



REGULATORY DIVISION FILE COPY
UNITED STATES NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

August 1, 1980

Dockets Nos. 50-277
and 50-278

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

Dear Mr. Bauer:

The Commission has issued the enclosed Amendments Nos. 72 and 70 to Facility Operating Licenses Nos. DPR-44 and DPR-56 for the Peach Bottom Atomic Power Station, Units Nos. 2 and 3. The amendments revise the Technical Specifications regarding suppression pool temperature limits for routine startup and power operation conditions and for periods of testing which add heat to the suppression pool. The revised limits conform the specifications with current licensing practice as set forth in NUREG-0123, "Standard Technical Specifications for General Electric Boiling Water Reactors". This action is in response to your request dated August 1, 1978.

During the course of our review, we suggested to members of your staff that the proposed wording of the specifications on suppression pool temperature limits be revised. Your staff agreed.

We are in receipt of your application dated July 28, 1980, which requested a temporary change to the Unit No. 2 specifications on suppression pool temperatures. In view of the actions we have taken by the enclosed amendments, we believe they satisfy your July 28, 1980 request and that no further action by the NRC staff is required.

Copies of our Safety Evaluation and a related Notice of Issuance are also enclosed.

Sincerely,

Robert W. Reid, Chief
Operating Reactors Branch #4
Division of Licensing

Enclosures:

- 1. Amendment No. 72 to DPR-44
- 2. Amendment No. 70 to DPR-56
- 3. Safety Evaluation
- 4. Notice

cc w/enclosures: See next page

8008140060

Mr. Edward G. Bauer, Jr.
Philadelphia Electric Company

cc:

Eugene J. Bradley
Philadelphia Electric Company
Assistant General Counsel
2301 Market Street
Philadelphia, Pennsylvania 19101

Troy B. Conner, Jr.
1747 Pennsylvania Avenue, N. W.
Washington, D. C. 20006

Raymond L. Hovis, Esquire
35 South Duke Street
York, Pennsylvania 17401

Warren K. Rich, Esquire
Assistant Attorney General
Department of Natural Resources
Annapolis, Maryland 21401

Philadelphia Electric Company
ATTN: Mr. W. T. Ullrich
Peach Bottom Atomic
Power Station
Delta, Pennsylvania 17314

Albert R. Steel, Chairman
Board of Supervisors
Peach Bottom Township
R. D. #1
Delta, Pennsylvania 17314

Curt Cowgill
U. S. Nuclear Regulatory Commission
Office of Inspection and Enforcement
Peach Bottom Atomic Power Station
P. O. Box 399
Delta, Pennsylvania 17314

Director, Technical Assessment
Division
Office of Radiation Programs
(AW-459)
US EPA
Crystal Mall #2
Arlington, Virginia 20460

Region III Office
ATTN: EIS COORDINATOR
Curtis Building (Sixth Floor)
6th and Walnut Streets
Philadelphia, Pennsylvania 19106

M. J. Cooney, Superintendent
Generation Division - Nuclear
Philadelphia Electric Company
2301 Market Street
Philadelphia, Pennsylvania 19101

Government Publications Section
State Library of Pennsylvania
Education Building
Commonwealth and Walnut Streets
Harrisburg, Pennsylvania 17126

cc w/enclosure(s) & incoming dtd.:
8/1/78
Mr. R. A. Heiss, Coordinator
Pennsylvania State Clearinghouse
Governor's Office of State Planning
and Development
P. O. Box 1323
Harrisburg, Pennsylvania 17120



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. 72
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 August 1, 1978, 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.

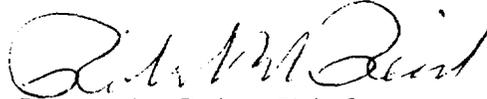
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-44 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 72, 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



Robert W. Reid, Chief
Operating Reactors Branch #4
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: August 1, 1980

ATTACHMENT TO LICENSE AMENDMENT NO. 72

FACILITY OPERATING LICENSE NO. DPR-44

DOCKET NO. 50-277

Replace the following page of the Appendix "A" Technical Specifications with the enclosed page. The revised page is identified by amendment number and contains vertical lines indicating the area of change.

Remove Page

165a

Insert Page

165a

LIMITING CONDITIONS FOR OPERATIONSURVEILLANCE REQUIREMENTS

c. Maximum suppression pool temperature:

- (1) During startup/hot standby and run modes, 95F. with the suppression pool temperature greater than 95F, except as permitted below, restore the temperature to <95F within 24 hours or be in hot shutdown within the next 12 hours and cold shutdown within the following 24 hours.
- (2) During testing which adds heat to the suppression pool, the water temperature shall not exceed 105F. Should the pool temperature exceed 105F, such testing shall be stopped and the pool temperature must be reduced to below the limit specified in (1) above within 24 hours or be in hot shutdown within the next 12 hours and cold shutdown within the following 24 hours.
- (3) The reactor shall be scrammed from any operating condition if the pool temperature reaches 110F. Power operation shall not be resumed until the pool temperature is reduced below the limit specified in (1) above.
- (4) During reactor isolation conditions, the reactor pressure vessel shall be depressurized to less than 200 psig at normal cooldown rates if the pool temperature reaches 120F.



