

September 30, 1994

Docket No. 50-277

Mr. George A. Hunger, Jr.  
Director-Licensing, MC 52A-5  
PECO Energy Company  
Nuclear Group Headquarters  
Correspondence Control Desk  
P.O. Box No. 195  
Wayne, Pennsylvania 19087-0195

Dear Mr. Hunger:

SUBJECT: EXEMPTION FROM 10 CFR PART 50, APPENDIX J, SECTION III.D.1.(a),  
PEACH BOTTOM ATOMIC POWER STATION, UNIT 2 (TAC NO. M89470)

The Commission has issued the enclosed exemption for the Peach Bottom Atomic Power Station, Unit 2, in response to your letter dated May 13, 1994.

The exemption involves a one-time schedular exemption from the requirements of 10 CFR Part 50, Appendix J, Section III.D.1.(a) to perform Type A tests at approximately equal intervals and within the 10-year service period.

The exemption has been forwarded to the Office of the Federal Register for publication.

Sincerely,  
/S/

Joseph W. Shea, Project Manager  
Project Directorate I-2  
Division of Reactor Projects- I/II  
Office of Nuclear Reactor Regulation

Enclosure:  
Exemption

cc w/enclosure:  
See next page

DISTRIBUTION:

Docket File	PO'Brien(2)	RBarrett
NRC & Local PDRs	JShea	TLiu
PDI-2 Reading	OGC	
WRussell/FMiraglia	EJordan	
RZimmerman	GHill(2)	
RSpessard	ACRS (10)	
JLieberman	OPA	
SVarga/CMiller	OC/LFDCB	
MThadani	WDean, EDO	
Ewenzinger, RGN-I	CAnderson, RGN-I	

CP-1

OFFICE:	PDI-2/LA	PDI-2/PE	PDI-2/PM	PDI-2/D	OGC <sup>RMW</sup> <sub>no separate section</sub> R Weisman	DRPE/AD	DRPE/D
NAME:	PO'Brien	TLiu	JShea:rb	MThadani		CMIT/for	SVarga
DATE:	5/10/94	8/27/94	8/27/94	9/26/94	9/23/94	9/26/94	9/27/94

9410060164 940930  
PDR ADOCK 05000277  
P PDR

NRC FILE CENTER COPY

DFR



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

September 30 , 1994

Docket No. 50-277

Mr. George A. Hunger, Jr.  
Director-Licensing, MC 52A-5  
PECO Energy Company  
Nuclear Group Headquarters  
Correspondence Control Desk  
P.O. Box No. 195  
Wayne, Pennsylvania 19087-0195

Dear Mr. Hunger:

SUBJECT: EXEMPTION FROM 10 CFR PART 50, APPENDIX J, SECTION III.D.1.(a),  
PEACH BOTTOM ATOMIC POWER STATION, UNIT 2 (TAC NO. M89470)

The Commission has issued the enclosed exemption for the Peach Bottom Atomic Power Station, Unit 2, in response to your letter dated May 13, 1994.

The exemption involves a one-time schedular exemption from the requirements of 10 CFR Part 50, Appendix J, Section III.D.1.(a) to perform Type A tests at approximately equal intervals and within the 10-year service period.

The exemption has been forwarded to the Office of the Federal Register for publication.

Sincerely,

A handwritten signature in black ink, appearing to read "J. W. Shea".

Joseph W. Shea, Project Manager  
Project Directorate I-2  
Division of Reactor Projects- I/II  
Office of Nuclear Reactor Regulation

Enclosure:  
Exemption

cc w/enclosure:  
See next page

Mr. George A. Hunger, Jr.  
PECO Energy Company

Peach Bottom Atomic Power Station,  
Units 2 and 3

cc:

J. W. Durham, Sr., Esquire  
Sr. V.P. & General Counsel  
PECO Energy Company  
2301 Market Street, S26-1  
Philadelphia, Pennsylvania 19101

Mr. Rich R. Janati, Chief  
Division of Nuclear Safety  
Pennsylvania Department of  
Environmental Resources  
P. O. Box 8469  
Harrisburg, Pennsylvania 17105-8469

PECO Energy Company  
ATTN: Mr. G. R. Rainey, Vice President  
Peach Bottom Atomic Power Station  
Route 1, Box 208  
Delta, Pennsylvania 17314

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

PECO Energy Company  
ATTN: Regulatory Engineer, A1-2S  
Peach Bottom Atomic Power Station  
Route 1, Box 208  
Delta, Pennsylvania 17314

Public Service Commission of Maryland  
Engineering Division  
Chief Engineer  
6 St. Paul Centre  
Baltimore, MD 21202-6806

