

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

Dockets Nos. 50-277  
and 50-278 ✓

FEB 12 1975

Philadelphia Electric Company  
ATTN: Mr. Edward G. Bauer, Jr., Esquire  
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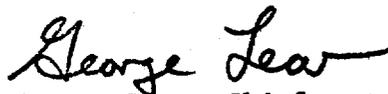
Gentlemen:

The Commission has issued the enclosed Amendments Nos. <sup>6</sup> 5 and <sup>4</sup> 3 to Facility Operating Licenses Nos. DPR-44 and DPR-56, respectively. These amendments include Changes Nos. 6 and 3 to the Technical Specifications and are in response to your request of December 3, 1974.

The amendments permit a decrease in the discharge pressure of the High Pressure Service Water Pumps.

A copy of the related Safety Evaluation and the Federal Register Notice are also enclosed.

Sincerely,



George Lear, Chief  
Operating Reactors Branch #3  
Division of Reactor Licensing

Enclosures:

1. Amendments Nos. 5 and 3
2. Safety Evaluation
3. Federal Register Notice

cc: w/enclosures  
See next page

C/P  
2



LB

Edward G. Bauer, Jr., Esquire

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cc:/w/enclosures

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PHILADELPHIA ELECTRIC COMPANY

PUBLIC SERVICE ELECTRIC & GAS COMPANY

DELMARVA POWER & LIGHT COMPANY

ATLANTIC CITY ELECTRIC COMPANY

DOCKET NO. 50-277

PEACH BOTTOM ATOMIC POWER STATION UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 5  
License No. DPR-44

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Philadelphia Electric Company, Public Service Electric & Gas Company, Delmarva Power & Light Company and Atlantic City Electric Company (the licensees) dated December 3, 1974, 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. Prior public notice of this amendment is not required since the amendment does not involve a significant hazards consideration.

2. Accordingly, the license is amended by a change to the Technical Specifications as indicated in the attachment to this license amendment and Paragraph 2.C. (2) of Facility 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, are hereby incorporated in the license. The licensees shall operate the facility in accordance with the Technical Specifications, as revised by issued changes thereto through Change No. 6".

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

*Karl R. Goller*

Karl R. Goller, Assistant Director  
for Operating Reactors  
Directorate of Licensing

Attachment:  
Change No. 6 to the  
Technical Specifications

Date of Issuance:

FEB 14 1975

ATTACHMENT TO AMENDMENT NO. 5

CHANGE NO. 6 TO THE TECHNICAL SPECIFICATIONS

FACILITY OPERATING LICENSE NO. DPR-44

DOCKET NO. 50-277

Replace page 127 with the attached revised page.

The backside of this page (pg 128), a copy of which is enclosed, is unchanged.

LIMITING CONDITIONS FOR OPERATION

SURVEILLANCE REQUIREMENT

3.5.A Core Spray and LPCI Subsystems (cont'd.)

4.5.A Core Spray and LPCI Subsystems (cont'd.)

6. If the requirements of 3.5.A cannot be met, an orderly shutdown of the reactor shall be initiated and the reactor shall be in the Cold Shutdown Condition within 24 hours.

B. Containment Cooling Subsystem (HPSW)

B. Containment Cooling Subsystem (HPSW)

1. Except as specified in 3.5.B.2, 3.5.B.3, 3.5.B.4 and 3.5.F.3 below, all containment cooling subsystem loops shall be operable whenever irradiated fuel is in the reactor vessel and reactor coolant temperature is greater than 212°F, and prior to reactor startup from a Cold Condition.

1. Containment Cooling Subsystem Testing shall be as follows:

| <u>Item</u> | <u>Frequency</u> |
|-------------|------------------|
|-------------|------------------|

|                              |               |
|------------------------------|---------------|
| (a) Pump & Valve Operability | Once/3 months |
|------------------------------|---------------|

|  |   |
|--|---|
| (b) Pump Capacity Test. Each HPSW pump shall deliver 4500 gpm at 280 psig. | After pump maintenance and every 3 months |
|--|---|

|  |              |
|--|--------------|
| (c) Air test on drywell and torus headers and nozzles. | Once/5 years |
|--|--------------|

2. From and after the date that any two HPSW pumps are made or found to be inoperable for any reason, continued reactor operation is permissible only during the succeeding thirty days, unless such pump is sooner made operable, provided that during such thirty days all other active components of the containment cooling subsystem are operable.

