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JUL 20 1977

Docket No. 50-278

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

Gentlemen:

The Commission has issued the enclosed Amendment No. 36 to Facility Operating License No. DPR-56 for the Peach Bottom Atomic Power Station, Unit No. 3. The amendment consists of changes to the Technical Specifications and is in response to your request dated July 19, 1977.

The amendment will modify the Technical Specifications to revise, on an interim basis, the maximum allowable time permitted for the Reactor Core Isolation Cooling System (RCIC) to be out-of-service.

Copies of the Safety Evaluation and the FEDERAL REGISTER Notice are also enclosed.

Sincerely,

Original signed by

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

Enclosures:

1. Amendment No. 36
2. Safety Evaluation
3. FEDERAL REGISTER Notice

cc w/enclosures:
See next page

Verbal concurrence from O&E 7/20/77 DmVern...

Handwritten signatures and initials: O&E, RSB, 7/20/77, CMB

OFFICE >	ORB #3	ORB #3	OELD	ORB #3		
SURNAME >	CParrish	DVerrelli:mj		Glear		RSB
DATE >	7/20/77	7/20/77	7/ /77	7/20/77		7/20/77



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

July 20, 1977

Docket No. 50-278

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

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Copies of the Safety Evaluation and the FEDERAL REGISTER Notice are also enclosed.

Sincerely,

A handwritten signature in cursive script that reads "George Lear".

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

Enclosures:

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2. Safety Evaluation
3. FEDERAL REGISTER Notice

cc w/enclosures:
See next page

Philadelphia Electric Company

- 2 -

cc:

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Philadelphia Electric Company
Assistant General Counsel
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Philadelphia, Pennsylvania 19101

Troy B. Conner, Jr.
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Washington, D. C. 20006

Raymond L. Hovis, Esquire
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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

Mr. R. A. Heiss, Coordinator
Pennsylvania State Clearinghouse
Governor's Office of State Planning
and Development
P. O. Box 1323
Harrisburg, Pennsylvania 17120

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

Chief, Energy Systems Analysis Branch (AW-459)
Office of Radiation Programs
U. S. Environmental Protection Agency
Room 645, East Tower
401 M Street, S. W.
Washington, D. C. 20460

U. S. Environmental Protection Agency
Region III Office
ATTN: EIS COORDINATOR
Curtis Building (Sixth Floor)
6th and Walnut Streets
Philadelphia, Pennsylvania 19106

Martin Memorial Library
159 E. Market Street
York, Pennsylvania 17401



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. 36
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 and Gas Company, Delmarva Power and Light Company, and Atlantic City Electric Company (the licensees), dated July 19, 1977, 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.

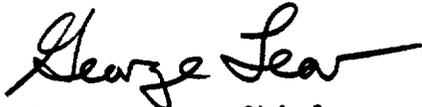
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C(2) of Facility Operating License No. DPR-56 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 36, are hereby incorporated in the license. The licensee 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



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

Attachment:
Changes to the Technical
Specifications

Date of Issuance: July 20, 1977

ATTACHMENT TO LICENSE AMENDMENT NO. 36

TO THE TECHNICAL SPECIFICATIONS

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 page is identified by Amendment number and contains vertical lines indicating the area of change. The corresponding overleaf page 129 is also provided to maintain document completeness. No change was made on page 129.

Remove

129

130

Replace

129

130

LIMITING CONDITIONS FOR OPERATION

SURVEILLANCE REQUIREMENT

3.5.C HPCI Subsystem (cont'd.)

4.5.C HPCI Subsystem (cont'd.)

	<u>Item</u>	<u>Frequency</u>
(b)	Pump Operability	Once/month
(c)	Motor Operated Valve Operability	Once/month
(d)	Flow Rate at ~1000 psig Steam Pressure	Once/3 months
(e)	Flow Rate at 150 psig Steam Pressure	Once/operating cycle

2. From and after the date that the HPCI Subsystem is made or found to be inoperable for any reason, continued reactor operation is permissible only during the succeeding seven days unless such subsystem is sooner made operable, providing that during such seven days all active components of the ADS subsystem, the RCIC system, the LPCI subsystem and both core spray subsystems are operable.
3. If the requirements of 3.5.C cannot be met, an orderly shutdown shall be initiated and the reactor shall be in a Cold Shutdown Condition within 24 hours.

