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. 107
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 May 30, 1984, as supplemented by letters dated August 24, 1984, and September 27, 1984, 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 and 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:

8412270333 841203
PDR ADOCK 05000278
P PDR

Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 107, 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

John F. Stolz, Chief
Operating Reactors Branch #4
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: December 3, 1984

ATTACHMENT TO LICENSE AMENDMENT NO. 107

FACILITY OPERATING LICENSE NO. DPR-56

DOCKET NO. 50-278

Replace the following pages of the Appendix "A" Technical Specifications with the enclosed pages. The revised pages are identified by Amendment number and contain a vertical line indicating the area of change.

| Remove | Insert |
|---|---|
| iv | iv |
| 10 | 10 |
| 133d | 133d |
| 133e | 133e |
| 142a | 142a |
| 149 | 149 |
| -- | 149a |
| -- | 149b |
| -- | 149c |
| 160 | 160 |
| -- | 164d |

## LIST OF FIGURES

2.1.A (Cont'd)

In the event of the operation with a maximum fraction of limiting power density (MFLPD) greater than the fraction of rated power (FRP), the setting shall be modified as follows.

$$S \leq (0.66\,W + 54\% - 0.66\,\Delta W)\left(\frac{FRP}{MFLPD}\right)$$

where,

FRP = fraction of rated thermal power (3293 MWt)

MFLPD = maximum fraction of limiting power density where the limiting power density is 13.4 KW/ft for all 8x8 fuel.

The ratio of FRP to MFLPD shall be set equal to 1.0 unless the actual operating value is less than the design value of 1.0, in which case the actual operating value will be used.

2. APRM--When the reactor mode switch is in the STARTUP position, the APRM scram shall be set at less than or equal to 15 percent of rated power.

3. IRM--The IRM scram shall be set at less than or equal to 120/125 of full scale.

Table 3.5.K.2

OPERATING LIMIT MCPR VALUES
FOR VARIOUS CORE EXPOSURES*

| Fuel Type | MCPR Operating Limit For Incremental Cycle Core Average Exposure** | |
|---|---|---|
| | BOC to 2000 MWD/t Before EOC | 2000 MWD/t before EOC To EOC |
| PTA & P8X8R | 1.26 | 1.28 |
| LTA | 1.26 | 1.28 |

* If requirement 4.5.K.2.a is met.

** These values shall be increased by 0.01 for single loop operation.

Table 3.5.K.3

OPERATING LIMIT MCPR VALUES
FOR VARIOUS CORE EXPOSURES*

| Fuel Type | MCPR Operating Limit For Incremental Cycle Core Average Exposure** | |
|---|---|---|
| | BOC to 2000 MWD/t Before EOC | 2000 MWD/t before EOC To EOC |
| PTA & P8X8R | 1.33 | 1.40 |
| LTA | 1.33 | 1.40 |

