

FEB 1 1965

Docket No. 50-171  
DRL:ERF

Mr. John T. Conway  
Executive Director  
Joint Committee on Atomic Energy  
Congress of the United States

Dear Mr. Conway:

Attached for your information is a copy of the Notice of Proposed Issuance of Facility License to the Philadelphia Electric Company which has been submitted to the Office of the Federal Register for filing and publication. The proposed provisional operating license would authorize operation of the Peach Bottom Atomic Power Station, located in York County, Pennsylvania, at power levels up to one (1) megawatt thermal.

Copies of the Hazards Analysis by the Division of Reactor Licensing, and the Report of the Advisory Committee on Reactor Safeguards, dated November 18, 1964 (which is attached to the Hazards Analysis) are also attached for your information.

We will inform you when further action is taken in this matter.

Sincerely yours,

bcc: Cong. Comm. (2)  
T. Fleming, OGC  
H. L. Price, REG  
H. K. Shapar, OGC  
E. G. Case, DRL  
Suppl. - DRL Reading  
Henderson - T&PRSB Reading

Harold L. Price  
Director of Regulation

*15/ Harold L. Price*

**Enclosures:**

1. Notice of Proposed Issuance of Facility License
2. Hazards Analysis and ACRS Report

*See Reports  
Return!*

OFFICE ▶	DRL <i>AX</i>	OGC <i>WAX</i>	DRL	DRL <i>RD</i>	REG	OCR
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UNITED STATES ATOMIC ENERGY COMMISSION

DOCKET NO. 50-171

PHILADELPHIA ELECTRIC COMPANY

NOTICE OF PROPOSED ISSUANCE OF FACILITY LICENSE

Pursuant to Section 189 of the Atomic Energy Act of 1954, as amended, Section 50.58 of 10 CFR 50 and Section 2.105 of 10 CFR 2, notice is hereby given that unless within thirty (30) days after publication of this notice in the Federal Register a request for a hearing is filed with the U. S. Atomic Energy Commission by the Philadelphia Electric Company or a petition for leave to intervene is filed by any person whose interest may be affected as provided by and in accordance with the Commission's Rules of Practice, 10 CFR 2, the Commission proposes to issue a provisional operating license to the Philadelphia Electric Company, substantially in the form set forth below, authorizing operation of the Peach Bottom Atomic Power Station Reactor located in York County, Pennsylvania, at power levels up to one (1) megawatt thermal.

The Commission has found that:

- A. The application, as amended, complies with the requirements of the Atomic Energy Act of 1954, as amended, and the Commission's regulations as set forth in Title 10, Chapter 1, CFR;
- B. There are involved features, characteristics and components as to which it appears desirable to obtain actual operating experience before the issuance of an operating license for the full term requested in the application;
- C. There is reasonable assurance (i) that the activities authorized by this provisional operating license can be conducted without

endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the rules and regulations of the Commission;

- D. Philadelphia Electric is technically and financially qualified to engage in the activities authorized by the provisional operating license in accordance with the rules and regulations of the Commission, and to assume responsibility for payment of Commission Charges for the special nuclear material allocated;
- E. The issuance of the provisional operating license is not inimical to the common defense and security or the the health and safety of the public.

Prior to the issuance of the license, the Philadelphia Electric Company will be required to provide proof of financial protection which satisfies the requirements of 10 CFR 140 and to execute an indemnity agreement as required by Section 170 of the Atomic Energy Act of 1954, as amended, and 10 CFR 140. In addition, prior to issuance of the license, the facility will be inspected by representatives of the Commission to determine whether it has been constructed in accordance with the provisions of Construction Permit No. DPPR-12, and that preoperational tests of those systems important to safe operation of the plant have been completed.

The application filed by the Philadelphia Electric Company dated July 25, 1960 and amendments thereto, (2) the report of the Advisory Committee on Reactor Safeguards (ACRS) dated November 18, 1964, (3) the Hazards Analysis by the Division of Reactor Licensing, and (4) the

Proposed Technical Specifications designated as Appendix "A" to the Provisional Operating License are available for public inspection at the Commission's Public Document Room, 1717 H Street, N. W. Washington, D. C. Copies of items (2) and (3) are available upon request addressed to the Atomic Energy Commission, Washington, D. C. 20545, Attention: Director, Division of Reactor Licensing.

