Station Support Department

10 CFR 50.12

PECO ENERGY

PECO Energy Company
Nuclear Group Headquarters
965 Chesterbrook Boulevard
Wayne, PA 19087-5691

April 18, 1994

Docket No. 50-277
License Nos. DPR-44

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

Subject: Peach Bottom Atomic Power Station, Unit 2
Request for Exemption from 10 CFR 50, Appendix J
Type B and C Test Intervals

Dear Sir:

Pursuant to 10 CFR 50.12(a), PECO Energy Company (PECO Energy) requests exemption from the two year test interval for Type B and C leak rate tests required by 10 CFR 50, Appendix J, Sections III.D.2(a) and III.D.3. Attachment 1 contains a discussion of the specific exemptions and the necessary justification in accordance with 10 CFR 50.12(a). Attachment 2 contains the surveillance tests for which the exemption would apply.

This exemption is requested on a one time only basis to support our current refueling outage schedule and avoid an extended reactor shutdown.

We request that this exemption be granted no later than July 15, 1994.

If you have any questions, please contact us.

Very truly yours,

G. A. Hunger, Jr.

G. A. Hunger, Jr., Director
Licensing

Attachments

cc: T. T. Martin, Administrator, Region I, USNRC
W. L. Schmidt, USNRC Senior Resident Inspector, PBAPS

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ATTACHMENT 1

Peach Bottom Atomic Power Station, Unit 2

Request for Exemption

from 10 CFR 50, Appendix J

Type B and C Test Intervals

REQUEST FOR EXEMPTION

DISCUSSION AND JUSTIFICATION

Sections III.D.2(a) and III.D.3 of 10 CFR 50, Appendix J, require that Type B and C containment penetration leak rate tests be performed at intervals no greater than two years. Accordingly, PECO Energy Company (PECO Energy) requests a one time exemption from these requirements for the surveillance tests (STs) identified in Tables 1 and 2 of Attachment 2 for a period of 60 days. If granted, the 60 day extension will be applied to the current expiration date of each ST listed on Tables 1 and 2.

Exemptions are being requested in order to 1) avoid an extended reactor shutdown in order to comply with the two year testing interval, and 2) to allow for scheduling flexibility in an operating cycle of 24 months. Peach Bottom Atomic Power Station, Unit 2 is now utilizing a new core design which allows the intervals between reactor shutdowns for refueling to extend beyond the maximum allowable two year interval. Prior to the current operating cycle, local leak rate tests were performed in conjunction with an operating cycle of 18 months. Use of extended cycle core designs has been recognized as a growing trend in the industry as discussed in Generic Letter 91-04, "Changes in Technical Specification Surveillance Intervals to Accommodate a 24-Month Fuel Cycle," dated April 2, 1991.

Table 1 contains 52 STs STs from which PECO Energy is requesting exemption. These 52 Type B and C STs are due to be tested prior to shutdown of PBAPS, Unit 2 for the upcoming Cycle 10 refueling outage scheduled to begin no later than September 24, 1994. PECO Energy requests exemption for these tests for a period of 60 days to avoid a premature reactor shutdown resulting from either isolation of necessary safety systems, or the need to access the drywell to test penetrations that are inaccessible during plant operations, and to obtain scheduling flexibility during the Cold Shutdown condition in which the need for primary containment is not necessary. Performance of these tests at the scheduled 24 month frequency would result in undue financial hardship with little or no compensating increase in the level of safety or quality.

For the 52 STs which will become due while the reactor is still at power, the earliest due date for any of these STs is August 22, 1994. This represents a maximum interval of only 33 days from the date that the ST will become due to the date that the reactor will be in Cold Shutdown. Extending the testing interval 60 days of which only 33 days will be during power operation, will not significantly impact the integrity of the containment boundary and, therefore, would not significantly impact the consequences of an accident or transient in the unlikely occurrence of such an event during the 33 days of power operation. This minimal impact on primary containment integrity has been further reduced through a large margin in primary containment integrity as discussed below.

The large margin in primary containment integrity can be demonstrated by review of the total Type B and C minimum pathway leak rates. The as-found value was 44,661 cc/min. and the as-left was 34,822 cc/min. as calculated for the PBAPS, Unit 2 Cycle 9 refueling outage in the Fall of 1992. This as-found and as-left leak rates represent a significant margin to the minimum pathway leakage, La, value of 125,417 cc/min. for primary containment. The extension of the 24 month testing interval for 33 days for the 52 STs listed in Table 1 would not be expected to significantly decrease this margin, even considering the extended operating cycle, to the point that primary containment integrity would be violated.

