DCR 016

August 11, 1986

Dockets Nos. 50-277
and 50-278

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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:

The Commission has issued the enclosed Amendments Nos. 120 and 124 to Facility Operating Licenses Nos. DPR-44 and DPR-56 for the Peach Bottom Atomic Power Station, Units Nos. 2 and 3. These amendments consist of changes to the Technical Specifications (TSs) in response to your application dated January 14, 1986.

The specific changes to the TSs covered by these amendments involve changes to clarify the required spent fuel pool water level.

A copy of our Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's Bi-Weekly Federal Register Notice.

Sincerely,

/s/

Gerald E. Gears, Project Manager
BWR Project Directorate #2
Division of BWR Licensing

Enclosures:
1. Amendment No. 120 to DPR-44
2. Amendment No. 124 to DPR-56
3. Safety Evaluation

cc w/enclosures:
See next page

BWRPD#2	BWRPD#2	BWRPD#2	OGC
SNorris	GGears;	DMiller	
7/24/86	7/25/86	8/11/86	8/1/86

cc:
Mr. Eugene J. Bradley
Assistant General Counsel
Philadelphia Electric Company
2301 Market Street
Philadelphia, Pennsylvania 19101

Troy B. Conner, Jr., Esq.
1747 Pennsylvania Avenue, N.W.
Washington, D.C. 20006

Thomas A. Deming, Esq.
Assistant Attorney General
Department of Natural Resources
Annapolis, Maryland 21401

Mr. R. Fleischmann, II, Manager
Peach Bottom Atomic Power Station
RD #1
Delta, Pennsylvania 17314

Mr. G. M. Leitch, Superintendent
Nuclear Generation Division
S7-1
Philadelphia Electric Company
2301 Market Street
Philadelphia, Pennsylvania 19101

Mr. Anthony J. Pietrofitta, General Manager
Power Production Engineering
Atlantic Electric
P. O. Box 1500
1199 Black Horse Pike
Pleasantville, New Jersey 08232

Resident Inspector
U.S. Nuclear Regulatory Commission
Peach Bottom Atomic Power Station
P.O. Box 399
Delta, Pennsylvania 17314

Regional Administrator, Region I
U.S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, Pennsylvania 19406

Mr. R. A. Heiss, Coordinator
Pennsylvania State Clearinghouse
Governor's Office of State Planning
and Development
P.O. Box 1323
Harrisburg, Pennsylvania 17120

Mr. Thomas M. Gerusky, Director
Bureau of Radiation Protection
Pennsylvania Department of
Environmental Resources
P.O. Box 2063
Harrisburg, Pennsylvania 17120

Mr. Albert R. Steel, Chairman
Board of Supervisors
Peach Bottom Township
R. D. #1
Delta, Pennsylvania 17314

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. 120
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 January 14, 1986, 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-44 is hereby amended to read as follows:

Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 120, 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 the date of issuance and shall be implemented within 90 days.

FOR THE NUCLEAR REGULATORY COMMISSION

Daniel R. Muller, Director
BWR Project Directorate #2
Division of BWR Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: August 11, 1986

ATTACHMENT TO LICENSE AMENDMENT NO. 120

FACILITY OPERATING LICENSE NO. DPR-44

DOCKET NO. 50-277

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

Remove	Insert
228a	228a
231	231
232	232

LIMITING CONDITIONS FOR OPERATION	SURVEILLANCE REQUIREMENTS
3.10.C Spent Fuel Storage Pool Water Level	4.10.C Spent Fuel Storage Pool Water Level
1. At least 22 feet of water shall be maintained over the top of the irradiated fuel seated in the spent fuel storage pool racks.	Whenever irradiated fuel is stored in the spent fuel pool, the water level shall be recorded daily.
2. If specification 3.10.C.1 cannot be satisfied, suspend all movement of fuel assemblies and crane operations with loads in the spent fuel storage pool area after placing the fuel assemblies and crane load in a safe condition.	

D. Heavy Loads Over Spent Fuel

Loads in excess of 1000 lbs. (excluding the rigging and transport vehicle) shall be prohibited from travel over fuel assemblies in the spent fuel storage pool.

3.10 BASES (Cont'd)

The requirements for SRM Operability during these core alterations assure sufficient core monitoring.

