

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.

A-405

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 JAN 29 1965