regulations could be improved and replaced with performance-based requirements and supporting regulatory guides.

In accordance with these conclusions, the USNRC indicated that Appendix J was a candidate whose requirements may be relaxed or eliminated based on cost-beneficial considerations. To support the 10 CFR 50, Appendix J, Option B rule change, the USNRC used an analytical approach documented in NUREG-1493, "Performance-Based Containment Leakage-Test Program," which confirms previous observations of insensitivity of population risks from severe reactor accidents to containment leakage rates.

Description of the Proposed Change

In a USNRC letter dated November 2, 1995 (C. I. Grimes (USNRC) to D. J. Modeen (NEI)), the USNRC provided a model TS which provides guidance to licensees for preparation of amendment requests to incorporate 10 CFR 50, Appendix J, Option B. PECO Energy has utilized this model for the changes to the PBAPS, Units 2 and 3 TS as it pertains to the current TS. As discussed in the final rule, the submittal for TS revisions must contain justification if the licensee chooses to deviate from methods approved by the USNRC and endorsed by Regulatory Guide 1.163, "Performance-Based Containment Leakage-Test Program." No deviations are being taken for PBAPS, Units 2 and 3.

Safety Discussion

The regulatory safety objective of the reactor containment design is stated in 10 CFR 50, Appendix A, "General Design Criteria for Nuclear Power Plants," Criterion 16, "Containment Design." GDC 16 mandates "an essentially leak-tight barrier against the uncontrolled release of radioactivity to the environment..." The previous version of 10 CFR 50, Appendix J implemented GDC 16 through prescriptive containment leakage testing requirements that stipulated the tests that should be performed, the frequency of testing, and reporting of the test results. The revised 10 CFR 50, Appendix J regulation maintains the prescriptive leakage testing requirements (now referred to as Option A), but now recognizes a performance-based leakage testing program (referred to as Option B) as an acceptable alternative to the prescriptive (Option A) requirements. This performance-based leakage testing approach allows test intervals to be based on component testing performance, thereby providing greater flexibility and cost-benefit in implementing the safety objectives of the regulation. The revised Appendix J: 1) makes Appendix J less prescriptive and more performance oriented, 2) moves details of Appendix J tests to a regulatory guide (1.163) as guidance, 3) endorses in the regulatory guide the industry guideline (NEI 94-01, "Industry Guideline For Implementing Performance-Based Option of 10 CFR Part 50, Appendix J," Revision 0) on the conduct of containment tests (the methods for testing are contained in an industry standard ANSI/ANS 56.8-1994, "Containment System Leakage Testing Requirements," which is referenced in the guideline), and 4) allows voluntary adoption of the new regulation, i.e., current detailed requirements in Appendix J will continue to be acceptable for compliance with the modified rule.

In the February 1995 proposed rule, the USNRC proposed a new risk-based regulation based on the performance history of components (containment penetrations and valves) as the means to justify an increase in the interval for Type A, B, and C tests. The revised regulation requires tests to be conducted on an interval based on the performance of the containment structure, penetrations and valves without specifying the interval in the regulation. Currently, three Type A tests are conducted in every 10 year period. Type B (except air locks, which are tested more frequently) and C tests are conducted on a frequency not to exceed 2 years. The USNRC proposed to base the frequency of Type A tests on the historical performance of the overall containment. Specific findings documented in NUREG-1493 that justify this proposal include:

1. The fraction of leakages detected only by ILRTs is small, on the order of a few percent.
2. Reducing the frequency of ILRT testing from 3 every 10 years to 1 every 10 years leads to a marginal increase in risk.
3. ILRTs also test the strength of the containment structure. No alternative to ILRTs has been identified to provide assurance that the containment structure would meet allowable leakage rates during design-basis accidents.
4. At a frequency of 1 test every 10 years, industry-wide occupational exposure would be reduced by 0.087 person-sievert (8.7 person-rem) per year.