- The HPCI pump shall deliver at least 5000 gpm for a system head corresponding to a reactor pressure of 1000 to 150 psig.
2. When it is determined that the HPCI Subsystem is inoperable the RCIC, the LPCI subsystem, both core spray subsystems, and the ADS subsystem actuation logic shall be demonstrated to be operable immediately. The RCIC system and ADS subsystem logic shall be demonstrated to be operable daily thereafter.

LIMITING CONDITIONS FOR OPERATION

SURVEILLANCE REQUIREMENT

3.5.D Reactor Core Isolation Cooling (RCIC) Subsystem

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

2. From and after the date that the RCICS is made or found to be inoperable for any reason, continued reactor power operation is permissible only during the succeeding seven days provided that during such seven days the HPCIS is operable. *

3. If the requirements of 3.5.D cannot be met, an orderly shutdown shall be initiated and the reactor pressure shall be reduced to 105 psig within 24 hours.

4.5.D Reactor Core Isolation Cooling (RCIC) Subsystem

1. RCIC Subsystem testing shall be performed as follows:

<u>Item</u>	<u>Frequency</u>
(a) Simulated Automatic Actuation Test	Once/operating cycle
(b) Pump Operability	Once/ month
(c) Motor Operated Valve Operability	Once/ month
(d) Flow Rate at ~1000 psig Steam Pressure	Once/3 months
(e) Flow Rate at ~150 psig Steam Pressure	Once/operating cycle

- The RCIC pump shall deliver at least 600 gpm for a system head corresponding to a reactor pressure of 1000 to 150 psig.
2. When it is determined that the RCIC subsystem is inoperable, the HPCIS shall be demonstrated to be operable immediately and weekly thereafter.
- * During the period July 13, through August 13, 1977, continued power operation with an inoperable RCIC is permitted provided that the HPCI is demonstrated to be operable daily.

SAFETY EVALUTION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 36 TO FACILITY LICENSE NO. DPR-56

PHILADELPHIA ELECTRIC COMPANY

PEACH BOTTOM ATOMIC POWER STATION

UNIT NO. 3

DOCKET NO. 50-278



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 36 TO FACILITY LICENSE NO. DPR-56

PHILADELPHIA ELECTRIC COMPANY

PEACH BOTTOM ATOMIC POWER STATION

UNIT NO. 3

DOCKET NO. 50-278

INTRODUCTION

On July 19, 1977, Philadelphia Electric Company (PECo) requested an interim Amendment to Facility Operating License No. DPR-56. The amendment would modify the Technical Specifications for the Peach Bottom Atomic Power Station Unit No. 3 to revise, on an interim basis, the maximum allowable time permitted for the Reactor Core Isolation Cooling System (RCIC) to be out-of-service.

BACKGROUND

On July 11, 1977, the inner isolation valve on the steam line to the RCIC turbine was found to be inoperable. The apparent malfunction was traced to a failed torque switch (or limit switch) within the valve operator located inside the drywell. Operability of the RCIC was maintained by: (1) opening the inner isolation valve, (2) closing the (normally) closed outer isolation valve, (3) pressurizing the steam line to the RCIC turbine downstream of the outer isolation valve by using a temporary 1/2 inch line outside the drywell, and (4) periodically testing the outer isolation valve. Every four hours, the outer isolation valve was opened for a short period and then reclosed in order to assure no accumulation of water upstream of this valve.

On July 13, 1977, following the opening of the outer isolation valve, it failed to reclose on the initial attempt from the control room. The RCIC was declared inoperable. Pursuant to Technical Specifications 4.5.D.2, the licensee successfully performed the required surveillance test to demonstrate the operability of the HPCI system. The current Technical Specifications allow continued operation with the inoperable RCIC for a period of 7 days.

The applicant said that at the time (July 19, 1977) of his request for interim amendment, the Pennsylvania-New Jersey-Maryland (PJM) Interconnection, of which Philadelphia Electric Company is a member, was operating at Maximum Emergency Generation conditions and capacity was expected to remain short for the duration of the existing weather conditions. Adjacent power pools were also short of meeting their desired generation. With a projected interconnection load of approximately 31,000 MW for July 19, 1977 and higher loads expected for the subsequent five days, the shutdown of Unit No. 3 (operating at full power of 1000 MW) would have resulted in a severe reduction in the ability of the Interconnection to meet its reserve requirements for reliable operation. In light of the foregoing, PECO requested authorization to continue operation of Unit No. 3 until the interconnection energy generation status permitted shutdown of Unit No. 3 for repairs, but in no case, beyond 31 days.