Table 2 contains 20 STs which are Type B and C tests scheduled to be performed on or after the shutdown of PBAPS, Unit 2 (September 24, 1994). PECO Energy requests exemption for these tests for a period of 60 days in order to obtain scheduling flexibility during the Cold Shutdown condition in which the need for primary containment integrity is not required.

The scheduling flexibility gained with a 60 day extension for the tests listed in Tables 1 and 2 will ensure that performance of the STs will not impact critical path activities and result in an unnecessary increase in the length of the outage. Extending the length of the outage would result in undue financial hardship with little or no compensating increase in the level of safety or quality.

All surveillance tests associated with this exemption will be completed prior to restart from the upcoming PBAPS, Unit 2, Cycle 10 refueling outage.

10 CFR 50.12 allows the Commission to grant exemptions from the requirements of regulations contained in 10 CFR Part 50 provided that: (1) the exemption is authorized by law; (2) the exemption will not present an undue risk to the public health and safety; (3) the exemption is consistent with the common defense and security; and (4) special circumstances, as defined in 10 CFR 50.12(a)(2), are present. Each of these criteria are discussed below.

1. <u>The Requested Exemption is Authorized by Law</u>

   If the criteria established in 10 CFR 50.12(a) are satisfied, as they are in this case, and if no prohibition of law exists to preclude the activities which would be authorized by the requested exemption, and there is no such prohibition, then the Commission is authorized by law to grant this exemption request.

2. <u>The Requested Exemption Does Not Present an Undue Risk to the Public Health and Safety</u>

As stated in 10 CFR 50, Appendix J, the purpose of the primary containment leak rate testing requirements is to ensure that leakage rates are maintained within the Technical Specification requirements and to assure that proper maintenance and repair is performed throughout the service life of the containment boundary components. The requested exemption is consistent with this intent in that it represent a one time only schedular extension of short duration (60 days). During this short duration, only 33 days will be at power operation; 52 STs that will exceed the 24 month interval during power operation and 20 STs will exceed the 24 month interval while in the Cold Shutdown condition. The required leak tests will still be performed to assess compliance with Technical Specification requirements and to assure than any required maintenance or repair is performed. Extending the 2 year interval by a short duration will not significantly impact the integrity of the containment boundary and, therefore, will not significantly impact the consequences of an accident or transient in the unlikely event of such an occurrence during the 33 days of power operation. For the 20 STs which exceed the 24 month testing interval during Cold Shutdown, the need for primary containment is not required, thus, reducing the safety consequences of their extension.

3. The Requested Exemption Will Not Endanger the Common Defense and Security

Containment penetration leak rate testing is not considered in the common defense and security of the nation. Therefore, this exemption will not impact the common defense and security.

4. Special Circumstances are Present

10 CFR 50.12(a)(2) indicates that special circumstances include conditions under which compliance would result in hardship or other costs that are significantly in excess of those contemplated when the regulation was adopted. When the regulation was adopted, a presumption was made that a two year test interval would easily accommodate performance of these tests during an operating cycle. However, the development of new core designs have resulted in fuel cycles of 24 months, or longer when there are unplanned outages during the cycle. Performance of these tests at the scheduled 24 month frequency would result in undue financial hardship resulting from an extended shutdown of the reactor beyond that intended by the regulation with little or no compensatory increase in the level of safety or quality. Therefore, special circumstances are present.

ENVIRONMENTAL IMPACT

This schedular exemption would not result in the modification of

any plant structures, systems or components. Neither would it result in a change in the way plant systems are operated. The requested exemption involves an administratively controlled surveillance test program and does not represent any increase in the maximum allowable routine or postulated post-accident releases or radioactive material to the environment or occupational exposures. Therefore, the environment would not be adversely impacted.

SCHEDULE

PECO Energy requests that this exemption be granted no later than July 15, 1994 in order to complete our planning for the upcoming outage.

