LICENSE AUTHORITY FILE COPY April 6, 1988

Dockets Nos. 50-277(278)

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DO NOT REMOVE

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

Dear Mr. Bauer:

SUBJECT: SURVEILLANCE TEST OF RPS ALTERNATE POWER SUPPLY UNDERVOLTAGE PROTECTIVE DEVICE (TAC NOS. 61947 AND 61948)

RE: PEACH BOTTOM ATOMIC POWER STATION, UNIT NOS. 2 AND 3

The Commission has issued the enclosed Amendments Nos. 130 and 133 to Facility Operating License Nos. DPR-44 and DPR-56 for the Peach Bottom Atomic Power Station, Unit Nos. 2 and 3. These amendments consist of changes to the Technical Specifications in response to your application dated June 30, 1986 as supplemented on April 27, 1987.

These amendments add surveillance requirements for the time delay feature of the undervoltage protective device for the reactor protection system alternate power supply.

A copy of the Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's Bi-Weekly Federal Register Notice.

Sincerely,

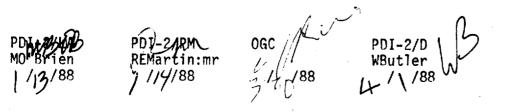
/s/

Robert E. Martin, Project Manager Project Directorate I-2 Division of Reactor Projects I/II Office of Nuclear Reactor Regulation

Enclosures:

- 1. Amendment No. 130 to DPR-44
- 2. Amendment No. 133 to DPR-56
- 3. Safety Evaluation

cc w/enclosures: See next page





April 6, 1988

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cc w/enclosures: See next page Mr. E. G. Bauer, Jr. Philadelphia Electric Company

cc:

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

Philadelphia Electric Company ATTN: Mr. D. M. Smith, Manager Peach Bottom Atomic Power Station Route 1, Box 208 Delta, Pennsylvania 17314

Mr. J. W. Gallagher, Vice President Nuclear Operations Philadelphia Electric Company 2301 Market Street Philadelphia, Pennsylvania 19101

Mr. W. M. Alden Engineer-In-Charge-Licensing Philadelphia Electric Company 2301 Market Street Philadelphia, Pennsylvania 19101

Morgan J. Morris, III General Manager - Operating Services Atlantic Electric P. O. Box 1500 1199 Black Horse Pike Pleasantville, New Jersey 08232

Resident Inspector U. S. Nuclear Regulatory Commission Peach Bottom Atomic Power Station P. O. Box 399 Delta, Pennsylvania 17314

Regional Administrator, Region I U. S. Nuclear Regulatory Commission 631 Park Avenue King of Prussia, Pennsylvania 19406 Peach Bottom Atomic Power Station, Units 2 and 3

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

Mr. Thomas M. Gerusky, Director Bureau of Radiation Protection Pennsylvania Department of Environmental Resources P.O. Box 2063 Harrisburg, Pennsylvania 17120

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

Mr. Gary Mock P.O. Box 09181 Columbus, Ohio 43209

Mr. Thomas S. Shaw, Jr. Vice President - Production Delmarva Power and Light Company 800 King Street Wilmington, Delaware 19899

Mr. Tom Magette Power Plant Research Program Department of Natural Resources B-3 Tawes State Office Building Annapolis, Maryland 21401

Mr. Roland Fletcher Department of Environment 201 West Preston Street Baltimore, Maryland 21201



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. 130 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 June 30, 1986 as supplemented on April 27, 1987, 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 or 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.
- 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. 130, 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 its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/s/

Walter R. Butler, Director Project Directorate I-2 Division of Reactor Projects I/II

Attachment: Changes to the Technical Specifications

Date of Issuance: April 6, 1988

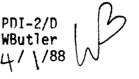
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The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 130, are hereby incorporated in the license. PECO shall operate the facility in accordance with the Technical Specifications.

