



PEACH BOTTOM—THE POWER OF EXCELLENCE

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PEACH BOTTOM ATOMIC POWER STATION
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December 14, 1990

Docket Nos. 50-277
50-278

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

SUBJECT: Peach Bottom Atomic Power Station Monthly Operating Report

Gentlemen:

Enclosed are twelve copies of the monthly operating report for Peach Bottom Units 2 and 3 for the month of November 1990 forwarded pursuant to Technical Specification 6.9.1.d under the guidance of Regulatory Guide 10.1, Revision 4.

Sincerely,

ARF *JBC* *MJB*
DBM/AAF/JBC/DRM/MJB:cmc

Enclosure

- cc: R.A. Burricelli, Public Service Electric & Gas
- T.M. Gerusky, Commonwealth of Pennsylvania
- J.J. Lyash, USNRC Senior Resident Inspector
- R. McLean, State of Maryland
- T.T. Martin, Administrator, Region I, USNRC
- H.C. Schwemm, Atlantic Electric
- J. Urban, Delmarva Power
- INPO Records Center

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NRC Monthly Operations Summary
Peach Bottom Atomic Power Station
November 1990

UNIT 2

The unit began the month at 100% power. The first significant power reduction occurred on November 10, when power was reduced to 62% for rod pattern adjustment, waterbox cleaning, and minor maintenance. Activities were completed and power was restored to 100% on November 13 and remained there until November 15, when problems with the 4KV emergency switchgear undervoltage relays required the unit to be placed in shutdown. A 2150 hertz noise signal in the switchgear caused the emergency bus voltage relays to trip lower than tech spec requirements. The relays were modified to filter the noise, and startup began on November 19. The unit began power production on November 20. Increases in power continued over the next several days. By November 25, power had increased to and was held at 98% because maximum core flow had been reached. After a control rod pattern adjustment was made on November 26, power was increased to 100% where it remained through the end of the month.

UNIT 3

The unit began the month shut down for the mid cycle outage. Outage activities were completed and power generation resumed on November 23. Startup testing and computer acceptance testing were completed, and the unit achieved power levels above 85% by November 27. A reduction to 75% became necessary because of a degrading coupling on the "C" reactor feed pump. Power was held below 80% through November 29 while maintenance activities were completed. On November 30 power increases of 10 Mwe per hour were in progress.

UNIT 2 REFUELING INFORMATION

1. Name of facility:
Peach Bottom Unit 2
2. Scheduled date for next refueling shutdown:
January 12, 1991
3. Scheduled date for restart following refueling:
March 21, 1991
4. Will refueling or resumption of operation therefore require a technical specification change or other license amendment?
Yes.
If answer is yes, what, in general, will these be?
Safety limit MCPR for cycle 9.
5. Scheduled date(s) for submitting proposed licensing action and supporting information:
January 1991
6. Important licensing considerations associated with refueling, e.g., new or different fuel design or supplier, unreviewed design or performance analysis methods, significant changes in fuel design, new operating procedures:
7. The number of fuel assemblies (a) in the core and (b) in the spent fuel storage pool:
(a) Core - 764 Fuel Assemblies
(b) Fuel Pool - 1734 Fuel Assemblies, 58 Fuel Rods

UNIT 2 REFUELING INFORMATION (Continued)

8. The present licensed spent fuel pool storage capacity and the size of any increase in licensed storage capacity that has been requested or is planned, in number of fuel assemblies:

The spent fuel pool storage capacity has been relicensed for 3819 fuel assemblies.

9. The projected date of the last refueling that can be discharged to the spent fuel pool assuming the present capacity:

September 2003 without full core offload capability.

September 1997 with full core offload capability.