FOR THE ATOMIC ENERGY COMMISSION

Director  
Division of Reactor Licensing

Dated at Bethesda, Maryland  
this            day of January, 1965

UNITED STATES ATOMIC ENERGY COMMISSION

PHILADELPHIA ELECTRIC COMPANY

DOCKET NO. 50-171

PROPOSED PROVISIONAL OPERATING LICENSE

1. This provisional operating license applies to the high-temperature, gas-cooled demonstration power reactor owned by the Philadelphia Electric Company (hereinafter referred to as "Philadelphia Electric") and designated by Philadelphia Electric as the "Peach Bottom Atomic Power Station". The reactor is located at Philadelphia Electric's site near Peach Bottom, York County, Pennsylvania, and is described in Philadelphia Electric's application for operating license dated July 25, 1960, and amendments thereto (hereinafter collectively referred to as "the application").
2. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses Philadelphia Electric:
  - A. Pursuant to Section 104(b) of the Act and 10 CFR 50, to possess, use and operate the reactor as a utilization facility.
  - B. Pursuant to the Act and 10 CFR 70, to receive, possess and use in operation of the reactor at any one time:
    - (1) 250 kilograms of contained uranium-235
    - (2) 10 grams of uranium-233
  - C. Pursuant to the Act and 10 CFR 40, to receive, possess and use in operation of the reactor at any one time 1600 kilograms of thorium-232.
  - D. Pursuant to the Act and 10 CFR 30, to receive, possess and use in operation of the reactor at any one time 480 curies of polonium as polonium-beryllium neutron sources.
  - E. Pursuant to the Act and 10 CFR 30, to possess but not to separate such by-product material as may be produced by operation of the reactor.

3. This license shall be deemed to contain and be subject to the conditions specified in Section 30.32 of Part 30, Section 50.54 and 50.59 of Part 50, and Section 70.32 of Part 70, Title 10, Chapter 1, CFR, and to be subject to all applicable provisions of the Act, and to the rules, regulations and orders of the Commission, now or hereafter in effect, and to the additional conditions specified below:

A. Philadelphia Electric shall not operate the reactor at power levels in excess of one (1) megawatt thermal.

B. Technical Specifications

The Technical Specifications contained in Appendix "A" hereto (hereinafter referred to as the "Technical Specifications") are hereby incorporated in this license. Except as otherwise permitted by the Act and the rules, regulations and orders of the Commission, Philadelphia Electric shall operate the reactor in accordance with the Technical Specifications.

C. Records

In addition to those otherwise required under this license and applicable regulations, Philadelphia Electric shall keep the following records:

- (1) Daily log of operations
- (2) Records of radioactivity released to the environment beyond the effective control of Philadelphia Electric as measured at or prior to the point of such release or discharge.
- (3) Records of radiation surveys and records of personnel exposures.
- (4) Records of containment isolation and reactor safety system actions, including reasons therefore.
- (5) Records of surveillance programs performed pursuant to the Technical Specifications.

- (6) Records of maintenance operations and reasons therefore on all containment isolation system, reactor safety system and reactor auxiliary system components.

D. Reports

In addition to reports otherwise required under this license and applicable regulations, Philadelphia Electric shall submit the following reports in writing to the Commission:

- (1) An immediate report of any indication or occurrence of a possible unsafe condition relating to the operation of the reactor, including, without implied limitation:
  - (a) Any substantial variance disclosed by operation of the reactor from the performance specifications set forth in the Technical Specifications;
  - (b) Any accidental release of radioactivity, whether or not resulting in property damage, personal injury or exposure above permissible limits.
- (2) Within thirty (30) days after the completion of one month of operation of the reactor (calculated from the date of achievement of initial criticality) and at the end of each month period thereafter, a report which summarizes the following:
  - (a) Items (2) through (6) of paragraph 3.C.
  - (b) The results of any significant tests conducted on the plant or plant equipment.
  - (c) Operating experience of the plant.
  - (d) Significant changes made in operating procedures and in plant organization.

