

7/27/76

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Dockets Nos. 50-277  
and 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. 20 to Facility Operating License No. DPR-44 and Amendment No. 20 to Facility Operating License No. DPR-56 for the Peach Bottom Atomic Power Station, Units 2 and 3. These amendments consist of changes to the Technical Specifications and are in response to your request dated July 23, 1975.

The amendments will revise the provisions in the Environmental Technical Specifications relating to the monitoring of free residual chlorine and to the quantities of eight chemicals used in plant operation.

Copies of: (1) a Notice of Issuance of Amendment to Facility Operating License and Negative Declaration, and (2) Environmental Impact Appraisal are also enclosed for your information. Item (1) is being filed with the Office of the Federal Register for publication.

Sincerely,

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

Enclosures:

1. Amendment No. 20 to DPR-44
2. Amendment No. 20 to DPR-56
3. Federal Register Notice and Negative Declaration
4. Environmental Impact Appraisal

*Package was received from ELD 7/1/76.*

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Philadelphia Electric Company

cc:

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Annapolis, Maryland 21401

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and Development  
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Board of Supervisors  
Peach Bottom Township  
R. D. #1  
Delta, Pennsylvania 17314

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. 50-277

PEACH BOTTOM ATOMIC POWER STATION, UNIT 2

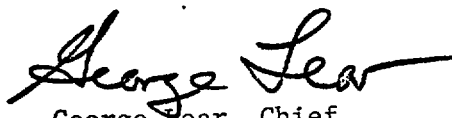
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 20  
License No. DPR-44

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 23, 1975, 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; and
  - 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.
  - 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 a change to the Technical Specifications as indicated in the attachment to this license amendment.

2. Accordingly, the license is amended by a change to the Technical Specifications as indicated in the attachment to this license amendment.
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 27, 1976

ATTACHMENT TO LICENSE AMENDMENT NO. 20

TO THE TECHNICAL SPECIFICATIONS

FACILITY OPERATING LICENSE NO. DPR-44

DOCKET NO. 50-277

Replace page 5c, 9 and 10 with the attached revised pages. No change has been made on page 10.

PROTECTION LIMITS (Continued)

2.2 Chemical

2.2.1 Biocides

Objective

To minimize adverse effects on aquatic biota which may result from the chlorine used to control fouling organisms within the station.

Specification

The concentration of total residual chlorine at the point of discharge to the Conowingo Pond shall not be greater than 0.1 mg/liter. The period of chlorine addition to a condenser stream shall not exceed one hour per day. The total period of chlorine addition to the condenser circulating water systems and to the cooling tower systems shall not exceed two hours per day.

MONITORING REQUIREMENTS (Continued)

3.2 Chemical

3.2.1 Biocides

Objective

To assure that chlorine discharges are maintained in accordance with the environmental technical specification.

Specification

Free residual chlorine shall be being chlorinated. The chlorine analyzer shall be calibrated monthly. In the event the continuous chlorine analyzer is inoperable, manual measurements of the free residual chlorine level in the condenser discharge water shall be made at the start, midpoint, and end of chlorination.

## PBAPS

TABLE 2.2.4-1  
ESTIMATED CHEMICAL USAGE

<u>CHEMICAL</u>	<u>ESTIMATED USAGE (lbs/year)</u>	<u>ESTIMATED RELEASES (lbs/year)</u>	<u>REMARKS</u>
Alum	80,000	0	
Boric Acid	3,000	0	
Borax	3,000	0	
Calcium Hypochlorite	5,000	5,000	Release includes chlorides
Calgon CS Inhibitor	10,000	0	
Chlorine as Cl <sub>2</sub>	500,000	500,000	Release includes chlorides
Lime	10,000	10,000	
Coagulant Aid	5,000	5,000	
Unidentified Chemical Wastes	4,200	4,200	Laboratory drains including water
Soda Ash	30,000	30,000	
Sodium Hydroxide	333,000	0	Demineralizer Regeneration
Sodium Hypochlorite	6,000	6,000	Sewage treatment. Release includes chlorides
Sodium Phosphate	2,000	2,000	Auxiliary Boilers
Sodium Sulphate	0	583,000	Product of Demineralizer Regeneration
Sodium Sulfite	1,000	100	Auxiliary Boilers
Sulfuric Acid	400,000	0	Demineralizer Regeneration