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. 70
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 August 1, 1978, 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.

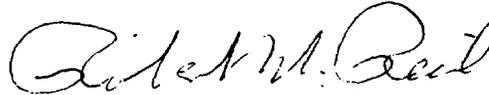
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-56 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 70, 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



Robert W. Reid, Chief
Operating Reactors Branch #4
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: August 1, 1980

ATTACHMENT TO LICENSE AMENDMENT NO. 70

FACILITY OPERATING LICENSE NO. DPR-56

DOCKET NO. 50-278

Replace the following page of the Appendix "A" Technical Specifications with the enclosed page. The revised page is identified by amendment number and contains vertical lines indicating the area of change.

Remove Page

165a

Insert Page

165a

LIMITING CONDITIONS FOR OPERATIONSURVEILLANCE REQUIREMENTS

- c. Maximum suppression pool temperature:
- (1) During startup/hot standby and run modes, 95F. with the suppression pool temperature greater than 95F, except as permitted below, restore the temperature to <95F within 24 hours or be in hot shutdown within the next 12 hours and cold shutdown within the following 24 hours.
 - (2) During testing which adds heat to the suppression pool, the water temperature shall not exceed 105F. Should the pool temperature exceed 105F, such testing shall be stopped and the pool temperature must be reduced to below the limit specified in (1) above within 24 hours or be in hot shutdown within the next 12 hours and cold shutdown within the following 24 hours.
 - (3) The reactor shall be scrammed from any operating condition if the pool temperature reaches 110F. Power operation shall not be resumed until the pool temperature is reduced below the limit specified in (1) above.
 - (4) During reactor isolation conditions, the reactor pressure vessel shall be depressurized to less than 200 psig at normal cooldown rates if the pool temperature reaches 120F.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

AMENDMENT NO. 72 TO LICENSE NO. DPR-44
AND
AMENDMENT NO. 70 TO LICENSE NO. DPR-56

PEACH BOTTOM ATOMIC POWER STATION UNITS 2 AND 3

PHILADELPHIA ELECTRIC COMPANY

DOCKET NOS. 50-277 AND 50-278

Introduction

In its letter dated August 1, 1978, the Philadelphia Electric Company (PECo) requested an amendment to the licenses for the Peach Bottom Atomic Power Station Units 2 and 3 to increase the maximum suppression pool temperature during normal plant operation from 90°F to 95°F. That request was made to allow for potentially high river water temperatures during the summer months which might result in suppression pool temperatures in excess of Technical Specification limit. Because of the recent heat wave over a large part of the continental United States, the suppression pool temperatures are nearing the existing Technical Specification limit.

Discussion

The Technical Specifications for the Peach Bottom plant require that: (1) in the event that the suppression pool temperature exceeds 90°F during normal plant operation, the plant shall be in a cold shutdown condition within 24 hours; (2) in the event that the suppression pool temperature exceeds 100°F during testing which adds heat to the pool, the pool temperature shall be reduced below 90°F in 24 hours or the plant shall be in a cold shutdown condition in the subsequent 24 hours; (3) in the event that the suppression pool temperature reaches 110°F, the reactor shall be scrammed and power operation shall not be resumed until the pool temperature is reduced below 90°F; and (4) in the event that the suppression pool temperature reaches 120°F during reactor isolation conditions, the reactor shall be depressurized to less than 200 psig at normal cooldown rates. These requirements stem from the initial conditions assumed in the containment response analyses for loss-of-coolant accident (LOCA) and safety-relief valve (SRV) discharge transients. In its submittal, PECo requested that the 90°F limit be increased to 95°F and provided analyses of the design basis LOCA and SRV discharge events which consider the revised limit.

Evaluation

With respect to LOCA transients, the principal considerations are (1) the containment design pressure and temperature, (2) the pressure and temperature envelope used for the environmental qualification of equipment

located within the containment, (3) the net positive suction head (NPSH) for the Emergency Core Cooling System (ECCS) pumps, and (4) the maximum suppression pool temperature for steam condensation. To address these considerations, PECO submitted the original suppression chamber response analyses for Peach Bottom, which used the 90°F initial condition, and compared it to similar analyses for the Browns Ferry plant, which used a 95°F limit. Based on this comparison, PECO concluded that the resultant change is in the order of 5°F (with a corresponding pressure change of approximately 0.5 psi).