2. When it is determined that any two HPSW pumps are inoperable, the remaining components of the containment cooling subsystems shall be demonstrated to be operable immediately and weekly thereafter.

6

LIMITING CONDITIONS FOR OPERATION

SURVEILLANCE REQUIREMENT

3.5.B Containment Cooling Subsystem (cont'd.)

4.5.B Containment Cooling Subsystem (cont'd.)

3. From and after the date that any 3 HPSW pumps are made or found to be inoperable for any reason, continued reactor operation is permissible only during the succeeding fifteen days unless such pumps are sooner made operable provided all remaining components of the containment cooling system are operable.
4. From and after the date that 3 containment cooling subsystem loops are made or found to be inoperable for any reason, continued reactor operation is permissible only during the succeeding seven days unless such subsystem loop is sooner made operable, provided that all active components of the other containment cooling subsystem loop, including its associated diesel generators, are operable.
5. If the requirements of 3.5.B cannot be met, an orderly shutdown shall be initiated and the reactor shall be in a Cold Shutdown Condition within 24 hours.

3. When it is determined that any 3 HPSW pumps are inoperable, the remaining components of both containment cooling subsystems shall be demonstrated to be operable immediately and weekly thereafter.
4. When 3 containment cooling subsystem loops become inoperable, the operable subsystem loop and its associated diesel-generator shall be demonstrated to be operable immediately and the operable containment cooling subsystem loop daily thereafter.

C. HPCI Subsystem

C. HPCI Subsystem

1. The HPCI Subsystem shall be operable whenever there is irradiated fuel in the reactor vessel, reactor pressure is greater than 105 psig, and prior to reactor startup from a Cold Condition, except as specified in 3.5.C.2 and 3.5.C.3 below.

1. HPCI Subsystem testing shall be performed as follows:

| <u>Item</u>                            | <u>Frequency</u>     |
|--|----------------------|
| (a) Simulated Automatic Actuation Test | Once/operating cycle |

PHILADELPHIA ELECTRIC COMPANY

PUBLIC SERVICE ELECTRIC & GAS COMPANY

DELMARVA POWER & LIGHT COMPANY

ATLANTIC CITY ELECTRIC COMPANY

DOCKET NO. 50-278

PEACH BOTTOM ATOMIC POWER STATION UNIT 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 3  
License No. DPR-56

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Philadelphia Electric Company, Public Service Electric & Gas Company, Delmarva Power & Light Company and Atlantic City Electric Company (the licensees) dated December 3, 1974, 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. Prior public notice of this amendment is not required since the amendment does not involve a significant hazards consideration.

2. Accordingly, the license is amended by a change to the Technical Specifications as indicated in the attachment to this license amendment and Paragraph 2.C.(2) of the Facility License No. DPR-56 is hereby amended to read as follows:

"(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised, are hereby incorporated in the license. The licensees shall operate the facility in accordance with the Technical Specifications, as revised by issued changes thereto through Change No.3."

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

*Karl R. Goller*

Karl R. Goller, Assistant Director  
for Operating Reactors  
Directorate of Licensing

Attachment:  
Change No. 3 to the  
Technical Specifications

Date of Issuance: FEB 12 1975

ATTACHMENT TO AMENDMENT NO. 3

CHANGE NO. 3 TO THE TECHNICAL SPECIFICATIONS

FACILITY OPERATING LICENSE NO. DPR-56

DOCKET NO. 50-278

Replace page 127 with the attached revised page.  
The backside of this page (pg 128), a copy of which is enclosed, is unchanged.

LIMITING CONDITIONS FOR OPERATION

SURVEILLANCE REQUIREMENT

3.5.A Core Spray and LPCI Subsystems (cont'd.)

6. If the requirements of 3.5.A cannot be met, an orderly shutdown of the reactor shall be initiated and the reactor shall be in the Cold Shutdown Condition within 24 hours.

