

Docket No. 50-278

DECEMBER 7 5 1978

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

Dear Mr. Bauer:

The Commission has issued the enclosed Amendment No. 49 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 December 13, 1978.

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 a related Notice of Issuance are also enclosed.

Sincerely,

Original signed by

Thomas A. Ippolito, Chief  
Operating Reactors Branch #3  
Division of Operating Reactors

Enclosures:

1. Amendment No. 49
2. Safety Evaluation
3. Notice

cc w/enclosures:  
see next page

7901050334

CP

CP-1

P

OFFICE	ORB#3	ORB#3	OELD	ORB#3	PS
SURNAME	PKreutzer:acr	DVerrelli	CUTCHIN	Tippolito	PCheck
DATE	12/15/78	12/14/78	12/15/78	12/15/78	12/14/78

Mr. Edward G. Bauer, Jr.

- 2 -

December 15, 1978

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

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

Edward G. Greenman  
Nuclear Regulatory Commission  
Office of Inspection and Enforcement  
631 Park Avenue  
King of Prussia, Pennsylvania 19406

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



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. 49  
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 December 13, 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.

7901050341.

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. 49, 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

  
Thomas A. Ippolito, Chief  
Operating Reactors Branch #3  
Division of Operating Reactors

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: December 15, 1978

ATTACHMENT TO LICENSE AMENDMENT NO. 49

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

PBAPS

LIMITING CONDITIONS FOR OPERATION

SURVEILLANCE REQUIREMENT

3.5.C HPCI Subsystem (cont'd.)

4.5.C HPCI Subsystem (cont'd.)

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.

	<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

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 RCIC 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 December 12, 1978 through January 13, 1979, continued power operation with an inoperable RCIC is permitted provided that the HPCI is demonstrated to be operable weekly.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 49 TO FACILITY LICENSE NO. DPR-56

PHILADELPHIA ELECTRIC COMPANY

PEACH BOTTOM ATOMIC POWER STATION

UNIT NO. 3

DOCKET NO. 50-278

Introduction

By letter dated December 13, 1978, 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 December 12, 1978, the Peach Bottom Unit No. 3 Reactor Core Isolation Cooling (RCIC) system was declared inoperable due to inoperability of the isolation valves in the steam line to the RCIC turbine. Technical Specification 3.5.D.2 permits the operation of the Unit No. 3 reactor for a period of seven days with an inoperable RCIC system, provided that the High Pressure Coolant Injection (HPCI) system is operable.

The licensee stated that prior to this occurrence a one week outage of the Peach Bottom Unit No. 3 had been scheduled for January, 1979, with the Pennsylvania - New Jersey - Maryland Interconnection in order to perform minor preventative maintenance and electrical inspection. Due to manpower availability and work coordination, a shutdown at this time to make the necessary repairs to the RCIC inner valve would not be extended to include the work scheduled for mid-January.

7901050347

In order to minimize Unit startup and shutdown transients, improve generation availability, and maximize the effectiveness of maintenance outages, the licensee requested authorization to continue operation of Unit No. 3 with the RCIC system inoperable beyond the seven days permitted by Section 3.5.D.2 of the Technical Specifications. It was requested that Section 3.5.D.2 be temporarily modified to permit continued reactor operation with the RCIC system inoperable until the scheduled shutdown of the unit in January 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. 36 to Facility Operating License DPR-56 for the Peach Bottom Unit No. 3). The HPCI is capable of providing all feedwater requirements in the absence of the RCIC. We have previously considered the potential effects of a concurrent failure of the HPCI with loss of feedwater during the period with the RCIC out of service (Reference 1, 2).

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 Peach Bottom Unit No. 3 (Reference 2).

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; (5) core temperatures should remain well within damage limits even with the concurrent loss of HPCI and loss of feedwater.

#### 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 Section 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: December 15, 1978

References:

1. Safety Evaluation by NRR Supporting Amendment No. 36 to DPR-56, July 20, 1977.
2. Letter, PECO (Cooney) to NRC (Lear), August 1, 1977.

UNITED STATES NUCLEAR REGULATORY COMMISSIONDOCKET NO. 50-278PHILADELPHIA ELECTRIC COMPANY  
PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
DELMARVA POWER AND LIGHT COMPANY  
ATLANTIC CITY ELECTRIC COMPANYNOTICE OF ISSUANCE OF AMENDMENT TO FACILITY  
OPERATING LICENSE

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 49 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.

7901050350

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 December 13, 1978, (2) Amendment No. 49 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 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, D. C. 20555, Attention: Director, Division of Operating Reactors.

Dated at Bethesda, Maryland, this 15th day of December 1978.

FOR THE NUCLEAR REGULATORY COMMISSION

  
Thomas A. Ippolito, Chief  
Operating Reactors Branch #3  
Division of Operating Reactors