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

Mr. Richard McLean  
Power Plant and Environmental  
Review Division  
Department of Natural Resources  
B-3, Tawes State Office Building  
Annapolis, Maryland 21401

Regional Administrator, Region I  
U.S. Nuclear Regulatory Commission  
475 Allendale Road  
King of Prussia, Pennsylvania 19406

Mr. John Doering, Chairman  
Nuclear Review Board  
PECO Energy Company  
955 Chesterbrook Boulevard  
Mail Code 63C-5  
Wayne, Pennsylvania 19087

Mr. Roland Fletcher  
Department of Environment  
201 West Preston Street  
Baltimore, Maryland 21201

Carl D. Schaefer  
External Operations - Nuclear  
Delmarva Power & Light Company  
P.O. Box 231  
Wilmington, DE 19899

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
	)	
Philadelphia Electric Company	)	Docket No. 50-277
Public Service Electric and Gas	)	
Company	)	
Delmarva Power and Light Company	)	
Atlantic City Electric Company	)	
(Peach Bottom Atomic Power Station,	)	
Unit 2)	)	

EXEMPTION

I.

Philadelphia Electric Company, et. al (PECo, the licensees), is the holder of Facility Operating License No. DPR-44, which authorizes operation of the Peach Bottom Atomic Power Station (PBAPS), Unit 2. The license provides, among other things, that the licensee is subject to all rules, regulations, and orders of the Nuclear Regulatory Commission (the Commission) now and hereafter in effect.

The PBAPS, Unit 2, facility consists of a boiling water reactor located in York County, Pennsylvania.

II.

In its letter dated May 13, 1994, the licensee requested an exemption from the Commission's regulations. The subject exemption is from a requirement in Appendix J to 10 CFR Part 50 that a set of three Type A tests (Containment Integrated Leak Rate Tests (CILRTs)) be performed, at approximately equal intervals, during each 10-year service period. The exemption applies to the second 10-year service period; subsequent service periods are not changed.

The type A test is defined in 10 CFR Part 50, Appendix J, Section II.F, as "tests intended to measure the primary reactor containment overall integrated leakage rate (1) after the containment has been completed and is ready for operation, and (2) at periodic intervals thereafter." The 10-year service period begins with the inservice date. The request for a one-time exemption would allow an extension of the second 10-year Type A service period and would allow the performance of the three Type A tests in the second 10-year service period at intervals that are not approximately equal. It does not affect the third 10-year service period.

Current TS and 10 CFR Part 50, Appendix J, would require performing a Type A test during Unit 2's refueling outage 10 scheduled for September 1994 in order to comply with the requirement to perform three Type A tests within the current 10-year service period. Furthermore, 10 CFR Part 50, Appendix J, would also require a Type A test to be performed during the next refueling outage (Unit 2 refueling outage 11 scheduled for September 1996) in order to coincide with the end of the current 10-year plant inservice inspection (ISI) interval. The current 10-year ISI period ends in November 1997 and current ISI inspections are scheduled for September 1996. Therefore, to fully comply with Appendix J, the licensee would have to perform CILRTs during the tenth and eleventh refueling outages for Unit 2.

The licensee stated that the first and second CILRTs of the set of three tests for the second 10-year service period for PBAPS were conducted in February 1989 and April 1991. Thus, the first CILRT testing interval of the second 10-year service period was approximately 44 months, and the second CILRT testing interval was approximately 27 months. The time interval between

CILRTs should be about 40 months based on performing three such tests at approximately equal intervals during each 10-year service period. The third of the second set of three CILRTs will be scheduled for Refueling Outage 11, projected to start in September 1996, pending approval of the exemption request. Issuance of this exemption would allow the extension of the second 10-year service period such that the next CILRT would be performed during Refueling Outage 11, approximately 66 months after the April 1991 CILRT.

The licensee performed a review of the history of the PBAPS Unit 2 CILRT results to evaluate the risk of activity-based and time-based degradation. This review identified only one activity-based component failure detected during past CILRTs. The measured mass point and total time leakage rates measured for the June 1985 CILRT stabilized at approximately 0.70% wt/day, which failed to meet the TS and 10 CFR Part 50, Appendix J criterion of less than 0.375% wt/day (0.75 La). Following the completion of repairs, the CILRT was repeated with an as-left leakage of 0.0156% wt/day. After this failure, the licensee modified the plant so that a similar failure, in the future, would be detected by a local leak rate test (LLRT).

The Type B and C test (i.e., LLRT) program provides assurance that containment integrity has been maintained. LLRTs demonstrate operability of components and penetrations by measuring penetration and valve leakage. Additionally, there have been no modifications made to the plant, since the last Type A test, that could adversely affect the test results.