UNIT 3 REFUELING INFORMATION

1. Name of facility:
Peach Bottom Unit 3
2. Scheduled date for next refueling shutdown:
Reload 8 scheduled for August 31, 1991
3. Scheduled date for restart following refueling
Restart following refueling scheduled for November 29, 1991
4. Will refueling or resumption of operation thereafter require a technical specification change or other license amendment?
Yes.
If answer is yes, what, in general, will these be?
Safety limit MCPR for cycle 9 fuel.
5. Scheduled date(s) for submitting proposed licensing action and supporting information:
January 1991
6. Important licensing considerations associated with refueling, e.g., new or different fuel design or supplier, unreviewed design or performance analysis methods, significant changes in fuel design, new operating procedures:
7. The number of fuel assemblies (a) in the core and (b) in the spent fuel storage pool:
(a) Core - 764 Fuel Assemblies
(b) Fuel Pool - 1496 Fuel Assemblies, 6 Fuel Rods

UNIT 3 REFUELING INFORMATION (Continued)

8. The present licensed spent fuel pool storage capacity and the size of any increase in licensed storage capacity that has been requested or is planned, in number of fuel assemblies.

The spent fuel pool storage capacity has been relicensed for 3819 fuel assemblies. Modification of the fuel pool is expected to be complete in the second quarter of 1991.

9. The projected date of the last refueling that can be discharged to the spent fuel pool assuming the present capacity:

With the current fuel pool capacity (prior to the completion of the fuel pool reracking modification):
September 1996 without full core offload capability.
End of next cycle with full core offload capability (est. January 1991).
With increased fuel pool capacity (subsequent to the completion of the fuel pool reracking modification):
September 2004 without full core offload capability.
September 1998 with full core offload capability.

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 80 - 277

UNIT PEACH BOTTOM UNIT 2

DATE DECEMBER 15, 1990

COMPANY PHILADELPHIA ELECTRIC COMPANY

M. J. BARN
SUPERVISOR
REPORTS GROUP
PEACH BOTTOM ATOMIC POWER STATION

TELEPHONE (717) 456-7014 EXT. 3321

MONTH NOVEMBER 1990

DAY	AVERAGE DAILY POWER LEVEL (MWE-NET)	DAY	AVERAGE DAILY POWER LEVEL (MWE-NET)
1	1062	17	0
2	1068	18	0
3	1052	19	0
4	1042	20	5
5	1041	21	215
6	1039	22	398
7	1040	23	778
8	1047	24	958
9	1059	25	1058
10	644	26	1042
11	766	27	1059
12	867	28	1071
13	1001	29	1075
14	1056	30	1067
15	607		
16	0		

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50 - 278

UNIT PEACH BOTTOM UNIT 3

DATE DECEMBER 15, 1990

COMPANY PHILADELPHIA ELECTRIC COMPANY

M. J. BARON
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MONTH NOVEMBER 1990

DAY	AVERAGE DAILY POWER LEVEL (MWE-NET)	DAY	AVERAGE DAILY POWER LEVEL (MWE-NET)
1	0	17	0
2	0	18	0
3	0	19	0
4	0	20	0
5	0	21	0
6	0	22	0
7	0	23	8
8	0	24	206
9	0	25	431
10	0	26	737
11	0	27	933
12	0	28	760
13	0	29	905
14	0	30	924
15	0		
16	0		

OPERATING DATA REPORT

DOCKET NO. 50 - 277

DATE DECEMBER 15, 1990

COMPLETED BY PHILADELPHIA ELECTRIC COMPANY

W. J. BARON
SUPERVISOR
REPORTS GROUP
PEACH BOTTOM ATOMIC POWER STATION
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OPERATING STATUS

1. UNIT NAME: PEACH BOTTOM UNIT 2
2. REPORTING PERIOD: NOVEMBER, 1990
3. LICENSED THERMAL POWER(MWT): 3298
4. NAMEPLATE RATING (GROSS MWE): 1152
5. DESIGN ELECTRICAL RATING (NET MWE): 1065
6. MAXIMUM DEPENDABLE CAPACITY (GROSS MWE): 1096
7. MAXIMUM DEPENDABLE CAPACITY (NET MWE): 1055

NOTES:

