

August 16, 1996

Mr. George A. Hunger, Jr.
Director-Licensing, M-62A-1
PECO Energy Company
Nuclear Group Headquarters
Correspondence Control Desk
P.O. Box No. 195
Wayne, PA 19087-0195

SUBJECT: AVERAGE POWER RANGE MONITOR, FLOW BIASED HIGH SCRAM FUNCTION
SURVEILLANCE REQUIREMENTS, PEACH BOTTOM ATOMIC POWER STATION, UNIT
NO. 2 (TAC NO. M95712)

Dear Mr. Hunger:

The Commission has issued the enclosed Amendment No. 216 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 13, 1996 as supplemented by letter dated August 7, 1996.

This amendment will permit a one time performance of TS surveillance requirement 3.3.1.1.12 for the Average Power Range Monitor Flow Biased High Scram function with a delayed entry into associated TS Conditions and Required Actions for up to six hours provided core flow is maintained at or above eighty-two percent. This change is in effect until the end of refueling outage 2R11. Refueling outage 2R11 is currently scheduled to end in October 1996.

You are requested to inform the staff when you have implemented the provisions of this amendment.

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,
/s/
Joseph W. Shea, Project Manager
Project Directorate I-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket No. 50-277

- Enclosures: 1. Amendment No. 216 to License No. DPR-44
- 2. Safety Evaluation

cc w/encls: See next page

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*Previous Concurrence

OFFICE	PDI-2/IA	PDI-2/PM	SRXB *	OGC *	PDI-2/D
NAME	MO'Brien	JShea	RJones		JStolz
DATE	8/10/96	8/15/96	8/02/96	8/06/96	8/16/96

OFFICIAL RECORD COPY DOCUMENT NAME: g:\SHEA\PEACH\PB95712.AMD

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UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

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Sincerely,

A handwritten signature in black ink, appearing to read "J. Shea", written over a white background.

Joseph W. Shea, Project Manager
Project Directorate I-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket No. 50-277

Enclosures: 1. Amendment No. 216 to
License No. DPR-44
2. Safety Evaluation

cc w/encls: See next page

Mr. George A. Hunger, Jr.
PECO Energy Company

Peach Bottom Atomic Power Station,
Units 2 and 3

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

PECO ENERGY COMPANY

PUBLIC SERVICE ELECTRIC AND GAS COMPANY

DELMARVA POWER AND LIGHT COMPANY

ATLANTIC CITY ELECTRIC COMPANY

DOCKET NO. 50-277

PEACH BOTTOM ATOMIC POWER STATION, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 216
License No. DPR-44

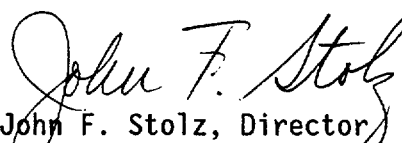
1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by PECO Energy Company, et al. (the licensee) dated June 13, 1996, as supplemented by letter dated August 7, 1996, complies with the standards and requirements of the Atomic Energy Act of 1954, as 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. 216, are hereby incorporated in the license. PECO Energy Company shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance and is to be implemented within thirty days.

FOR THE NUCLEAR REGULATORY COMMISSION



John F. Stolz, Director
Project Directorate I-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical
Specifications

Date of Issuance: August 16, 1996

ATTACHMENT TO LICENSE AMENDMENT NO. 216

FACILITY OPERATING LICENSE NO. DPR-44

DOCKET NO. 50-277

Replace the following pages of the Appendix A Technical Specifications with the enclosed pages. The revised areas are indicated by marginal lines.

<u>Remove</u>	<u>Insert</u>
3.3-5	3.3-5
3.3-6	3.3-6
B 3.3-33	B 3.3-33

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
SR 3.3.1.1.9 Perform CHANNEL FUNCTIONAL TEST.	92 days
SR 3.3.1.1.10 -----NOTE----- Radiation detectors are excluded. ----- Perform CHANNEL CALIBRATION.	92 days
SR 3.3.1.1.11 -----NOTES----- 1. Neutron detectors are excluded. 2. Not required to be performed when entering MODE 2 from MODE 1 until 12 hours after entering MODE 2. ----- Perform CHANNEL CALIBRATION.	184 days
SR 3.3.1.1.12 * -----NOTES----- 1. Neutron detectors are excluded. 2. For Function 2.a, not required to be performed when entering MODE 2 from MODE 1 until 12 hours after entering MODE 2. 3. For Function 2.b, until completion of refuel outage 2R11, entry into associated Conditions and Required Actions may be delayed for up to 6 hours provided core flow is maintained at or above 82%. This is an exception to Surveillance Requirements Note 2. ----- Perform CHANNEL CALIBRATION.	18 months

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
SR 3.3.1.1.13 Verify Turbine Stop Valve-Closure and Turbine Control Valve Fast Closure, Trip Oil Pressure-Low Functions are not bypassed when THERMAL POWER is \geq 30% RTP.	24 months
SR 3.3.1.1.14 Perform CHANNEL FUNCTIONAL TEST.	24 months
SR 3.3.1.1.15 Perform CHANNEL CALIBRATION.	24 months
SR 3.3.1.1.16 Calibrate each radiation detector.	24 months
SR 3.3.1.1.17 Perform LOGIC SYSTEM FUNCTIONAL TEST.	24 months
SR 3.3.1.1.18 Verify the RPS RESPONSE TIME is within limits.	24 months

BASES

SURVEILLANCE
REQUIREMENTSSR 3.3.1.1.10, SR 3.3.1.1.11, SR 3.3.1.1.12,
SR 3.3.1.1.15, and SR 3.3.1.1.16 (continued)

are passive devices, with minimal drift, and because of the difficulty of simulating a meaningful signal. Changes in neutron detector sensitivity are compensated for by performing the 7 day calorimetric calibration (SR 3.3.1.1.2) and the 1000 MWD/T LPRM calibration against the TIPs (SR 3.3.1.1.8). A second note is provided for SRs 3.3.1.1.11 and 3.3.1.1.12 that allows the APRM and IRM SRs to be performed within 12 hours of entering MODE 2 from MODE 1. Testing of the MODE 2 APRM and IRM Functions cannot be performed in MODE 1 without utilizing jumpers, lifted leads or movable links. This Note allows entry into MODE 2 from MODE 1, if the 184 day or 18 month Frequency is not met per SR 3.0.2. Twelve hours is based on operating experience and in consideration of providing a reasonable time in which to complete the SR. A third note is provided for SR 3.3.1.1.12 that allows the APRM SR to be performed without entering the associated Conditions and Required Actions for up to six hours provided core flow is maintained at or above 82% where the APRM scram setpoint becomes clamped. Once core flow drops below 82%, and the APRM scram setpoints become flow biased, associated Conditions and Required Actions must be entered. As noted for SR 3.3.1.1.10, radiation detectors are excluded from CHANNEL CALIBRATION due to ALARA reasons (when the plant is operating, the radiation detectors are generally in a high radiation area; the steam tunnel). This exclusion is acceptable because the radiation detectors are passive devices, with minimal drift. The radiation detectors are calibrated in accordance with SR 3.3.1.1.16 on a 24 month Frequency.

The 92 day Frequency of SR 3.3.1.1.10 is conservative with respect to the magnitude of equipment drift assumed in the setpoint analysis. The Frequencies of SR 3.3.1.1.11 and SR 3.3.1.1.12 are based upon the assumption of a 184 day or an 18 month calibration interval, respectively, in the determination of the magnitude of equipment drift in the setpoint analysis. The Frequencies of SR 3.3.1.1.15 and SR 3.3.1.1.16 are based upon the assumption of a 24 month calibration interval in the determination of the magnitude of equipment drift in the applicable setpoint analysis.

(continued)



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 216 TO FACILITY OPERATING LICENSE NO. DPR-44

PECO ENERGY COMPANY
PUBLIC SERVICE ELECTRIC AND GAS COMPANY
DELMARVA POWER AND LIGHT COMPANY
ATLANTIC CITY ELECTRIC COMPANY

PEACH BOTTOM ATOMIC POWER STATION, UNIT NO. 2

DOCKET NO. 50-277

1.0 INTRODUCTION

By letter dated June 13, 1996, as supplemented August 7, 1996, the PECO Energy Company (the licensee) submitted a request for changes to the Peach Bottom Atomic Power Station, Unit No. 2, (Peach Bottom, Unit 2) Technical Specifications (TSs). The requested change permits a one time performance of TS surveillance requirement 3.3.1.1.12 for the Average Power Range Monitor (APRM) Flow Biased High Scram function with a delayed entry into associated TS Conditions and Required Actions for up to six hours provided core flow is maintained at or above eighty-two percent. The August 7, 1996, letter provided clarifying information that did not change the initial proposed no significant hazards consideration determination.