PBAPS

PROTECTION LIMITS (Continued)

MONITORING REQUIREMENTS (Continued)

2.3 Noise

3.3 Noise

Objective

Objective

The purpose of this specification is to limit noise from plant operation beyond the site boundary.

The purpose of this monitoring requirement is to assure that the noise from plant operation is maintained in accordance with the environmental technical specification.

Specification

Specification

a. During one unit or two unit operation, the noise levels at the southeast land site boundary 1800' from the nearest mechanical draft cooling tower shall not exceed 45dB(A), with three cooling towers in service.

Noise measurements will be made four times a year for the first year of one unit commercial operation and twice a year for the first year of two unit commercial operation. Noise measurements will be made utilizing sound level meters which meet the requirements of ANSI Standard S1.4-1971, "Sound Level Meters". These measurements will be made at permanently marked locations on the land site boundary at the specified distances from the mechanical draft cooling towers and the transformers in the north substation.

b. During one unit or two unit operation, the noise at the northwest land site boundary 500' from the transformers in the north substation shall not exceed 60 dB(A).

Bases

Bases

The effect of the major noise producing equipment beyond the site boundary was evaluated using the Department of Housing and Urban Development Criterion Guideline for Non-Aircraft Noise as defined in Paragraph 4.b.1, Circular 1390.2 CHG 1, dated 8/71. The results of this evaluation, as described in Section 4.2 of the Environmental Report, Operating License Stage, Peach Bottom Atomic Power Station, Units 2 and 3, Philadelphia Electric Company, June, 1972, are the basis for this protection limit.

Noise measurement made in accordance with the specification will permit monitoring the sound level of the major noise producing equipment.





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 3

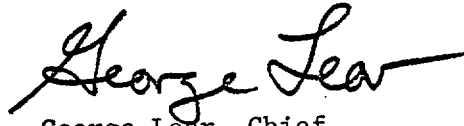
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 20  
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 23, 1975, 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; and
  - 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.
  - 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.

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

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in cursive script that reads "George Lear". The signature is written in black ink and is positioned above the typed name and title.

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

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: July 27, 1976

ATTACHMENT TO LICENSE AMENDMENT NO. 20

TO THE TECHNICAL SPECIFICATIONS

FACILITY OPERATING LICENSE NO. DPR-56

DOCKET NO. 50-278

Replace page 5c, 9 and 10 with the attached revised pages. No change has been made on page 10.

PROTECTION LIMITS (Continued)

MONITORING REQUIREMENTS (Continued)

2.2 Chemical

3.2 Chemical

2.2.1 Biocides

3.2.1 Biocides

Objective

Objective

To minimize adverse effects on aquatic biota which may result from the chlorine used to control fouling organisms within the station.

To assure that chlorine discharges are maintained in accordance with the environmental technical specification.

Specification

Specification

The concentration of total residual chlorine at the point of discharge to the Conowingo Pond shall not be greater than 0.1 mg/liter. The period of chlorine addition to a condenser stream shall not exceed one hour per day. The total period of chlorine addition to the condenser circulating water systems and to the cooling tower systems shall not exceed two hours per day.

Free residual chlorine shall be

being chlorinated. The chlorine analyzer shall be calibrated monthly. In the event the continuous chlorine analyzer is inoperable, manual measurements of the free residual chlorine level in the condenser discharge water shall be made at the start, midpoint, and end of chlorination.