Both analyses were performed using assumptions for containment response analyses which are acceptable to the staff (Standard Review Plan, Section 6.2.1.1.C). Further, we concur that these analyses are reasonably comparable. Based on the comparison presented, we conclude that the resultant containment response for Peach Bottom with an initial pool temperature of 95°F will be well within the design values of 56 psig and 281°F and the change in the envelope used for environmental qualification will be insignificant.

With respect to NPSH, PECO submitted a comparison of the minimum required NPSH for the ECCS pumps with that obtained with the minimum containment pressure. These analyses indicate that there is at least a two to three psi margin in the NPSH. These analyses hypothetically assumed a maximum pool temperature of 202°F in conjunction with a 0 psig containment pressure, in accordance with the requirements of Regulatory Guide 1.1, and are, therefore, acceptable.

The original design basis LOCA for the Peach Bottom plant was predicated on maintaining the pool temperature below 170°F to assure complete consideration of the steam evolving from the postulated break and the subsequent removal of heat from the containment via the suppression pool and the Residual Heat Removal (RHR) system. The 170°F limit was based on data from the Bodega Bay and Humboldt Bay test facilities which formed the original basis for the containment design, as described in the plant's Final Safety Analysis Report (FSAR). The suppression pool temperature response in the licensee's submittal and the FSAR show a peak pool temperature of approximately 190° at 10 hours after the postulated accident for minimum cooling capability. However, steaming from the break ends much earlier in the transient (i.e., within minutes) and subsequent heat removal from the core to the pool is via subcooled ECCS water. The pool temperature reached 170°F at approximately 1.1 hours for an initial pool temperature of 90°F and approximately 15 minutes sooner for an initial pool temperature of 95°F, still well after steaming has stopped. Further, recent tests in the Mark I Full Scale Test Facility (General Electric topical report NEDE-24539) have indicated condensation effectiveness at pool temperatures above 170°F. Therefore, we conclude that the

proposed change will not adversely affect the condensation effectiveness or the heat removal capability of the containment system.

With regard to SRV discharge transients, the limiting event is a stuck-open valve. In its submittal, PECO presented revised pool temperature transients for the SRV discharge events. For the limiting event, the controlling parameter is the time of reactor scram. Since the Technical Specification requirement for reactor scram at a pool temperature of 110°F has not been changed, we conclude that the proposed change will not significantly affect the SRV discharge transients.

Summary

Based on the evaluation described above, we conclude that the proposed increase in the maximum suppression pool temperature during normal plant operation from 90°F to 95°F will not adversely affect the containment design basis and is, therefore, 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 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 the amendments.

Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the amendments do not involve a significant increase in the probability or consequences of accidents previously considered and do not involve a significant decrease in a safety margin, the amendments do 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 the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Dated: August 1, 1980

UNITED STATES NUCLEAR REGULATORY COMMISSION

7590-01

DOCKETS NOS. 50-277 AND 50-278

PHILADELPHIA ELECTRIC COMPANY, ET AL

NOTICE OF ISSUANCE OF AMENDMENTS TO FACILITY
OPERATING LICENSES

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendments Nos. 72 and 70 to Facility Operating Licenses Nos. DPR-44 and DPR-56, issued to Philadelphia Electric Company, Public Service Electric and Gas Company, Delmarva Power and Light Company, and Atlantic City Electric Company, which revised Technical Specifications for operation of the Peach Bottom Atomic Power Station, Units Nos. 2 and 3 (the facility) located in York County, Pennsylvania. The amendments are effective as of the date of issuance.

The amendments revise the Technical Specifications regarding suppression pool temperature limits for routine startup and power operation conditions and for periods of testing which add heat to the suppression pool.

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. Prior public notice of these amendments was not required since the amendments do not involve a significant hazards consideration.

The Commission has determined that the issuance of these amendments will not result in any significant environmental impact and that pursuant to 10 CFR 51.5(d)(4) an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with issuance of these amendments.

For further details with respect to this action, see (1) the application for amendments dated August 1, 1978, (2) Amendments Nos. 72 and 70 to Licenses Nos. DPR-44 and DPR-56, 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, NW, Washington, DC and at the Government Publications Section, State Library of Pennsylvania, Education Building, Commonwealth and Walnut Streets, Harrisburg, Pennsylvania. A copy of items (2) and (3) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, DC 20555, Attention: Director, Division of Licensing.

Dated at Bethesda, Maryland, this 1st day of August 1980.

FOR THE NUCLEAR REGULATORY COMMISSION



Robert W. Reid, Chief
Operating Reactors Branch #4
Division of Licensing