EVALUATION

The RCIC for Peach Bottom Unit No. 3 is not an Emergency Core Cooling System (ECCS). It is a subsystem of the Reactor Coolant System. The function of the RCIC is to provide makeup water to the reactor core in the event that the reactor becomes isolated from the main condenser simultaneously with the loss of the reactor feedwater system. There are two systems, in addition to the RCIC, that are available to provide cooling water to the reactor core upon loss of feedwater with the vessel isolated. These two systems are: (1) the High Pressure Coolant Injection System (HPCI) and (2) the Low Pressure Coolant Injection System (LPCI). Should the HPCI not be available to provide high pressure core makeup water, the Automatic Depressurization System (ADS) will function to reduce reactor vessel pressure, thereby assuring timely core cooling via the LPCI.

The current Technical Specifications permit continued power operation with an inoperable RCIC system based on the demonstration of operability of the HPCI system; however, an administrative limit of 7 days is currently specified. Since compensatory systems are available during the period the RCIC is inoperative, the staff has previously approved on specific occasions reactor operations with an inoperative RCIC beyond the 7 day limit (See Amendment No. 18 to Facility Operating License No. DPR-30 for the Quad Cities Station Unit No. 2). The HPCI is capable of providing all feedwater requirements in the absence of the RCIC. We, however, have also considered the potential effects of a concurrent failure of the HPCI with loss of feedwater during the period with the RCIC out of service.

In this event, the operator can manually activate the ADS and supply ample water through the LPCI. This may take a period of a few minutes following the transient. The decay heat during this period will result in lowering the vessel water level so that portions of the core may become uncovered. However, at this point decay heat is substantially reduced and core temperature should remain well within damage limits. Upon injection after pressure reduction utilizing the ADS, the LPCI will provide adequate cooling.

The conclusion that core temperatures will not result in core damage is supported by the analysis provided for Quad Cities, although this analysis is not directly applicable to Peach Bottom Unit No. 3. We have also discussed this matter with PECO who is performing similar calculations for Peach Bottom Unit No. 3 and have informed us that the preliminary results for Peach Bottom are consistent with the Quad Cities results.

We have instructed PECO to provide such analysis specifically for Peach Bottom within 7 days, to provide quantitative confirmation of the staff assessment contained herein.

We have evaluated the PECO submittal and have determined that for this specific occasion we can approve an interim extension of time for continued power operation of Peach Bottom Unit No. 3 with an inoperable RCIC. This determination is based on the following: (1) the RCIC is a non-ECCS system; (2) the redundant HPCI system can provide a means of injecting coolant into the reactor vessel at normal operating pressure; (3) the increased surveillance testing of the HPCI system should assure its operability in the event that it is required; (4) the LPCI in conjunction with the ADS provides redundancy for the HPCI.

ENVIRONMENTAL CONSIDERATION

We have determined that the amendment does 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 amendment involves 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 this amendment.

CONCLUSION

We have concluded, based on the considerations discussed above, that: (1) because the amendment 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 amendment 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: July 20, 1977

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-278

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

NOTICE OF ISSUANCE OF AMENDMENT TO FACILITY
OPERATING LICENSE

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 36 to Facility Operating License No. 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, Unit No. 3 (the facility) located in Peach Bottom, York County, Pennsylvania. The amendment is effective as of its date of issuance.

The amendment consists of changes in the Technical Specifications to revise, on an interim basis, the maximum allowable time permitted for the Reactor Core Isolation Cooling System (RCIC) to be out-of-service.

The application for the amendment 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 amendment. Prior public notice of this amendment was not required since the amendment does not involve a significant hazards consideration.

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

For further details with respect to this action, see (1) the application for amendment dated July 19, 1977, (2) Amendment No. 36 to License No. 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, N. W., Washington, D. C. and at the Martin Memorial Library, 159 E. Market Street, York, Pennsylvania 17401. A copy of items (2) and (3) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Operating Reactors.

Dated at Bethesda, Maryland, this 20th day of July 1977.

FOR THE NUCLEAR REGULATORY COMMISSION



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