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April 6, 1988

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Amdt. 133
to DPR-56

Dockets Nos. 50-277/278

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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

PDI-2/LA	PDI-2/PM	OGC	PDI-2/D
MO'Brien	REMartin:mr		WButler
1/13/88	4/14/88	4/14/88	4/1/88

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

April 6, 1988

Dockets Nos. 50-277/278

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Philadelphia Electric Company
2301 Market Street
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Robert E. Martin, Project Manager
Project Directorate I-2
Division of Reactor Projects I/II
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See next page

cc:
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Pennsylvania Department of
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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. 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.

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. 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

EReis cpncurred
on 3/30/88

PDI-2/LA	PDI-2/PM	OGC	PDI-2/D
MO'Brien	JREMartin:mr		WButler
1/13/88	1/14/88	/88	4/1/88

(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

Walter R. Butler

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

LIMITING CONDITIONS FOR OPERATION	SURVEILLANCE 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 set or de-energized within 30 minutes.	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.

Device	Acceptable Setting
Undervoltage	113 ± 2 Volts
Overvoltage	131 ± 2 Volts
Underfrequency	57 Hz ± .2 Hz
Undervoltage 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.

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. 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.

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.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

PDI-2/LA	PDI-2/PM	OGC	PDI-2/D
MO'Brien	REMartin:mr		WButler
1/13/88	1/14/88	3/4/88	4/1/88

(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

Walter R. Butler

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

LIMITING CONDITIONS FOR OPERATION	SURVEILLANCE 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 set or de-energized within 30 minutes.	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.

Device	Acceptable Setting
Undervoltage	113 ± 2 Volts
Overvoltage	131 ± 2 Volts
Underfrequency	57 Hz ± .2 Hz
Undervoltage 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.

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

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

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 Federal Register (51 FR 30579) on August 27, 1986 and consulted with the State 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