ATTACHMENT 2

Tables 1 and 2

TABLE 1
2R10 SURVEILLANCE TESTS - EXPIRE BEFORE 9/24/94
SORTED BY EXPIRATION DATE

ST NO.	DESCRIPTION AND VALVE NUMBERS	EXPIRATION DATE	PENETRATION
20.07E.02	'B' CAD ANAL ISO VLVS SV-4960B SV-4961B SV-63G-8101 SV-4966B	08/22/94	26
20.07E.03	'C' CAD ANAL ISO VLVS SV-4960C SV-4961C SV-4966C	08/28/94	51C
20.07D.09	PCAC SAMPLE DISCH SV-2980 SV-2980	09/02/94	51D
20.07E.04	'D' CAD ANAL ISO VLV SV-4960D SV-4961D SV-4966D	09/02/94	203
20.07E.01	'A' CAD ANAL ISO VLV SV-4960A SV-4961A SV-4966A	09/05/94	219
20.60E.02	TIP BALL VALVES	09/08/94	35
20.07A.04	TORUS MANWAY O-RING - NE	09/12/94	200A
20.07A.08	'A' & 'B' TORUS DRAIN O-RING	09/12/94	213A,B
20.07A.09	TIP PENETRATION O-RINGS	09/12/94	35A-G
20.07B.12	TORUS PURGE EXHAUST AO-2513 AO-2514	09/12/94	219
20.07A.12	20S199 ELEC PENETRATIONS	09/13/94	100A,C, 104A-D, 105A,B 106A,B, 107, 220
20.07A.13	20S198 ELEC PENETRATIONS	09/13/94	100D,E, 101C-E, 103B 104E-H, 105C,D, 106C,D
20.07A.14	20S200 ELECT PENETRATIONS	09/13/94	101A,B,F
20.07A.16	2BS197 DW TO TORUS EXP JOINTS	09/13/94	201C,D
20.07A.17	2CS197 DW TO TORUS EXP JOINTS	09/13/94	201E,F
20.07A.23	TEST NOZZLE (N-250)	09/13/94	250
20.07B.06	2502B & 26B O-RINGS AO-2502B 7-26B	09/13/94	205A
20.16A.01	'A' ADS BCKUP N2 SUP 1"-176Y SV-8130A CHK-23299A	09/13/94	102BC
20.07A.07	DW PERSONNEL AIRLOCK O-RING	09/14/94	2
20.07B.05	TORUS VACUUM BREAKER 'B' AO-2502B 7-26B	09/14/94	205A

TABLE 1
2R10 SURVEILLANCE TESTS - EXPIRE BEFORE 9/24/94
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ST NO.	DESCRIPTION AND VALVE NUMBERS	EXPIRATION DATE	PENETRATION
20.16A.02	'B' ADS BCKUP N2 SUP 1"-176Y SV-8130B CHK-232998	09/14/94	47
20.07A.22	TEST NOZZLE (N-150)	09/15/94	150
20.07B.09	INST N2 COMPRESS SUCTION AO-2509 AO-2510 AO-4235 SV-8100	09/15/94	26
20.36A.01	D/W SERV AIR MAN VLVS	09/15/94	21
20.01J.1	MAIN STEAM SAMPLE VALVES AO-316 AO-317	09/16/94	57
20.07A.11	RPV STABILIZER MANWAYS	09/17/94	110A-H
20.10.03	'A' TORUS COOLING & SPRAY PACK MO-34A MO-38A	09/17/94	211B
20.10.05	'A' CONT. SPRAY MO-26A MO-31A	09/17/94	39B
20.10.06	'A' CONT SPRAY PACK MO-10-31A	09/17/94	39B
20.10.07	'A' RHR PUMP DISCH MO-25A AO-46A AO-163A HV-81A	09/17/94	13B
20.23.02	HPCI PUMP SUCTION MO-23-57 MO-23-58	09/17/94	227
20.07A.21	20S200 EXPANSION JOINTS	09/18/94	13B, 14, 16B, 17
20.13.02	RCIC PUMP SUCTION MO-13-39 MO-13-41	09/18/94	225
20.13.05	RCIC STOP CHECK O-RINGS HV-13C-9	09/18/94	212
20.13.06	RCIC TURB 2" DRAIN LINE AO-137 AO-138	09/18/94	212
20.13.08	RCIC VAC RELF VALVE 2" MO-4244	09/18/94	217B
20.14A.01	TORUS WATER CLEANUP MO-71 MO-70	09/18/94	225
20.23.06	HPCI TURBINE EXHAUST 2" LINE AO-137 AO-138	09/18/94	214

TABLE 1
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SORTED BY EXPIRATION DATE