The licensee further notes that the performance of consecutive Type A tests in refueling outages 2R010 and 2R011 to meet the requirements of the TS

and Appendix J, would result in additional radiation exposure to personnel. Performing the Type A test during two consecutive refueling outages in order to comply with the TS and 10 CFR Part 50, Appendix J, would result in an unnecessary increase in personnel radiation exposure and increased cost by increasing the length of one of the affected refueling outages. Omitting the test will result in additional dose savings by eliminating contamination and by reducing exposure from venting and draining and from setups and restorations of instrumentation required to perform the test. These factors and the costs associated with an additional test for a 24-month difference in interval are not offset by the benefits of the additional test.

For the reasons set forth above, the NRC staff concludes that this deviation from the 10-year service period ending August 1994 is not significant in terms of complying with the safety or scheduling requirements of Section III.D.1.(a) of Appendix J. Accordingly, the staff finds that the additional test would not provide substantially different information and that the intent of Appendix J is met. Therefore, the subject exemption request meets the special circumstances of 10 CFR 50.12(a)(2)(ii), in that the fourth Type A test is not necessary to achieve the underlying purpose of the rule.

On this basis, the NRC staff finds that the licensee has demonstrated that special circumstances are present as required by 10 CFR 50.12(a)(2). Further, the staff also finds that extending the service period will not present an undue risk to the public health and safety; since the licensee has justified the leaktight integrity of the containment based on previous leakage test results, the staff concludes that a one-time extension of the second

10-year service period and a one-time implementation of an extended test interval will not have a significant safety impact.

### III.

Pursuant to 10 CFR 50.12, the Commission may, upon application by any interested person or upon its own initiative, grant exemptions from the requirements of 10 CFR Part 50 when (1) the exemptions are authorized by law, will not present an undue risk to public health and safety, and are consistent with the common defense and security; and (2) when special circumstances are present. Special circumstances are present whenever, according to 10 CFR 50.12(a)(2)(ii), "Application of the regulation in the particular circumstances would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule...."

The underlying purpose of the requirement to perform Type A containment leak rate tests is to provide for periodic verification of the leak-tight integrity of the primary reactor containment. The licensee has demonstrated that the leak tight integrity of the primary containment can be assured the latest test results and by controlling the maintenance activities which affect a primary containment penetration. The Type B and C testing will provide additional assurance of the overall integrity of the primary containment.

On this basis, the NRC staff finds that the licensee has demonstrated that special circumstances are present as required by 10 CFR 50.12(a)(2)(ii). Since the licensee has justified the leaktight integrity of the containment based on previous leakage test results, the staff concludes that a one-time extension of the second 10-year service period will not have a significant



safety impact. The staff also finds that extending the interval between tests will not present an undue risk to the public health and safety.

#### IV.

Accordingly, the Commission has determined that, pursuant to 10 CFR 50.12, an exemption is authorized by law and will not present an undue risk to the public health and safety and that there are special circumstances present, as specified in 10 CFR 50.12(a)(2), such that application of 10 CFR Part 50, Appendix J, Section III.D.1.(a) is not necessary in order to achieve the underlying purpose of this regulation; and hereby grants the following exemption with respect to the requirements of 10 CFR Part 50, Appendix J, Section III.D.1.(a).

For the Peach Bottom Atomic Power Station, Unit 2, the second 10-year Type A service period is extended such that the third periodic Type A test may be performed during the Unit 2 Refueling Outage 11 currently scheduled for September 1996 and such that the three Type A tests in the second 10-year service period are performed at intervals that are not approximately equal.

Pursuant to 10 CFR 51.32, the Commission has determined that the granting of this exemption will have no significant effect on the quality of the human environment (59 FR 50018).

This exemption is effective upon issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/s/

Steven A. Varga, Director  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Dated at Rockville, Maryland  
this 30th day of September 1994

\*Previously Concurred

OFFICE:	PDI-2/BLA	PDI-2/PE	PDI-2/PM	PDI-2/D	OGC*	DRPE/AD*	DRPE/D*
NAME:	MO'Brien	TLiu	AShea:rb	MThadan	RWeisman	CMiller	SVarga
DATE:	9/21/94	9/20/94	9/20/94	9/20/94	09/23/94	09/26/94	09/27/94

Pursuant to 10 CFR 51.32, the Commission has determined that the granting of this exemption will have no significant effect on the quality of the human environment (59 FR 50018 ).

This exemption is effective upon issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Steven A. Varga, Director  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Dated at Rockville, Maryland  
this 30th day of September 1994