B. Core Monitoring

The SRM's are provided to monitor the core during periods of station shutdown and to guide the operator during refueling operations and station startup. Requiring two operable SRM's in or adjacent to any core quadrant where fuel or control rods are being moved assures adequate monitoring of that quadrant during such alterations. The requirement of 3 counts per second provides assurance that neutron flux is being monitored and insures that startup is conducted only if the source range flux level is above the minimum assumed in the control rod drop accident.

During unloading of fuel, it is permissible to allow the SRM count rate to decrease below 3 cps. Since all fuel moves during core unloading will reduce reactivity, the lower number of counts will not present a hazard. Requiring the SRM's to be functionally tested prior to fuel removal assures that the SRM's will be operable at the start of fuel removal. The daily response check of the SRM's ensures their continued operability until the count rate deminishes due to fuel removal. Control rods in cells from which all fuel has been removed and which are outside the periphery of the then existing fuel matrix may be armed electrically and moved for maintenance purposes during fuel removal, provided all rods that control fuel are fully inserted and electrically disarmed.

During core loading, the loading of adjacent assemblies around the four SRM's before attaining the 3 cps is permissible because these assemblies were in a subcritical configuration when they were removed and therefore will remain subcritical when the same assemblies are placed back into their previous positions. Since specification 3.10.A.2 requires that all control rods be fully inserted prior to loading fuel, inadvertent criticality is precluded during core loading.

C. Spent Fuel Pool Water Level

The intent of the Technical Specification is to provide, adequate water coverage for cooling and shielding at all times. With the water at elevation 233' (its normal operating level at the top of the pool weir), approximately 23 ft. of water is maintained above fuel stored in the spent fuel storage racks. The physical arrangement of the spent fuel pool overflow to the skimmer surge tanks may be adjusted such that the minimum operating water level provides 22 ft. of water coverage over irradiated fuel in the storage racks. For this reason, the specification for minimum water coverage has been established at 22 ft. This level provides adequate

water coverage for both shielding and cooling at all times, including during fuel movement. The minimum water coverage measurement is the distance between the top of the fuel rod plenum and the spent fuel pool water level at its lowest adjusted level. With the water maintained at the minimum level, there is sufficient water depth to ensure that any iodine released from a hypothesized fuel handling accident would be reduced to acceptable levels before it reached the refueling floor. There are no piping connections to the spent fuel pool at any lower elevation.

4.10 BASES

A. Refueling Interlocks

Complete functional testing of all refueling interlocks before any refueling outage will provide positive indication that the interlocks operate in the situations for which they were designed. By loading each hoist with a weight equal to the fuel assembly, positioning the refueling platform and withdrawing control rods, the interlocks can be subjected to valid operational tests. Where redundancy is provided in the logic circuitry, tests can be performed to assure that each redundant logic element can independently perform its function.

B. Core Monitoring

Requiring the SRM's to be functionally tested prior to any core, alteration assures that the SRM's will be operable at the start of that alteration. The daily response check of the SRM's ensures their continued operability.

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. 124
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 January 14, 1986, 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:

Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 124 , 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 the date of issuance and shall be implemented within 90 days.

FOR THE NUCLEAR REGULATORY COMMISSION

Daniel R. Muller, Director
BWR Project Directorate #2
Division of BWR Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: August 11, 1986

ATTACHMENT TO LICENSE AMENDMENT NO. 124

FACILITY OPERATING LICENSE NO. DPR-56

DOCKET NO. 50-278

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

Remove	Insert
228a	228a
231	231
232	232

LIMITING CONDITIONS FOR OPERATION	SURVEILLANCE REQUIREMENTS
3.10.C Spent Fuel Storage Pool Water Level	4.10.C Spent Fuel Storage Pool Water Level
1. At least 22 feet of water shall be maintained over the top of the irradiated fuel seated in the spent fuel storage pool racks.	Whenever irradiated fuel is stored in the spent fuel pool, the water level shall be recorded daily.
2. If specification 3.10.C.1 cannot be satisfied, suspend all movement of fuel assemblies and crane operations with loads in the spent fuel storage pool area after placing the fuel assemblies and crane load in a safe condition.	
D. Heavy Loads Over Spent Fuel	
Loads in excess of 1000 lbs. (excluding the rigging and transport vehicle) shall be prohibited from travel over fuel assemblies in the spent fuel storage pool.	

3.10 BASES (Cont'd)

The requirements for SRM Operability during these core alterations assure sufficient core monitoring.