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

FOR THE NUCLEAR REGULATORY COMMISSION

IC.#

Walter R. Butler, Director Project Directorate I-2 Division of Reactor Projects I/II

Attachment: Changes to the Technical Specifications

Date of Issuance: April 6, 1988

ATTACHMENT TO LICENSE AMENDMENT NO. 130

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 areas are indicated by marginal lines.

Remove	Insert

36a

36a

		PBAPS Unit 2		
LIMITING CONDITIONS FO	ITING CONDITIONS F(OPERATION	SU	RVEL ANCE REQUIREMENTS	
2**	One trip train* of the RPS alternate power supply may be in the bypassed or inoperative condition for a period of 72 hours. If this condition cannot be satisfied, or if both trip trains are inoperative, the RPS bus shall be transferred to the RPS MG	2**	The following RPS alternate power supply protective devices shall be functionally tested at least once every six months and calibrated once each refueling outage. Acceptable	

DeviceSettingUndervoltage113 ± 2 VoltsOvervoltage131 ± 2 VoltsUnderfrequency57 Hz ± .2 HzUndervoltageMax. 4 seconds

- * A trip train consists of one breaker, one undervoltage relay, one overvoltage relay, one underfrequency relay, one time delay relay (MG set only), and the associated logic.
- ** Effective upon installation of the protective trip devices.

Amendment No. 99, 130

set or de-energized within

30 minutes.

-36a-



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. 133 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 June 30, 1986 as supplemented on April 27, 1987, 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 or 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.
- 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) <u>Technical Specifications</u>

The Technical Specifications contained in Appendices A and B, as revised through Amendment No.133, 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 its date of issuance.

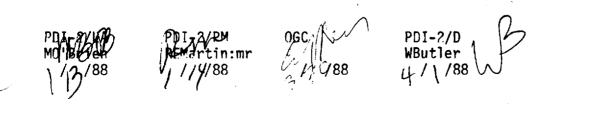
FOR THE NUCLEAR REGULATORY COMMISSION

/s/

Walter R. Butler, Director Project Directorate I-2 Division of Reactor Projects I/II

Attachment: Changes to the Technical Specifications

Date of Issuance: April 6, 1988



(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 133, 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 its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

the R. Butter

Walter R. Butler, Director Project Directorate I-2 Division of Reactor Projects I/II

Attachment: Changes to the Technical Specifications

Date of Issuance: April 6, 1988

ATTACHMENT TO LICENSE AMENDMENT NO. 133

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 areas are indicated by marginal lines.

Remove	Insert

36a

36a

		L	PBAPS	Unit 3		
LIMITING	CONDITIONS FOr	PERATION	SU	RVEII	NCE REQUIR	EMENTS
alt be inc a r cor or	2** One trip train* of the RPS alternate power supply may be in the bypassed or inoperative condition for a period of 72 hours. If this condition cannot be satisfied, or if both trip trains are inoperative, the RPS bus shall		2**	The following RPS alternate power supply protective devices shall be functionally tested at least once every six months and calibrated once each refueling outage.		
be set	transferred to (or de-energized minutes.	the RPS MG		Devic	<u>e</u>	Acceptable Setting
				Overv Under	voltage oltage frequency voltage	113 <u>+</u> 2 Volts 131 <u>+</u> 2 Volts 57 Hz <u>+</u> .2 Hz

Time Delay

Max. 4 seconds

* A trip train consists of one breaker, one undervoltage relay, one overvoltage relay, one underfrequency relay, one time delay relay (MG set only), and the associated logic.

** Effective upon installation of the protective trip devices.

Amendment No. 101, 133 -

-36a-

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION SUPPORTING

AMENDMENT NOS. 130 AND 133 TO FACILITY OPERATING

LICENSE 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, UNIT NOS. 2 AND 3

DOCKET NOS. 50-277 AND 50-278

1.0 INTRODUCTION

NUCLEAR REGUL

By letter dated June 30, 1986 as supplemented on April 27, 1987, Philadelphia Electric Company requested an amendment to Facility Operating License Nos. DPR-44 and DPR-56 for Peach Bottom Atomic Power Station, Unit Nos. 2 and 3. The amendments add a surveillance requirement for a 4-second time delay feature which has been incorporated into the design of the undervoltage protective device for the reactor protection system (RPS) alternate power supply. The April 27 supplemental information did not amend the scope of the original application dated June 30, 1986.