B. Containment Cooling Subsystem (HPSW)

1. Except as specified in 3.5.B.2, 3.5.B.3, 3.5.B.4 and 3.5.F.3 below, all containment cooling subsystem loops shall be operable whenever irradiated fuel is in the reactor vessel and reactor coolant temperature is greater than 212°F, and prior to reactor startup from a Cold Condition.

2. From and after the date that any two HPSW pumps are made or found to be inoperable for any reason, continued reactor operation is permissible only during the succeeding thirty days, unless such pump is sooner made operable, provided that during such thirty days all other active components of the containment cooling subsystem are operable.

4.5.A Core Spray and LPCI Subsystems (cont'd.)

B. Containment Cooling Subsystem (HPSW)

1. Containment Cooling Subsystem Testing shall be as follows:

| <u>Item</u>   | <u>Frequency</u>                          |
|---|---|
| (a) Pump & Valve Operability  | Once/3 months                             |
| (b) Pump Capacity After pump Test. Each HPSW pump shall deliver 4500 gpm at 280 psig. | After pump maintenance and every 3 months |
| (c) Air test on drywell and torus headers and nozzles.                                | Once/5 years                              |

2. When it is determined that any two HPSW pumps are inoperable, the remaining components of the containment cooling subsystems shall be demonstrated to be operable immediately and weekly thereafter.

| 3

LIMITING CONDITIONS FOR OPERATION

SURVEILLANCE REQUIREMENT

3.5.B Containment Cooling Subsystem (cont'd.)

3. From and after the date that any 3 HPSW pumps are made or found to be inoperable for any reason, continued reactor operation is permissible only during the succeeding fifteen days unless such pumps are sooner made operable provided all remaining components of the containment cooling system are operable.
4. From and after the date that 3 containment cooling subsystem loops are made or found to be inoperable for any reason, continued reactor operation is permissible only during the succeeding seven days unless such subsystem loop is sooner made operable, provided that all active components of the other containment cooling subsystem loop, including its associated diesel generators, are operable.
5. If the requirements of 3.5.B cannot be met, an orderly shutdown shall be initiated and the reactor shall be in a Cold Shutdown Condition within 24 hours.

C. HPCI Subsystem

1. The HPCI Subsystem shall be operable whenever there is irradiated fuel in the reactor vessel, reactor pressure is greater than 105 psig, and prior to reactor startup from a Cold Condition, except as specified in 3.5.C.2 and 3.5.C.3 below.

4.5.B Containment Cooling Subsystem (cont'd.)

3. When it is determined that any 3 HPSW pumps are inoperable, the remaining components of both containment cooling subsystems shall be demonstrated to be operable immediately and weekly thereafter.
4. When 3 containment cooling subsystem loops become inoperable, the operable subsystem loop and its associated diesel-generator shall be demonstrated to be operable immediately and the operable containment cooling subsystem loop daily thereafter.

C. HPCI Subsystem

1. HPCI Subsystem testing shall be performed as follows:

| <u>Item</u>                            | <u>Frequency</u>     |
|--|----------------------|
| (a) Simulated Automatic Actuation Test | Once/operating cycle |

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

SAFETY EVALUATION BY THE DIRECTORATE OF LICENSING  
SUPPORTING AMENDMENTS NOS. 5 AND 3 TO LICENSES  
NOS. DPR-44 AND DPR-56  
(CHANGES NOS. 6 AND 3 TO THE TECHNICAL SPECIFICATIONS)  
PHILADELPHIA ELECTRIC COMPANY  
PEACH BOTTOM ATOMIC POWER STATION UNITS 2 AND 3  
DOCKETS NOS. 50-277 AND 50-278

Introduction

On December 3, 1974, the Philadelphia Electric Company (PECo) submitted an application to amend the licenses of Peach Bottom Units 2 and 3. The proposed amendments would modify the Peach Bottom Technical Specifications 4.5.B.1(b) to permit a decrease in the discharge pressure of the High Pressure Service Water (HPSW) pumps from 295 psig to 280 psig.

Discussion

Technical Specification 4.5.B.1(b) for Peach Bottom Units 2 and 3 requires that, after pump maintenance and every three months, each HPSW pump be tested to confirm that it delivers 4500 gpm of water at 295 psig. These pressure and flow rate values correspond to the purchase specification values which were established in a highly conservative manner to assure a wide margin above actual requirements for pressure and flow rate of the service water. The licensee has requested that the HPSW pump pressure be reduced to 280 psig to account for pump wear resulting from the river water silt in the HPSW system.

