

Peach Bottom Atomic Power Station  
Narrative Summary of Operating Experiences  
February, 1986

UNIT 2

The unit began the report period shutdown for a maintenance outage to repair the E-2 diesel generator, inspection of snubbers in the drywell and replacement of the 2B Residual Heat Removal (RHR) pump impeller and wear rings.

On February 6, the reactor was started, and the turbine-generator was synchronized later that day. Full power operation was achieved on February 11.

On February 15, a load reduction to 760 MWE was taken to accommodate a control rod pattern adjustment. The unit returned to full power later that day and maintained full power operation for the remainder of the month.

Unit 3

The unit began the report period shutdown for its sixth refueling and maintenance outage. