DCR 016

Dockets Nos. 50-277
and 50-278

February 10, 1984

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

Dear Mr. Bauer:

SUBJECT: ROD BLOCK SYSTEM TECHNICAL SPECIFICATION CHANGE

The Commission has issued the enclosed Amendment No. 91 to Facility Operating License No. DPR-44 and Amendment No. 93 to Facility Operating License No. DPR-56 for the Peach Bottom Atomic Power Station, Units 2 and 3. These amendments consist of changes to the Technical Specifications (TSs) in response to your application dated May 26, 1982.

These amendments increase the minimum number of required operable instrument channels for the Average Power Range Monitor (APRM) Rod Block Trip System from two to four and the Intermediate Range Monitor (IRM) Rod Block Trip System from three to six.

A copy of our Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's next Monthly Federal Register notice.

Sincerely,

Gerry Gears, Project Manager
Operating Reactors Branch #4
Division of Licensing

Enclosures:
1. Amendment No. 91 to DPR-44
2. Amendment No. 93 to DPR-56
3. Safety Evaluation

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Philadelphia Electric Company

cc w/enclosure(s):

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

PHILADELPHIA ELECTRIC 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. 91
License No. DPR-44

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Philadelphia Electric Company, et al. (the licensee) dated May 26, 1982, 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:

   Technical Specifications

   The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 91. 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 the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

John F. Stolz, Chief
Operating Reactors Branch #4
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: February 10, 1984

ATTACHMENT TO LICENSE AMENDMENT NO. 91

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 pages are identified by Amendment number and contain a vertical line indicating the area of change.

| Remove | Insert |
|---|---|
| 73 | 73 |
| 74a | 74a |

Amendment No. 23, 34, 36, 42, 48, 70, 78, 88, 91

TABLE 3.2.C
INSTRUMENTATION THAT INITIATES CONTROL ROD BLOCKS

| Minimum No. of Operable Instrument Channels Per Trip System | Instrument | Trip Level Setting | Number of Instrument Channels Provided by Design | Action |
|---|---|---|---|---|
| 4 | APRM Upscale (Flow Biased) | $\leq (0.66W+42-0.66\Delta W) \times \frac{FRP}{MFLPD}$ (2) | 6 Inst. Channels | (10) |
| 4 | APRM Upscale (Startup Mode) | ≤12% | 6 Inst. Channels | (10) |
| 4 | APRM Downscale | ≥2.5 indicated on scale | 6 Inst. Channels | (10) |
| 1 (7) | Rod Block Monitor (Flow Biased) | $\leq (0.66W+41-0.66\Delta W) \times \frac{FRP}{MFLPD}$ (2) | 2 Inst. Channels | (1) |
| 1 (7) | Rod Block Monitor Downscale | ≥2.5 indicated on scale | 2 Inst. Channels | (1) |
| 6 | IRM Downscale (3) | ≥2.5 indicated on scale | 8 Inst. Channels | (10) |
| 6 | IRM Detector not in Startup Position | (8) | 8 Inst. Channels | (10) |
| 6 | IRM Upscale | ≤108 indicated on scale | 8 Inst. Channels | (10) |
| 2 (5) | SRM Detector not in Startup Position | (4) | 4 Inst. Channels | (1) |
| 2 (5) (6) | SRM Upscale | $\leq 10^5$ counts/sec. | 4 Inst. Channels | (1) |
| 1 | Scram Discharge Volume High Level | ≤.25 gallons | 1 Inst. Channel | (9) |

NOTES FOR TABLE 3.2.C (Cont.)

9. If the number of operable channels is less than required by the minimum operable channels per trip function requirement, place the inoperable channel in the tripped condition within one hour. This note is applicable in the "Run" mode, "Startup" mode and "Refuel" mode if more than one control rod is withdrawn.

10. For the Startup (for IRM rod block) and the Run (for APRM rod block) positions of the Reactor Mode Selector Switch and with the number of OPERABLE channels:

a. One less than required by the Minimum OPERABLE Channels per Trip Function requirement, restore the inoperable channel to OPERABLE status within 7 days or place the inoperable channel in the tripped condition within the next hour.

b. Two or more less than required by the Minimum OPERABLE Channels per Trip Function requirement, place at least one inoperable channel in the tripped condition within one hour.

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

PHILADELPHIA ELECTRIC COMPANY
PUBLIC SERVICE ELECTRIC AND GAS COMPANY
DELMARVA POWER AND LIGHT COMPANY
ATLANTIC CITY ELECTRIC COMPANY

DOCKET NO. 50-278

PEACH BOTTOM ATOMIC POWER STATION, UNIT NO. 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 93
License No. DPR-56

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Philadelphia Electric Company, et al. (the licensee) dated May 26, 1982, 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-56 is hereby amended to read as follows:

   Technical Specifications

   The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 93 , 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 the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

John F. Stolz, Chief
Operating Reactors Branch #4
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: February 10, 1984

ATTACHMENT TO LICENSE AMENDMENT NO. 93

FACILITY OPERATING LICENSE NO. DPR-56

DOCKET NO. 50-278

Replace the following pages of the Appendix "A" Technical Specifications with the enclosed pages. The revised pages are identified by Amendment number and contain a vertical line indicating the area of change.