Based on specific, detailed analyses of data from the North Anna and Grand Gulf nuclear power plants, and data from twenty-two nuclear plants, performance-based alternatives to current LLRT methods are feasible with marginal impact on risk. Specific findings include:

1. Type B and C test are capable of detecting over 97 percent of containment leakages.
2. Of the 97 percent, virtually all leakages are identified by LLRTs of containment isolation valves (Type C tests).
3. Based on the detailed evaluation of the experience of a single two-unit station, no correlation of failures with type of valve or plant service could be found.
4. For the 20 years of remaining operations, changing the Type B/C test frequency to once every 5 years for good-performing components is estimated to reduce industry-wide occupational radiation exposure by 0.72 person-sievert (72 person-rem) per year. If a 20-year license extension is assumed, the estimate is 0.75 person-sievert (75 person-rem) per year.

Information Supporting a Finding of No Significant Hazards Consideration

We have concluded that the proposed changes to the PBAPS, Units 2 and 3 TS do not constitute a Significant Hazards Consideration. In support of this determination, an evaluation of each of the three (3) standards set forth in 10 CFR 50.92 is provided below.

- 1) The proposed changes do not involve a significant increase in the probability or consequences of any accident previously evaluated.

The adoption of 10 CFR 50, Appendix J Option B will not involve a significant increase in the probability or consequences of any accident previously evaluated. The proposed changes to the TS reflect the use of the performance-based containment leakage-testing program. The USNRC has approved the use of a performance-based option for containment leakage testing programs when it amended 10 CFR 50, Appendix J (60 FR 49495). For adoption of the revised regulation, licensees are required to incorporate into their TS, by general reference, the USNRC regulatory guide or other plant-specific implementing document used to develop their performance-based leakage testing program. A new Administrative Control subsection (5.5.12, "Primary Containment Leakage Rate Testing Program") has been added that requires the establishment and maintenance of a Primary Containment Leakage Rate Testing Program. The TS will still require the performance of a periodic general visual inspection of the containment to ensure early detection of any structural deterioration of the containment that may occur.

As concluded in NUREG-1493, given the insensitivity of risk to containment leakage rate and the small fraction of leakage paths detected solely by ILRT testing, increasing the interval between ILRTs is possible with minimal impact on public risk. Additionally, performance-based alternatives to current LLRT requirements are feasible without significant risk impacts. Additionally, these changes will not alter any safety limits which ensure the integrity of fuel barriers, and will not result in a significant increase to onsite or offsite dose.

No physical changes are being made to the plant, nor are there any changes being made in the operation of the plant as a result of these changes which could involve a significant increase in the probability or consequences of any accident previously evaluated. Additionally, these changes will not alter the operation of equipment assumed to be available for the mitigation of accidents or transients.

- 2) The proposed changes do not create the possibility of a new or different kind of accident from any previously evaluated.

The adoption of 10 CFR 50, Appendix J Option B will not create the possibility of a new or different type of accident from any previously evaluated. These changes to the PBAPS, Units 2 and 3 TS will not involve any changes to plant systems, structures or components (SCCs) which could act as new accident initiators. These changes will not impact the manner in which SSCs are tested such that a new or different type of accident from any previously evaluated could be created.

- 3) The proposed changes do not result in a significant reduction in the margin of safety.

No margins of safety are reduced as a result of the proposed adoption of 10 CFR 50, Appendix J Option B. As stated previously, the USNRC has approved the use of this performance-based option for containment leakage testing programs when it amended 10 CFR 50, Appendix J (60 FR 49495). These changes will not impact core limits or any other parameters that are used in the mitigation of a UFSAR design-basis accident or transient. Additionally, these changes do not introduce any hardware changes, and will not alter the intended operation of plant structures, systems or components utilized in the mitigation of UFSAR design-basis accidents or transients. These changes will not introduce any new failure modes of plant equipment not previously evaluated.

Information Supporting an Environmental Assessment

An environmental assessment is not required for the proposed changes since the proposed changes conform to the criteria for "actions eligible for categorical exclusion" as specified in 10 CFR 51.22(c)(9). The proposed changes will have no impact on the environment. The proposed changes do not involve a significant hazards consideration as discussed in the preceding section. The proposed changes do not involve a significant change in the types or significant increase in the amounts of any effluents that may be released offsite. In addition, the proposed changes do not involve a significant increase in individual or cumulative occupational radiation exposure.

Conclusion

The Plant Operations Review Committee and the Nuclear Review Board have reviewed the proposed changes to the PBAPS, Units 2 and 3 TS and have concluded that the changes do not involve an unreviewed safety question and will not endanger the health and safety of the public.