

September 22, 2000

Mr. James A. Hutton
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Nuclear Group Headquarters
Correspondence Control
P.O. Box 160
Kennett Square, PA 19348

SUBJECT: PEACH BOTTOM ATOMIC POWER STATION, UNIT NO. 2 - ISSUANCE OF
AMENDMENT RE: REVISION TO TECHNICAL SPECIFICATIONS SAFETY LIMIT
MINIMUM CRITICAL POWER RATIO FOR CYCLE 14 OPERATION (TAC NO.
MA9267)

Dear Mr. Hutton:

The Commission has issued the enclosed Amendment No. 236 to Facility Operating License No. DPR-44 for the Peach Bottom Atomic Power Station, Unit No. 2. This amendment consists of changes to the Technical Specifications (TSs) in response to your application dated June 14, 2000, as supplemented by letter dated August 9, 2000.

This amendment revises the TSs for safety limit Minimum Critical Power Ratio from its current value of 1.10 to 1.09 for two recirculation-loop operation, and from 1.12 to 1.10 for single recirculation-loop operation.

A copy of the safety evaluation is also enclosed. Notice of Issuance will be included in the Commission's Bi-Weekly Federal Register Notice.

Sincerely,

/RA/

John P. Boska, Project Manager, Section 2
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-277

Enclosures: 1. Amendment No. 236 to
License No. DPR-44
2. Safety Evaluation

cc w/encls: See next page

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*SE dated 8/28/00 was provided and no major changes were made.

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ATLANTIC CITY ELECTRIC COMPANY

DOCKET NO. 50-277

PEACH BOTTOM ATOMIC POWER STATION, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 236
License No. DPR-44

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by PECO Energy Company, et al. (the licensee) dated June 14, 2000, as supplemented by letter dated August 9, 2000, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I.
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C(2) of Facility Operating License No. DPR-44 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 236 , are hereby incorporated in the license. PECO shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance and shall be implemented prior to startup for Cycle 14 operations, scheduled for October 2000.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

James W. Clifford, Chief, Section 2
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical
Specifications

Date of Issuance: September 22, 2000

ATTACHMENT TO LICENSE AMENDMENT NO. 236

FACILITY OPERATING LICENSE NO. DPR-44

DOCKET NO. 50-277

Replace the following pages of the Appendix A Technical Specifications with the attached revised pages. The revised pages are indicated by amendment number and contain marginal lines indicating the areas of changes.

Remove

2.0-1
5.0-21

Insert

2.0-1
5.0-21

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 236 TO FACILITY OPERATING LICENSE NO. DPR-44
PECO ENERGY COMPANY
PSEG NUCLEAR LLC
DELMARVA POWER AND LIGHT COMPANY
ATLANTIC CITY ELECTRIC COMPANY
PEACH BOTTOM ATOMIC POWER STATION, UNIT 2
DOCKET NO. 50-277

1.0 INTRODUCTION

By letter dated June 14, 2000 (Reference 1), as supplemented by letter dated August 9, 2000 (Reference 2), the PECO Energy Company (the licensee) submitted a request for changes to the Peach Bottom Atomic Power Station (PBAPS), Unit 2, Technical Specifications (TSs) for Cycle 14 operation. The requested changes would: (1) incorporate revised safety limit minimum critical power ratios (SLMCPR) in TS 2.1.1.2, (2) delete a previously added footnote to TS 2.1.1.2, and (3) update a reference contained in TS 5.6.5.b.2. The PBAPS Unit 2, Cycle 14 core has 764 fuel assemblies, of which there are 292 fresh GE14 fuel bundles, 292 once burned GE13 bundles, and 180 twice burned GE13 bundles. The August 9, 2000, letter provided clarifying information that did not change the initial proposed no significant hazards consideration determination or expand the scope of the original Federal Register notice.

2.0 EVALUATION

The licensee requested a change to the PBAPS Unit 2 TSs for Cycle 14, in accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.90. The proposed revision of TS 2.1.1.2 and TS 5.6.5.b.2 are described below.

2.1 TS 2.1.1.2

The proposed TS changes include changing the safety limit minimum critical power ratio (SLMCPR) values from 1.10 to 1.09 for two recirculation-loop operation and from 1.12 to 1.10 for single recirculation-loop operation with the reactor steam dome pressure \geq 785 psig and core flow \geq 10 percent rated core flow and deleting the cycle-specific footnote.