B. Core Monitoring

The SRM's are provided to monitor the core during periods of station shutdown and to guide the operator during refueling operations and station startup. Requiring two operable SRM's in or adjacent to any core quadrant where fuel or control rods are being moved assures adequate monitoring of that quadrant during such alterations. The requirement of 3 counts per second provides assurance that neutron flux is being monitored and insures that startup is conducted only if the source range flux level is above the minimum assumed in the control rod drop accident.

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During core loading, the loading of adjacent assemblies around the four SRM's before attaining the 3 cps is permissible because these assemblies were in a subcritical configuration when they were removed and therefore will remain subcritical when the same assemblies are placed back into their previous positions. Since specification 3.10.A.2 requires that all control rods be fully inserted prior to loading fuel, inadvertent criticality is precluded during core loading.

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4.10 BASES

A. Refueling Interlocks

Complete functional testing of all refueling interlocks before any refueling outage will provide positive indication that the interlocks operate in the situations for which they were designed. By loading each hoist with a weight equal to the fuel assembly, positioning the refueling platform and withdrawing control rods, the interlocks can be subjected to valid operational tests. Where redundancy is provided in the logic circuitry, tests can be performed to assure that each redundant logic element can independently perform its function.

B. Core Monitoring

Requiring the SRM's to be functionally tested prior to any core, alteration assures that the SRM's will be operable at the start of that alteration. The daily response check of the SRM's ensures their continued operability.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION SUPPORTING

AMENDMENTS NOS.120 AND 124TO FACILITY OPERATING LICENSES 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, UNITS NOS. 2 AND 3

DOCKETS NOS. 50-277 AND 50-278

1.0 INTRODUCTION

On January 14, 1986, the Philadelphia Electric Company applied for Amendment of Facility Operating Licenses DPR-44 and DPR-56. This Amendment request changes to the Peach Bottom Units 2 and 3 Technical Specifications to clarify the required spent fuel pool water level.

2.0 EVALUATION

The licensee's current Technical Specification 3.10.C states, "Whenever irradiated fuel is stored in the spent fuel pool, the pool water level shall be maintained at or above 8½ ft. above the top of the fuel." The intent of the existing specification is to establish the minimum water coverage above the fuel while it is being transported by the fuel handling equipment. However, this wording could be misinterpreted as meaning that the 8½ ft. represents the minimum water coverage above the fuel while it is stored in the storage racks at the bottom of the pool. This interpretation would conflict with the actual design requirements for the pool. The actual design calls for at least 22 ft. of water above the fuel positioned in the storage racks. In view of this, the licensee has proposed a modification to the current Technical Specifications in order to avoid any misinterpretation. Specifically, the proposed Technical Specification refers to a minimum of at least 22 ft. of water over the top of the fuel seated in the spent fuel storage pool racks. We find that this is in conformance with the Standard Technical Specifications for General Electric Boiling Water Reactors, NUREG-0123, Revision 3, which is 23 ft. of water above the fuel in the storage racks. However, the staff is concerned that the proposed Technical Specification does not include maintaining 8½ ft. of water over the top of the fuel while it is being transported. If this were violated, it potentially could lead to extremely high radiation doses to the workers in the spent fuel pool area.

The licensee has supplied additional information related to this matter in a letter dated December 26, 1985 during the course of our review for the Peach Bottom Units 2 and 3 Spent Fuel Pool Expansion. The letter states, "Interlocks are provided on the refueling platform to prevent the fuel from being raised to a point where there would be less than 8½ ft. of water over the top of active fuel."

We also note that the licensee's Technical Specifications require periodic surveillance of the spent fuel pool water level. Furthermore, the spent fuel pool area has radiation monitors which are set to alarm when area radiation levels begin to exceed permissible levels.

On the basis of our review of the licensee's submittal, the additional information regarding the interlocks on the refueling platform, the Technical Specification requirements to have periodic surveillance of the water level in the spent fuel pool, and the presence of radiation monitors in the spent fuel pool area, we conclude that the proposed Technical Specifications change is acceptable.

3.0 ENVIRONMENTAL CONSIDERATION

These amendments involve a change in the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. We have 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 these amendments involve no significant hazards consideration and there has been no public comment on such finding. Accordingly, these 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 or environmental assessment need be prepared in connection with the issuance of these amendments.

4.0 CONCLUSION

We have 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 these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Dated: August 11, 1986

Principal Contributor: A. Chu