The time delay has been incorporated into the design to prevent unnecessary tripping of the RPS alternative power supply due to momentary voltage fluctuations. This time delay is needed because of voltage fluctuations experienced at the Peach Bottom Power Station when large motors are started.

Peach Bottom Technical Specifications (TS) currently require a calibration check of the undervoltage protective device for the reactor protection system alternate power supply. However, the time delay feature of this undervoltage protective device was not identified in the Technical Specifications. The NRC staff, in an April 15, 1985 telephone conversation regarding this matter, requested that the surveillance requirement of the Technical Specifications specify the appropriate testing for the time delay features. The subject amendment application responds to this request.

2.0 EVALUATION

Technical Specification 4.1.D.2, Reactor Protection System Power Supply, has been amended to require periodic surveillance of the time delay that has been incorporated into the design of the undervoltage protective device for the reactor protection system alternate power supply. The licensee, in justification of this amendment, stated that the use of the time delay (4 second maximum) for undervoltage tripping will not have any adverse effect on components of the Reactor Protection System (RPS) including the scram solenoid valves. The lowest voltage expected at the scram solenoid valves during a transient has been calculated to be greater than 95 volts. Since the lowest expected transient voltage is above the manufacturer's minimum limit of 95 volts, the licensee concluded that there will be no degradation of the solenoid valves.

The staff agrees with the licensee's conclusion in that there will be no degradation of the solenoid valves provided they are not subject to voltage transients below the 95 volt minimum limit recommended by the manufacturer.

For voltage levels below the 95 volt limit, the licensee, by letter dated April 27, 1987, indicated that the effect of low voltage on scram solenoid valves has been established by tests performed by General Electric in 1986. The General Electric testing determined that the solenoid valves can be subjected to voltages below 95 volts with no degradation on their ability to perform their safety function. The licensee, based on these tests, concluded that an abnormal voltage below 95 volts for four seconds will not adversely affect the solenoid valves. The staff agrees with this conclusion and thus considers this item to be acceptably resolved.

In regard to other equipment, the licensee has indicated, by letter dated April 27, 1987, that the RPS logic relays and scram-contactors are the only other equipment supplied through the RPS power supply that could be potentially affected by voltages below 113 volts. For these relays and contactors, the licensee stated that they do not expect voltages between 113 and 95 volts to affect the operation of this equipment. For voltages below 95 volts, the licensee stated that the relays and contactors will drop out thereby satisfying their safety function.

Because long time periods (much greater than 4-seconds) of equipment operation at degraded voltage conditions are needed to produce overheating and equipment failure and because degraded voltage conditions will be limited to a maximum of 4-seconds and will occur infrequently when the alternate RPS power supply is in use and large motors are started, the staff agrees with the licensees conclusion that degraded voltage levels are not expected to affect the operation of the RPS relays and scram contactors. Based on the above, the staff considers this item to be acceptably resolved.

3.0 ENVIRONMENTAL CONSIDERATIONS

These amendments involve a change to a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes to the surveillance requirements. The staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite and that there is no significant increase in individual or cumulative occupational radiation

exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration and there has been no public comment on such finding. Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement nor environmental assessment need be prepared in connection with the issuance of the amendments.

4.0 CONCLUSION

The Commission made a proposed determination that the amendments involve no significant hazards consideration which was published in the <u>Federal</u> <u>Register</u> (51 FR 30579) on August 27, 1986 and consulted with the <u>State</u> of Pennsylvania. No public comments were received and the State of Pennsylvania did not have any comments.

The staff has 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 the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: J. Knox

Dated: April 6, 1988