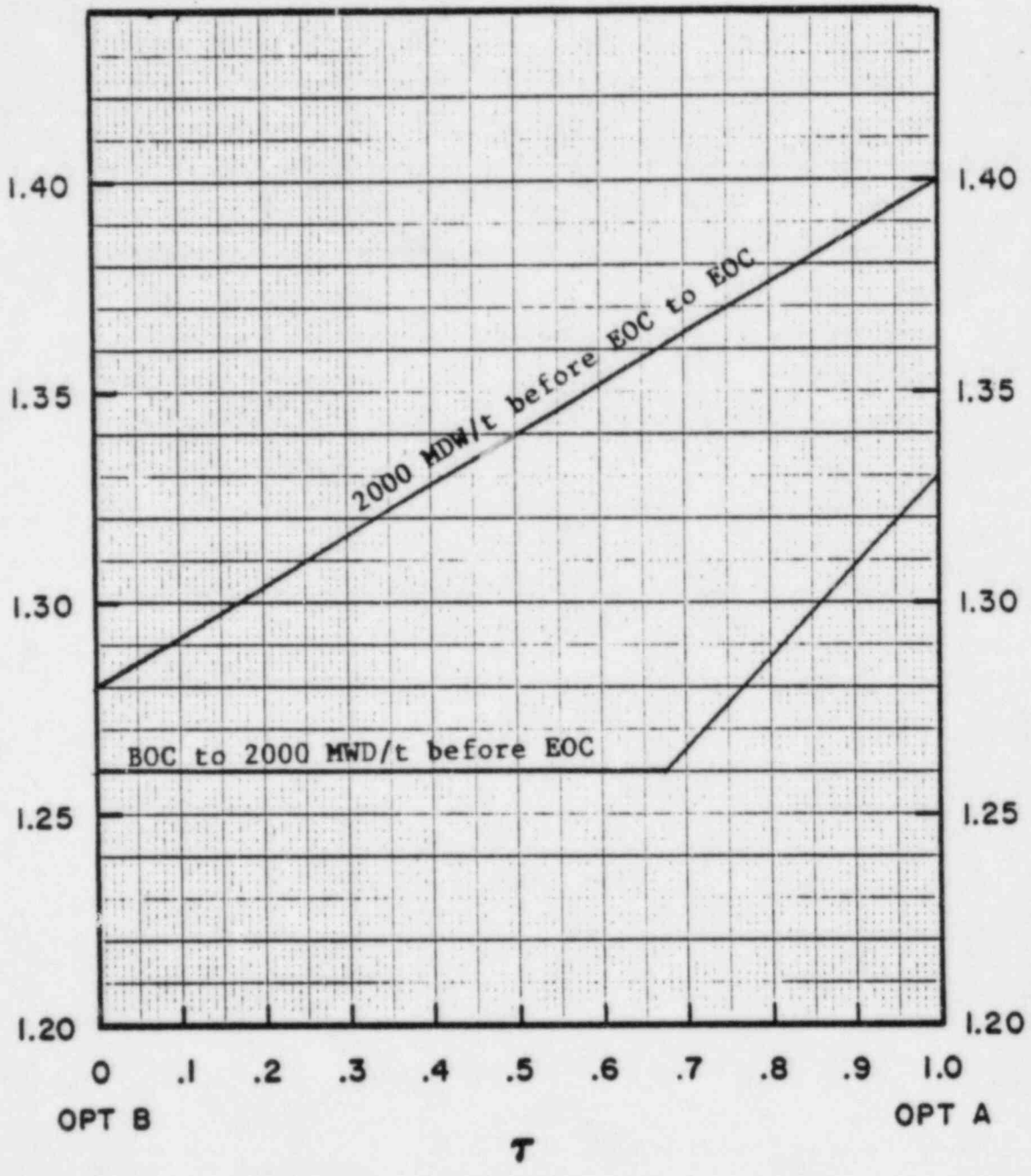
* If surveillance requirement of section 4.5.K.2 is not performed.

** These values shall be increased by 0.01 for single loop operation.

PEACH BOTTOM UNIT 3

FIGURE 3.5.K.2 MCPR OPERATING LIMIT vs $\tau$

FUEL TYPE PTA & P8X8R




Amendment No. 41, 79, 83, 92, 107

| LIMITING CONDITION FOR OPERATION | SURVEILLANCE REQUIREMENTS |
|---|---|
| 3.6.F RECIRCULATION PUMPS | 4.6.F RECIRCULATION PUMPS |
| 1. Following one-pump operation, the discharge valve of the low speed pump may not be opened unless the speed of the faster pump is less than 50% of its rated speed. | 1. Establish baseline APRM and LPRM neutron flux noise values for each operating mode at or below the thermal power specified in Figure 3.6.5 (Line A) for the regions for which monitoring is required (Specification 3.6.F.6, Regions 1,2 or 4) within 2 hours of entering the region for which monitoring is required unless baselining has previously been performed since the last refueling outage. |
| 2. The requirements applicable to single loop operation as identified in sections 1.1.A, 2.1.A, 2.1.B, 3.5.I & 3.5.K shall be in effect within 24 hours following the removal of one recirculation loop from service, or the unit placed in the Hot Shutdown conditions. | 2. Establish a baseline core plate differential pressure noise value at or below the thermal power specified in Figure 3.6.5 (Line A) and at a total core flow less than or equal to 45% of rated core flow for the regions for which monitoring is required (Specification 3.6.F.7, Regions 2 or 3) within 2 hours of entering the region for which monitoring is required unless baselining has previously been performed since the last refueling outage. |
| 3. Whenever the reactor is in the startup or run modes, two reactor coolant system recirculation loops shall be in operation, except as specified in 3.6.F.4, 3.6.F.5, 3.6.F.6, and 3.6.F.7 below, with:<br>a. Total core flow greater than or equal to 45% of rated core flow, or<br>b. Thermal Power less than or equal to the limit specified in Figure 3.6.5 (Line A). | |
| 4. With only one reactor coolant system recirculation loop operating, immediately initiate action to reduce thermal power and be below the limit specified in Figure 3.6.5 (Line A) or increase core flow to greater than or equal to 45% of rated core flow. | |

| LIMITING CONDITION FOR OPERATION | SURVEILLANCE REQUIREMENTS |
|---|---|
| 3.6.F RECIRCULATION PUMPS | 4.6.F RECIRCULATION PUMPS |

5. With no reactor coolant system recirculation loops in operation, immediately initiate action to reduce Thermal Power to less than or equal to the limit specified in Figure 3.6.5 (Line A) and if a recirculation loop cannot be returned to service initiate measures to place the unit in Hot Shutdown within the next 12 hours.