ST NO.	DESCRIPTION AND VALVE NUMBERS	EXPIRATION DATE	PENETRATION
20.23.08	HPCI VACUUM RELIEF VALVE 3" MO-4245	09/18/94	217B
20.23.10	HPCI VACUUM RELIEF VLV PACK MO-23-4245	09/18/94	217B
20.60E.01	TIP PURGE SUPPLY	09/18/94	35D
20.07A.10	D/W HEAD ACCESS O-RING	09/19/94	4
20.14.01	'A' CORE SPRAY LOOP HV-14-14 CHK-14-13A AO-14-15A MO-14-12A	09/19/94	16B
20.03.01	SCRAM DISCH VOLUME AO-32A AO-32B AO-35A AO-35B AO-33 AO-36	09/20/94	SDV
20.06.01	F/W CHECK VALVE 28A MO-29A 6-28A	09/21/94	9A
20.07A.15	2AS197 DW TO TORUS EXP JOINTS	09/21/94	201A,B
20.07A.19	20S199 EXPANSION JOINTS	09/21/94	7A-D, 9A,B
20.07B.16	D/W PURGE SUPPLY AO-2523 CHK-7B-40095A CHK-7B-40095B	09/22/94	25, 205B
20.16.01	"A" INST N2 TO D/W AO-2969A CHK-16-23202A	09/22/94	22
20.20A.01	D/W FLOOR DRAIN SUMP DISCH AO-82 AO-83	09/22/94	18
20.20B.01	D/W EQUIP DRN SUMP DISCH AO-94 AO-95	09/22/94	19
20.61.01	TORUS LEVEL INDICAT	09/23/94	206

TOTAL 52

2TABLE1.RR

TABLE 2
2R10 SURVEILLANCE TESTS - EXPIRE ON/AFTER 9/24/94
SORTED BY EXPIRATION DATE

ST NO.	DESCRIPTION AND VALVE NUMBERS			EXPIRATION DATE	PENETRATION
20.16.02	'B' INST N2 TO D/W AO-2969B	CHK-16-23335	HV-16-23333	09/24/94	52F
20.35.01	RBCCW D/W ISOL VALVE MO-2373	MO-2374		09/24/94	23, 24
20.06.03	F/W CHECK VALVE 28B MO-29B	6-28B		09/28/94	9B
20.06.04	F/W CHECK VALVE 96B MO-29B MO-13-21	CHK-6-96B MO-12-68	MO-38B	09/28/94	9B
20.11.02	STANDBY LIQUID CONTROL CHK-11-16	XV-11-14A	XV-11-14B	09/29/94	42
20.10.02	'A' TORUS COOLING & SPRAY MO-34A	MO-38A	MO-39A	10/03/94	211B
20.16.03	B INST N2 TO DW/TORUS VAC BRK AO-2968	CHK-23261		10/09/94	218A
20.02E.01	RECIRC SAMPLE VALVES AO-39	AO-40		10/10/94	41
20.07B.03	TORUS VACUUM BREAKER 'A' AO-2502A	7-26A		10/10/94	205B
20.14.02	'B' CORE SPRAY LOOP HV-14-14 MO-14-12B	CHK-14-13B	AO-14-15B	10/14/94	16A
20.10.09	'B' TORUS COOLING & SPRAY MO-34B	MO-38B		10/15/94	211A
20.10.11	'B' CONT. SPRAY MO-26B	MO-31B		10/15/94	39A
20.10.12	'B' CONT SPRAY PACK MO-31B			10/15/94	39A
20.10.13	'B' RHR PUMP DISCHARGE MO-25B HV-81B	AO-46B	AO-163B	10/16/94	13B
20.44A.01	 MO-2200A MO-2201B	MO-2200B	MO-2201A	11/13/94	53, 54, 55, 56
20.07A.02	D/W HEAD SEAL			11/22/94	DW HD SEAL

TABLE 2
2R10 SURVEILLANCE TESTS - EXPIRE ON/AFTER 9/24/94
SORTED BY EXPIRATION DATE

ST NO.	DESCRIPTION AND VALVE NUMBERS	EXPIRATION DATE	PENETRATION
20.06.02	F/W CHECK VALVE 96A MO-29A 6-96A MO-38A MO-23-19	11/24/94	9A
20.10.14	RPV HEAD SEAL MO-32 MO-33	11/24/94	17
20.07B.07	DW PURGE EXHAUST AO-2506 AO-2507	11/26/94	26
20.07A.06	D/W EQUIP ACESS DOUBLE O-RING	11/29/94	1

TOTAL 20