PEAPS

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Calcium Hypochlorite	5,000	5,000	Release includes chlorides
Calgon CS Inhibitor	10,000	0	
Chlorine as Cl <sub>2</sub>	500,000	500,000	Release includes chlorides
Lime	10,000	10,000	
Coagulant Aid	5,000	5,000	
Unidentified Chemical Wastes	4,200	4,200	Laboratory drains including water
Soda Ash	30,000	30,000	
Sodium Hydroxide	333,000	0	Demineralizer Regeneration
Sodium Hypochlorite	6,000	6,000	Sewage treatment. Release includes chlorides
Sodium Phosphate	2,000	2,000	Auxiliary Boilers
Sodium Sulphate	0	583,000	Product of Demineralizer Regeneration
Sodium Sulfite	1,000	100	Auxiliary Boilers
Sulfuric Acid	400,000	0	Demineralizer Regeneration

PBAPS

PROTECTION LIMITS (Continued)

MONITORING REQUIREMENTS (Continued)

2.3 Noise

3.3 Noise

Objective

Objective

The purpose of this specification is to limit noise from plant operation beyond the site boundary.

The purpose of this monitoring requirement is to assure that the noise from plant operation is maintained in accordance with the environmental technical specification.

Specification

Specification

a. During one unit or two unit operation, the noise levels at the southeast land site boundary 1800' from the nearest mechanical draft cooling tower shall not exceed 45dB(A), with three cooling towers in service.

Noise measurements will be made four times a year for the first year of one unit commercial operation and twice a year for the first year of two unit commercial operation. Noise measurements will be made utilizing sound level meters which meet the requirements of ANSI Standard S1.4-1971, "Sound Level Meters". These measurements will be made at permanently marked locations on the land site boundary at the specified distances from the mechanical draft cooling towers and the transformers in the north substation.

b. During one unit or two unit operation, the noise at the northwest land site boundary 500' from the transformers in the north substation shall not exceed 60 dB(A).

Bases

Bases

The effect of the major noise producing equipment beyond the site boundary was evaluated using the Department of Housing and Urban Development Criterion Guideline for Non-Aircraft Noise as defined in Paragraph 4.b.1, Circular 1390.2 CHG 1, dated 8/71. The results of this evaluation, as described in Section 4.2 of the Environmental Report, Operating License Stage, Peach Bottom Atomic Power Station, Units 2 and 3, Philadelphia Electric Company, June, 1972, are the basis for this protection limit.

Noise measurement made in accordance with the specification will permit monitoring the sound level of the major noise producing equipment.

ENVIRONMENTAL IMPACT APPRAISAL BY THE DIVISION OF OPERATING REACTORS  
SUPPORTING AMENDMENTS NOS. 20 AND 20 TO DPR-44 AND DPR-56  
DOCKET NOS. 50-277 AND 50-278  
PHILADELPHIA ELECTRIC COMPANY  
PEACH BOTTOM ATOMIC POWER STATION, UNITS 2 AND 3

ENVIRONMENTAL IMPACT APPRAISAL

1. Description of Proposed Action

- A. By letter dated July 23, 1975, the Philadelphia Electric Company (PEC) submitted proposed changes to the Environmental Technical Specifications (Appendix B) to Facility Operating Licenses Nos. DPR-44 and DPR-56. PEC requested that the first sentence in Specification 3.2.1 on page 5b be changed to read: "Free residual chlorine shall be measured continually at the discharge of one of the three condenser sections being chlorinated." This change would result in measurement of free residual chlorine at the discharge of one of three condenser sections being chlorinated rather than at the discharges of each of the three sections.
- B. Also by means of the July 23, 1975 letter, PEC requested that Table 2.2.4-1, "Estimated Chemical Usage" be changed to allow increased use of eight chemicals during plant operation. The eight chemicals involved are alum, boric acid, borax, calcium hypochlorite, sodium hydroxide, sodium phosphate, sodium sulfite, and sulfuric acid. The increased quantities of chemicals would result in increased environmental releases of three of the chemicals: calcium hypochlorite, sodium phosphate, and sodium sulphate. The original estimated values for Table 2.2.4-1 were generally lower than the actual amounts of chemicals required during operation of Units 2 and 3. It is now possible to more closely estimate the quantities of chemicals needed as based on actual operating experience.