8. IF CHANGES OCCUR IN CAPACITY RATINGS (ITEMS NUMBER 3 THROUGH 7) SINCE LAST REPORT, GIVE REASONS:

9. POWER LEVEL TO WHICH RESTRICTED, IF ANY (NET MWE):

10. REASONS FOR RESTRICTIONS, IF ANY:

	THIS MONTH	YR-TO-DATE	CUMULATIVE
11. HOURS IN REPORTING PERIOD	720	8,016	143,832
12. NUMBER OF HOURS REACTOR WAS CRITICAL	634.7	6,429.4	85,956.7
13. REACTOR RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
14. HOURS GENERATOR ON-LINE	593.3	6,235.8	82,841.1
15. UNIT RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
16. GROSS THERMAL ENERGY GENERATED (MWH)	1,758,840	18,725,424	244,021,617
17. GROSS ELECTRICAL ENERGY GENERATED (MWH)	573,100	6,148,700	80,208,590
18. NET ELECTRICAL ENERGY GENERATED (MWH)	553,609	5,921,415	76,776,264

 DATE DECEMBER 15, 1990

	THIS MONTH	YR-TO-DATE	CUMULATIVE
19. UNIT SERVICE FACTOR	82.4	77.8	57.6
20. UNIT AVAILABILITY FACTOR	82.4	77.8	57.6
21. UNIT CAPACITY FACTOR (USING MDC NET)	72.9	70.0	50.6
22. UNIT CAPACITY FACTOR (USING DER NET)	72.2	69.4	50.1
23. UNIT FORCED OUTAGE RATE	17.6	14.8	14.5
24. SHUTDOWNS SCHEDULED OVER NEXT 6 MONTHS (TYPE, DATE, AND DURATION OF EACH):			

25. IF SHUTDOWN AT END OF REPORT PERIOD, ESTIMATED DATE OF STARTUP:

26. UNITS IN TEST STATUS (PRIOR TO COMMERCIAL OPERATION):	FORECAST	ACHIEVED
INITIAL CRITICALITY		09/16/73
INITIAL ELECTRICITY		02/18/74
COMMERCIAL OPERATION		07/05/74

OPERATING DATA REPORT

DOCKET NO. 50 - 278

DATE DECEMBER 15, 1990

COMPLETED BY PHILADELPHIA ELECTRIC COMPANY

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SUPERVISOR
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PEACH BOTTOM ATOMIC POWER STATION

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OPERATING STATUS

1. UNIT NAME: PEACH BOTTOM UNIT 3
2. REPORTING PERIOD: NOVEMBER, 1990
3. LICENSED THERMAL POWER(MWT): 3293
4. NAMEPLATE RATING (GROSS MWE): 1152
5. DESIGN ELECTRICAL RATING (NET MWE): 1065
6. MAXIMUM DEPENDABLE CAPACITY (GROSS MWE): 1098
7. MAXIMUM DEPENDABLE CAPACITY (NET MWE): 1035
8. IF CHANGES OCCUR IN CAPACITY RATINGS (ITEMS NUMBER 3 THROUGH 7) SINCE LAST REPORT, GIVE REASONS:
9. POWER LEVEL TO WHICH RESTRICTED, IF ANY (NET MWE):
10. REASONS FOR RESTRICTIONS, IF ANY:

NOTES:

	THIS MONTH	YR-TO-DATE	CUMULATIVE
11. HOURS IN REPORTING PERIOD	720	8,016	139,728
12. NUMBER OF HOURS REACTOR WAS CRITICAL	213.5	7,100.1	84,258.9
13. REACTOR RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
14. HOURS GENERATOR ON-LINE	170.4	6,944.4	81,346.6
15. UNIT RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
16. GROSS THERMAL ENERGY GENERATED (MWH)	386,928	21,316,373	237,479,242
17. GROSS ELECTRICAL ENERGY GENERATED (MWH)	121,700	7,015,200	77,887,332
18. NET ELECTRICAL ENERGY GENERATED (MWH)	113,993	6,767,280	74,609,848

DATE DECEMBER 15, 1990

	THIS MONTH	YR-TO-DATE	CUMULATIVE
19. UNIT SERVICE FACTOR	23.7	86.6	58.2
20. UNIT AVAILABILITY FACTOR	23.7	86.6	58.2
21. UNIT CAPACITY FACTOR (USING MDC NET)	15.3	81.6	51.6
22. UNIT CAPACITY FACTOR (USING DER NET)	14.9	79.3	50.1
23. UNIT FORCED OUTAGE RATE	0.0	5.5	12.6
24. SHUTDOWNS SCHEDULED OVER NEXT 6 MONTHS (TYPE, DATE, AND DURATION OF EACH):			