(e) Contemplated activities relative to safety for the next report period.

4. Pursuant to Section 50.60 of 10 CFR 50, the Commission has allocated to Philadelphia Electric for use in the operation of the reactor 1880 kilograms of uranium-235 contained in uranium at the isotopic ratios specified in the application. Estimated schedules of special nuclear material transfers to Philadelphia Electric and returns to the Commission are contained in Appendix "B" attached hereto, which amends the allocation contained in Construction Permit No. CPPR-12. Transfers by the Commission to Philadelphia Electric in accordance with column (2) in Appendix "B" will be conditioned upon Philadelphia Electric's return to the Commission of material substantially in accordance with column (3) of Appendix "B".
5. This license shall be effective as of the date of issuance and shall expire eighteen (18) months from said date, unless extended for good cause shown, or upon the earlier issuance of a superceding operating license.

FOR THE ATOMIC ENERGY COMMISSION

Director  
Division of Reactor Licensing

Attachments:

1. Appendix "A"
2. Appendix "B"

Date of Issuance

APPENDIX "B"

ALLOCATION OF SPECIAL NUCLEAR MATERIAL  
TO PHILADELPHIA ELECTRIC COMPANY  
(PEACH BOTTOM STATION)

(1) FY	(2) AEC to PE	(3) KG U-235 PE to AEC		(4) Year Net	(5) Cummula- tive
		Cold	Irrad.*		
Through					
1965	327.2	-0-	-0-	327.2	327.2
1966	-0-	90.2	-0-	(90.2)	237.0
1967	261.7	-0-	-0-	261.7	498.7
1968	-0-	38.4	-0-	(38.4)	460.3
1969	-0-	-0-	97.8	(97.8)	362.5
1970	261.7	-0-	-0-	261.7	624.2
1971	-0-	38.4	-0-	(38.4)	585.8
1972	-0-	-0-	97.8	(97.8)	488.0
1973	261.7	-0-	-0-	261.7	749.7
1974	-0-	38.4	-0-	(38.4)	711.3
1975	-0-	-0-	97.8	(97.8)	613.5
1976	261.7	-0-	-0-	261.7	875.2
1977	-0-	38.4	-0-	(38.4)	836.8
1978	-0-	-0-	97.8	(97.8)	739.0
1979	261.7	-0-	-0-	261.7	1,000.7
1980	-0-	38.4	-0-	(38.4)	962.3
1981	-0-	-0-	97.8	(97.8)	864.5
1982	261.7	-0-	-0-	261.7	1,126.2
1983	-0-	38.4	-0-	(38.4)	1,087.8
1984	-0-	-0-	97.8	(97.8)	990.0
1985	261.7	-0-	-0-	261.7	1,251.7
1986	-0-	38.4	-0-	(38.4)	1,213.3
1987	-0-	-0-	97.8	(97.8)	1,115.5
1988	261.7	-0-	-0-	261.7	1,377.2
1989	-0-	38.4	-0-	(38.4)	1,338.8
1990	-0-	-0-	97.8	(97.8)	1,241.0
1991	261.7	-0-	-0-	261.7	1,502.7
1992	-0-	38.4	-0-	(38.4)	1,464.3
1993	-0-	-0-	97.8	(97.8)	1,366.5
1994	261.7	-0-	-0-	261.7	1,628.2
1995	-0-	38.4	-0-	(38.4)	1,589.8
1996	-0-	-0-	97.8	(97.8)	1,492.0
1997	261.7	-0-	-0-	261.7	1,753.7
1998	-0-	38.4	-0-	(38.4)	1,715.3
1999	-0-	-0-	97.8	(97.8)	1,617.5
2000	261.7	-0-	-0-	261.7	1,879.2
2001	-0-	38.4	-0-	(38.4)	1,840.8
2002	-0-	-0-	97.8	(97.8)	1,743.0
2003	-0-	-0-	-0-	-0-	1,743.0
2004	-0-	-0-	-0-	-0-	1,743.0
2005	-0-	13.0	97.8	(110.8)	1,632.2
	<u>3,467.6</u>	<u>564.0</u>	<u>1,271.4</u>	<u>1,632.2</u>	

\*Net quantity after reprocessing