2. Environmental Impacts of the Proposed Actions

- A. No environmental impact would result from measuring free residual chlorine at the discharge of one, instead of three, condenser sections. The chlorination system at Peach Bottom Units 2 and 3 is controlled by an automatic timer which chlorinates the intake bay to the A, B, and C circulating water pumps. The chlorination rate is fixed and uniform to each pump and condenser section; therefore, the concentration of free residual chlorine at the discharge of each condenser section is the same. The measurement of chlorine at the discharge of the three condenser sections has resulted in redundant data collection.

- B. The increase in chemical usage is expected to result in increased levels of releases of calcium hypochlorite, sodium phosphate, and sodium sulphate into Conowingo Pond on the Susquehanna River. The total release of 5,000 pounds per year of calcium hypochlorite would result in a concentration in the River of approximately one part per billion (ppb). Calcium hypochlorite is used in the plant potable water system, thus, most of this chemical will be destroyed by passage through the Peach Bottom sewage treatment plant. The total yearly releases of sodium phosphate (2,000 pounds), and sodium sulphate (583,000 pounds) will result in concentrations of approximately 1 ppb and 117 ppb, respectively, in Conowingo Pond. These concentrations are orders of magnitude below normal background levels in Conowingo Pond and will result in no adverse environmental impacts.

3. Conclusion and Basis for Negative Declaration

On the basis of the foregoing analyses, it is concluded that there will be no environmental impact attributable to the proposed action other than has already been predicted and described in the Commission's Final Environmental Statement for the Peach Bottom Atomic Power Station Units 2 and 3, dated April 1973. It is further concluded that no environmental impact statement for the proposed action need be prepared and that a negative declaration to this effect is appropriate.

Dated: July 27, 1976



UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKETS NOS. 50-277 AND 50-278

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

NOTICE OF ISSUANCE OF AMENDMENTS TO FACILITY  
OPERATING LICENSES

AND

NEGATIVE DECLARATION

Notice is hereby given that the U. S. Nuclear Regulatory Commission (the Commission) has issued Amendments Nos. 20 and 20 to Facility Operating Licenses Nos. DPR-44 and DPR-56, respectively, 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 2 and 3, located in Peach Bottom, York County, Pennsylvania. The amendments are effective as of their date of issuance.

The amendments will revise the provisions in the Environmental Technical Specifications relating to the monitoring of free residual chlorine and to the quantities of eight chemicals used in plant operation.

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 to 10 CFR Chapter I, which are set forth in the license amendments. Prior public notice of these amendments are not required since these amendments do not involve a significant hazards consideration.

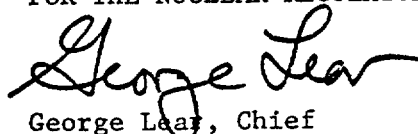
The Commission has prepared an environmental impact appraisal for the revised Technical Specifications and has concluded that an environmental impact statement for this particular action is not warranted because there will be no environmental impact attributable to the proposed action other than that which has already been predicted and described in the Commission's Final Environmental Statement for the Peach Bottom Atomic Power Station Units Nos. 2 and 3 published in April 1973, and that a negative declaration to this effect is appropriate.

For further details with respect to this action, see (1) the application for amendments dated July 23, 1975, (2) Amendments Nos. 20 to Licenses Nos. DPR-44 and DPR-56, and (3) the Commission's Environmental Impact Appraisal. 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 27th day of July, 1976.

FOR THE NUCLEAR REGULATORY COMMISSION



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