| Remove | Insert |
|---|---|
| 73 | 73 |
| 74a | 74a |

TABLE 3.2.C

INSTRUMENTATION THAT INITIATES CONTROL ROD BLOCKS

| Minimum No. of Operable Instrument Channels Per Trip System | Instrument | Trip Level Setting | Number of Instrument Channels Provided by Design | Action |
|---|---|---|---|---|
| 4 | APRM Upscale (Flow Biased) | $\leq (0.66W+42-0.66\Delta W) \times \frac{FRP}{MFLPD}$ (2) | 6 Inst. Channels | (10) |
| 4 | APRM Upscale (Startup Mode) | ≤12% | 6 Inst. Channels | (10) |
| 4 | APRM Downscale | ≥2.5 indicated on scale | 6 Inst. Channels | (10) |
| 1 (7) | Rod Block Monitor (Flow Biased) | $\leq (0.66W+41-0.66\Delta W) \times \frac{FRP}{MFLPD}$ (2) | 2 Inst. Channels | (1) |
| 1 (7) | Rod Block Monitor Downscale | ≥2.5 indicated on scale | 2 Inst. Channels | (1) |
| 6 | IRM Downscale (3) | ≥2.5 indicated on scale | 8 Inst. Channels | (10) |
| 6 | IRM Detector not in Startup Position | (8) | 8 Inst. Channels | (10) |
| 6 | IRM Upscale | ≤108 indicated on scale | 8 Inst. Channels | (10) |
| 2 (5) | SRM Detector not in Startup Position | (4) | 4 Inst. Channels | (1) |
| 2 (5) (6) | SRM Upscale | ≤$10^5$ counts/sec. | 4 Inst. Channels | (1) |
| 1 | Scram Discharge Volume High Level | ≤.25 gallons | 1 Inst. Channel | (9) |

Amendment No. 33, 62, 77, 88, 93

NOTES FOR TABLE 3.2.C (Cont.)

9. If the number of operable channels is less than required by the minimum operable channels per trip function requirement, place the inoperable channel in the tripped condition within one hour. This note is applicable in the "Run" mode, "Startup" mode and "Refuel" mode if more than one control rod is withdrawn.

10. For the Startup (for IRM rod block) and the Run (for APRM rod block) positions of the Reactor Mode Selector Switch and with the number of OPERABLE channels:

    a. One less than required by the Minimum OPERABLE Channels per Trip Function requirement, restore the inoperable channel to OPERABLE status within 7 days or place the inoperable channel in the tripped condition within the next hour.

    b. Two or more less than required by the Minimum OPERABLE Channels per Trip Function requirement, place at least one inoperable channel in the tripped condition within one hour.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENTS NOS. 91 AND 93 TO FACILITY OPERATING LICENSES

NOS. DPR-44 AND DPR-56

PHILADELPHIA ELECTRIC COMPANY

PUBLIC SERVICE ELECTRIC AND GAS COMPANY

DELMARVA POWER AND LIGHT COMPANY

ATLANTIC CITY ELECTRIC COMPANY

PEACH BOTTOM ATOMIC POWER STATION, UNITS 2 AND 3

DOCKETS NOS. 50-277 AND 50-278

## INTRODUCTION

By letter dated May 26, 1982, the Philadelphia Electric Company (the licensee) requested that the Technical Specifications for Peach Bottom Atomic Power Station, Units 2 and 3, be changed to provide an increase in the minimum number of required operable instrument channels for the Average Power Range Monitor (APRM) Rod Block Trip System from two to four and the Intermediate Range Monitor (IRM) Rod Block Trip System from three to six. The changes would also add a new "Action" statement (Table 3.2.C) to correspond to changes in the required number of operable channels. These changes involve specific control rod withdrawal blocks which are intended to inhibit control rod withdrawals when an unsafe condition is being approached by a specific monitored parameter.

## EVALUATION

The licensee requested the increase in the minimum number of required operable instrument channels for the APRM and IRM Rod Block Trip Systems in response to a concern raised by the NRC staff and conveyed to the licensee by the NRC Project Manager ("Misinterpretation of Number of Operable Instrument Channels for APRM Control Rod Withdrawal Block", December 29, 1981, T. Novak, NRC, to NRC Project Managers). It was indicated to the licensee that there had been misinterpretations of the Technical Specifications regarding the minimum number of APRM operable channels required for this specific control rod block function. The APRM rod withdrawal block function for the Peach Bottom facilities is divided into two circuits of three channels each. Any one of the six APRM channel inputs will result in the actuation of the rod withdrawal block. As presently written, the Peach Bottom Technical Specifications state that two out of three channels are required for each of the two trip circuit systems to accomplish the rod block action. However, this is not

the intent of this Technical Specification because only one APRM signal input is needed to initiate a rod withdrawal block (memo from T. Novak to ORPMs, December 29, 1981). Furthermore, it is the NRC staff's position that Technical Specifications should permit any two of the six APRM channels to be bypassed for the rod withdrawal block function. The proposed amendment would require that the minimum number of operable channels for the APRM Rod Block Trip System (Table 3.2.C) be four. This change, including the proposed "Action" statement, is responsive to the staff's concern expressed to the licensee as well as being fully consistent with the Standard Technical Specifications for Boiling Water Reactors (NUREG-0123, Rev. 3).

In a similar manner, the Peach Bottom IRM Rod Block Trip System is also actuated by any single IRM instrument channel trip. There are four channels per trip system for a total of eight instrument channels. For the IRM Rod Block Trip System, the proposed amendments would require six operable channels out of the eight available. This change and the accompanying "Action" statement are fully consistent with the Standard Technical Specifications for Boiling Water Reactors covering the minimum number of operable channels per trip function for IRM Rod Withdrawal Block Instrumentation.

We, therefore, conclude that the proposed changes in the minimum number of operable channels for the APRM and IRM Rod Withdrawal Block Trip Systems are acceptable.

ENVIRONMENTAL CONSIDERATION

We have determined that the amendments do not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendments involve an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR §51.5(d)(4), that an environmental impact statement, or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of these amendments.

CONCLUSION

We have 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, and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Dated: February 10, 1984

The following NRC personnel have contributed to this Safety Evaluation: G. Gears, B. Siegel.