25. IF SHUTDOWN AT END OF REPORT PERIOD, ESTIMATED DATE OF STARTUP:

26. UNITS IN TEST STATUS (PRIOR TO COMMERCIAL OPERATION):	FORECAST	ACHIEVED
INITIAL CRITICALITY		08/07/74
INITIAL ELECTRICITY		09/01/74
COMMERCIAL OPERATION		12/23/74

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50 - 277

UNIT NAME PEACH BOTTOM UNIT 2

DATE DECEMBER 15, 1990

REPORT MONTH NOVEMBER, 1990

COMPLETED BY PHILADELPHIA ELECTRIC COMPANY

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NO.	DATE	TYPE (1)	DURATION (HOURS)	REASON (2)	METHOD OF SHUTTING DOWN REACTOR (3)	LICENSEE EVENT REPORT #	SYSTEM CODE (4)	COMPONENT CODE (5)	CAUSE AND CORRECTIVE ACTION TO PREVENT RECURRENCE
22	901109	S	0.0	M	4	N/A	RB	CONROD	CONTROL ROD PATTERN ADJUSTMENT. CLEAN WATERBOX TUBE SHEETS. REACTOR WAS NOT SHUT DOWN.
23	901115	F	126.7	H	1	2-90-35	EB	RELAYX	INSTALL FILTERS ON VARIOUS 4KV UNDERVOLTAGE RELAYS.
			<u>126.7</u>						

(1)

F - FORCED
S - SCHEDULED

(2)

REASON
A - EQUIPMENT FAILURE (EXPLAIN)
B - MAINTENANCE OR TEST
C - REFUELING
D - REGULATORY RESTRICTION
E - OPERATOR TRAINING + LICENSE EXAMINATION
F - ADMINISTRATIVE
G - OPERATIONAL ERROR (EXPLAIN)
H - OTHER (EXPLAIN)

(3)

METHOD
1 - MANUAL
2 - MANUAL SCRAM.
3 - AUTOMATIC SCRAM.
4 - OTHER (EXPLAIN)

(4)

EXHIBIT G - INSTRUCTIONS
FOR PREPARATION OF DATA
ENTRY SHEETS FOR LICENSEE
EVENT REPORT (LER)
FILE (NUREG-0161)

(5)

EXHIBIT I - SAME SOURCE

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50 - 278

UNIT NAME PEACH BOTTOM UNIT 3

DATE DECEMBER 15, 1990

REPORT MONTH NOVEMBER, 1990

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NO.	DATE	TYPE (1)	DURATION (HOURS) (2)	REASON (2)	METHOD OF SHUTTING DOWN REACTOR (3)	LICENSEE EVENT REPORT #	SYSTEM CODE (4)	COMPONENT CODE (5)	CAUSE AND CORRECTIVE ACTION TO PREVENT RECURRENCE
18	901101	S	549.6	H	4	N/A	ZZ	ZZZZZZ	MID-CYCLE OUTAGE
19	901127	F	0.0	H	4	N/A	CH	PUMPXX	"C" REACTOR FEED PUMP COUPLING REPAIR. REACTOR WAS NOT SHUT DOWN.
			<u>549.6</u>						

(1)

F - FORCED
S - SCHEDULED

(2)

REASON
A - EQUIPMENT FAILURE (EXPLAIN)
B - MAINTENANCE OR TEST
C - REFUELING
D - REGULATORY RESTRICTION
E - OPERATOR TRAINING + LICENSE EXAMINATION
F - ADMINISTRATIVE
G - OPERATIONAL ERROR (EXPLAIN)
H - OTHER (EXPLAIN)

(3)

METHOD
1 - MANUAL
2 - MANUAL SCRAM.
3 - AUTOMATIC SCRAM.
4 - OTHER (EXPLAIN)

(4)

EXHIBIT G - INSTRUCTIONS
FOR PREPARATION OF DATA
ENTRY SHEETS FOR LICENSEE
EVENT REPORT (LER)
FILE (NUREG-0161)

(5)

EXHIBIT I - SAME SOURCE