2.0 BACKGROUND

The requested change affects Peach Bottom, Unit 2, TS 3.3.1.1 (Reactor Protection System Instrumentation). Specifically, the change affects surveillance requirement (SR) 3.3.1.1.12, which requires a channel calibration, at a frequency of 18 months. The current surveillance interval expires on August 19, 1996, for Peach Bottom Unit 2. The particular function for which the licensee seeks relief is the flow biased high scram (item 2.b of TS Table 3.3.1.1-1).

This surveillance process deactivates the flow biased APRM scram and the calibration process requires about six hours to complete. When one or more automatic Reactor Protection System (RPS) trip functions lose their trip capability, as is the case for the flow-biased high scram function during the course of the calibration, TS Action item 3.3.1.1.C requires restoration of the trip capability in one hour. The licensee can meet this requirement by placing the APRM division which is under calibration, in a tripped condition. This results in the RPS system being in a half scram condition for the duration of the calibration.

To overcome this problem, the licensee proposed the addition of note 3 to the notes for TS SR 3.3.1.1.12, which would indicate that for the remainder of this cycle only (i.e., until the completion of refueling outage 2R11), for surveillance function 2.b, entry into "Associated Conditions and Required Actions", may be delayed up to 6 hours if core flow is above 82 percent of rated flow. This is indicated as being an exception to Surveillance Requirements Note 2 which permits delay for six hours only if trip capability is maintained, which is not the case for the flow biased trip. The licensee also proposed an addition to the associated TS Basis describing the change and indicating that when below 82 percent flow (and APRM setpoints become flow biased) associated conditions and required actions must be entered.

3.0 EVALUATION

Peach Bottom Unit 2 is currently in end-of-cycle coast down and is in extended (high) core flow operation to achieve sufficient reactivity to maintain the operation. Core flow is therefore normally above 82 percent flow. The licensee stated that it intends to continue operating above 82 percent core flow during the calibration. In this range of operation the flow biased scram is not normally activated and the scram setpoint is clamped at 120 percent of high neutron flux (rated thermal power). The Peach Bottom Unit 2 Updated Final Safety Analysis Report (UFSAR) accident and transient analyses do not take credit for the flow biased APRM trip in any accident or transient. If it were active, the only type of event in which it might play a role would be one in which there would be a flow decrease below 82 percent followed by a power increase above the flow biased scram line. This is unlikely in the 5-6 hour time frame of the calibration process, and would be mitigated by the operator action to immediately comply with the associated conditions and required actions when below 82 percent flow.

Without the TS change, the APRM division undergoing calibration must be placed in a tripped condition. With the system in a half scram status the reactor is in increased risk of a full scram from perturbations in the other half of the system during calibration. It is this increased risk of scram which is avoided by this one time change in the TS. Following this cycle, Peach Bottom instrumentation involved in this calibration will be upgraded to comply with requirements for a calibration period to match the 24-month operating cycle used for the current cycle and intended for future Peach Bottom Unit 2 operations. The calibrations can then be done between cycles and the proposed TS change for this cycle will therefore not be needed in the future.

Since there is no requirement for the flow biased scram in the Peach Bottom, Unit 2 safety analyses, a low probability of occurrence of a relevant event during the six hour time frame of the calibration, a benefit to avoiding a possible unnecessary scram, and a proposed solution for future surveillance operations, this one time revision to the TS is acceptable.

The staff has reviewed the proposed Peach Bottom Unit 2 TS change for the surveillance calibration specification for the flow biased APRM scram, which permits, for up to 6 hours, a delayed entry into associated conditions and required actions, which is in effect a removal of the flow biased scram during the calibration. This scram does not play a role in any Peach Bottom safety analysis, and would have a low probability of being actuated during the calibration time frame. It is backed up by the normal APRM scram. The TS change permits avoiding a half scram status during the calibration and resulting increased potential for an unnecessary scram. Based on these conclusions the staff has determined that the proposed changes to the Peach Bottom Unit 2 TS are acceptable.

TS page 3.3-6 is reissued as a result of page reformatting which occurred when revisions to SR 3.3.1.1.12 were inserted. No changes to the TS on the pages issued with this amendment were made other than those described in Section 2.0 above.

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 and changes a surveillance requirement. 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 (61 FR 34895). 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.

Principal Contributor: H.Richings

Date: August 16, 1996