The licensee described the methodology used to calculate the SLMCPR value for the TSs in the submittal. The Cycle 14 SLMCPR analysis was performed by Global Nuclear Fuel

Company (formerly GENE) using the plant- and cycle-specific fuel and core parameters, and Nuclear Regulatory Commission (NRC) approved methodologies (References 3, 4, 5, and 6).

In response to an NRC staff question about the verification of the 3D-MONICORE bundle power calculational uncertainties for fuel and core designs not included in the benchmark comparisons of Tables 3.1 and 3.2 of NEDC-32694P, the licensee stated in Reference 2 that:

(1) comparisons have been performed verifying that the bundle power calculational uncertainties for core designs using GE10x10 fuel are not statistically different from the values reported in Tables 3.1 and 3.2 of NEDC-32694P and (2) these results are documented in GNF-A Design Record File (DRF) J11-03734 titled "Core Power Uncertainties for 10x10 Fuel," although the reduced power distribution uncertainties are not applied to the PBAPS Unit 2 Cycle 14 SLMCPR calculations. The licensee also provided documentation for the development of the GEXL14 correlation for GE14 fuel in NEDC-32851P and explained that the impacts of a low R-factor and low subcooling are reflected in developing the overall bias and uncertainty determination, and inaccuracies associated with the GEXL correlation are accounted for in the SLMCPR calculation.

The NRC staff has reviewed the justification for the SLMCPR value of 1.09 for two recirculation-loop operation and 1.10 for single recirculation-loop operation for Cycle 14 using the approach stated in the approved methodologies (References 3, 4, 5, and 6). Based on our review of the submittal and the further justification of the SLMCPR analysis (Reference 2), the staff has concluded that the Cycle 14 SLMCPR analysis for PBAPS Unit 2 is acceptable since the plant- and cycle-specific calculation was performed in accordance with the approved method. The PBAPS Unit 2 Cycle 14 SLMCPR will ensure that 99.9 percent of the fuel rods in the core will not experience boiling transition, which satisfies the requirements of General Design Criterion 10 of Appendix A to 10 CFR Part 50 regarding acceptable fuel design limits. Therefore, the NRC staff has concluded that the justification for analyzing and determining the SLMCPR values for PBAPS Unit 2 Cycle 14 is acceptable.

The NRC staff has also reviewed the proposed deletion of the cycle-specific footnote for the SLMCPRs contained in TS 2.1.1.2 and found it acceptable since the analyses on the SLMCPR are performed in accordance with the approved Amendment 25 to NEDE-24011-P-A for Cycle Specific Safety Limit MCPR.

2.2 TS 5.6.5.b.2

The licensee proposed to update a reference contained in TS 5.6.5.b.2, which documents an analytical method used to determine the core operating limits.

The NRC staff has reviewed the proposed changes and found them acceptable since Revision 1 of ARTS/MELLLA analysis was updated to Revision 2 to reflect changes in the analysis that were previously approved by the NRC in a safety evaluation dated August 10, 1994, enclosed with Amendment No. 192 for PBAPS Unit 2.

3.0 SUMMARY

Based on our review of the proposed TS changes (Reference 1) and the supplement (Reference 2), the staff has concluded that the proposed TS changes in TS 2.1.1.2 and TS 5.6.5.b.2 are acceptable because the cycle-specific analyses were performed using the approved methods stated in References 3, 4, 5, and 6.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Pennsylvania State official was notified of the proposed issuance of the amendment. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (65 FR 46012). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

6.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

7.0 REFERENCES

1. Letter from James A. Hutton to USNRC, "Peach Bottom Atomic Power Station, Unit 2, License Change Application ECR 00-00759," June 14, 2000.
2. Letter from James A. Hutton to USNRC, "Peach Bottom Atomic Power Station, Unit 2, Clarifications Regarding License Change Application ECR 00-00759," August 9, 2000.
3. NEDC-32694-A, "Power Distribution Uncertainties for Safety Limit MCPR Evaluations," August 1999.
4. NEDC-32601-A, "Methodology and Uncertainties for Safety Limit MCPR Evaluations," August 1999.

5. NEDC-32505P-A, "R-Factor Calculation Method for GE11, GE12 and GE13 Fuel," July 1999.
6. NEDO-10958-A, "General Electric BWR Thermal Analysis Basis (GETAB): Data, Correlation and Design Application," January 1977.

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Date: September 22, 2000

Peach Bottom Atomic Power Station,
Units 2 and 3

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