6. With two reactor coolant system recirculation loops in operation and total core flow less than 45% of rated core flow and Thermal Power greater than the limit specified in Figure 3.6.5 (Line A) (Region 1), or with only one reactor coolant system recirculation loop operating and the Thermal Power greater than the limit specified in Figure 3.6.5 (Line A) (Regions 1 or 2) or total core flow less than 45% of rated core flow with Thermal Power greater than 35% of Rated Thermal Power (Regions 1 or 4):

   a. Determine the APRM and LPRM noise levels:

      1) Within 1 hour after entering the region for which monitoring is required and at least once per 24 hours, and

      2) Within 1 hour after the completion of a Thermal Power increase of at least 5% of Rated Thermal Power.

   b. With the APRM or LPRM neutron flux noise levels greater than 5% and three times their established baseline noise levels, immediately initiate corrective action to restore the noise levels to within

| LIMITING CONDITION FOR OPERATION | SURVEILLANCE REQUIREMENTS |
|---|---|
| 3.6.F RECIRCULATION PUMPS | 4.6.F RECIRCULATION PUMPS |
| the required limits within 2 hours, or reduce thermal power at a rate which would bring the reactor to the hot shutdown condition within the next 12 hours, unless the noise levels are restored within the required limits during this period. Detector levels A and C of one LPRM string per core octant plus detectors A and C of one LPRM string in the center of the core should be monitored. | |
| 7. With one reactor coolant system recirculation loop in operation and total core flow greater than 45% of rated core flow (Regions 2 or 3): | |
| a. Determine the core plate differential pressure noise level: | |
| 1) At least once per 24 hours, and | |
| 2) Within one hour after completion of a core flow increase of at least 5% of rated core flow. | |
| b. With the core plate differential pressure noise level greater than 1 psi and 1.5 times the established baseline noise level, immediately initiate corrective action to restore the noise level to within the required limits within 2 hours or reduce core flow to less than 45% of rated core flow. | |

| LIMITING CONDITION FOR OPERATION | SURVEILLANCE REQUIREMENTS |
| --- | --- |
| 3.6.G STRUCTURAL INTEGRITY | 4.6.G STRUCTURAL INTEGRITY |
| The structural integrity of of the primary system boundary shall be maintained at the level required by the original acceptance standards throughout the life of the station. The reactor shall be maintained in a Cold Shutdown condition until each indication of a defect has been investigated and evaluated. | The non-destructive inspections listed in Table 4.6.1 shall be performed as specified. The results obtained from compliance with the specification will be evaluated after 5 years and the conclusions of this evaluation will be reviewed with the NRC. |

3.6.F & 4.6.F BASES

Requiring the discharge valve of the lower speed loop to remain closed until the speed of faster pump is below 50% of its rated speed provides assurance when going from one to two pump operation that excessive vibration of the jet pump risers will not occur.

Operation with one recirculation loop in service is permitted. In such instances, the designated adjustments for APRM rod block and scram setpoints, RBM setpoint, MCPR fuel cladding integrity safety limit, MCPR operating limits, and MAPLHGR limits are required.

Thermal power and core flow limitations are prescribed in accordance with General Electric Service Information Letter No. 380, rev. 1, "BWR Core Thermal Hydraulic Stability," dated 2/10/84.

Neutron flux noise limits are established to ensure early detection of limit cycle neutron flux oscillations. BWR cores typically operate with neutron flux noise caused by random boiling and flow noise. Typical neutron flux noise levels of 1 to 12% of rated power (peak-to-peak) have been reported for the range of low to high recirculation loop flow during both single and dual recirculation loop operation. Neutron flux noise levels significantly larger than these values are considered in the thermal/mechanical fuel design and are found to be of negligible consequence, and in compliance with stability licensing criteria. In addition, stability tests at operating BWR's have demonstrated that when stability related neutron flux limit cycle oscillations occur they result in peak-to-peak neutron flux limit cycles 5 to 10 times the typical values. Therefore, actions taken to reduce neutron flux noise levels exceeding three (3) times the typical value are sufficient to ensure early detection of limit cycle neutron flux oscillations.

Data to establish baseline APRM and LPRM neutron flux noise values is obtained at or below the power specified in Figure 3.6.5 for use in monitoring noise levels during operation in the region for which monitoring is required.

FIGURE 3.6.5

THERMAL POWER AND CORE FLOW LIMITS OF

SPECIFICATIONS 3.6.F.3, 3.6.F.4, 3.6.F.5, 3.6.F.6 and 3.6.F.7