The 4 HPSW pumps, arranged in two trains of 2 pumps each, supply cooling water to the tube side of the 4 Residual Heat Removal (RHR) heat exchangers. Since the shell side of the RHR heat exchangers contain radioactively contaminated water, any flow resulting from a tube leak should be from the tube to the shell side of the heat exchanger. This would prevent contamination of the HPSW resulting from tube leaks.



The licensee has presented an analysis which indicates that if the pressure differential between the tube outlet and shell inlet of an RHR heat exchanger is zero, no leakage from the shell to the tube side will occur through a tube leak; this safety feature is a requirement of the RHR heat exchanger design. In this regard, the shell design provides for the inlet near the bottom of the heat exchanger and its outlet near the top; the tubes both enter and exit near the top of the RHR heat exchanger. The shell (contaminated water) side inlet will not exceed 245 psig; to assure that the HPSW pressure at the heat exchanger outlet is 245 psig, the HPSW pump discharge pressure must be equal to 245 psig plus a pressure differential to account for heat exchanger pressure drop, pipe losses and elevation differences. It has been calculated that this required HPSW pump discharge pressure is 271 psi. When consideration is given to the accuracy of the instrument measuring the pump discharge pressure, an accuracy of 1/2% of full scale reading of 600 psi, the minimum pressure is equal to 271 psig plus 3 or 274 psig. The licensee's proposed Technical Specification provides 280 psig for the HPSW pump discharge which is 6 psig above that pressure indicated by the calculations.

We conclude from the above that, a HPSW pump discharge pressure of 280 psig, will provide sufficient pressure differential in the RHR heat exchanger to assure that contaminated water can not leak into the HPSW system and thereby be released from the plant in the event of an RHR heat exchange tube leak.

#### Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the change does not involve a significant increase in the probability or consequences of accidents previously considered and does not involve a significant decrease in a safety margin, the change does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Dated: FEB 12 1975

U. S. NUCLEAR REGULATORY COMMISSION

DOCKETS NOS. 50-277 AND 50-278

PHILADELPHIA ELECTRIC COMPANY

PUBLIC SERVICE ELECTRIC & GAS COMPANY

DELMARVA POWER & LIGHT COMPANY

ATLANTIC CITY ELECTRIC COMPANY

NOTICE OF ISSUANCE OF AMENDMENTS TO FACILITY

OPERATING LICENSES

Notice is hereby given that the U. S. Nuclear Regulatory Commission (the Commission) has issued Amendments Nos. 5 and 3 to Facility Operating Licenses Nos. DPR-44 and DPR-56, respectively, issued to Philadelphia Electric Company, Public Service Electric & Gas Company, Delmarva Power & Light Company, and Atlantic City Electric Company which revised Technical Specifications for operation of the Peach Bottom Atomic Power Station, Units 2 and 3, located in Peach Bottom, York County, Pennsylvania. These amendments are effective as of date of issuance.

The amendments permit a decrease in the discharge pressure of the High Pressure Service Water pumps.

The application for the amendments complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendments.

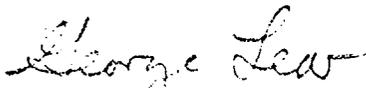
For further details with respect to these actions, see (1) the application for amendments dated December 3, 1974, (2) Amendments Nos. 5 and 3 to Licenses Nos. DPR-44 and DPR-56, with Changes Nos. 6 and 3,

and (3) the Commission's related Safety Evaluation. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H. Street, N. W., Washington, D. C. and at the Martin Memorial Library, 159 East Market Street, York, Pennsylvania.

A copy of items (2) and (3) may be obtained upon request addressed to the Nuclear Regulatory Commission, Washington, D. C. 20545, Attention: Director, Division of Reactor Licensing, Office of Nuclear Reactor Regulation.

Dated at Bethesda, Maryland, this 12th day of February, 1975.

FOR THE NUCLEAR REGULATORY COMMISSION



George Lear, Chief  
Operating Reactors Branch #3  
Division of Reactor Licensing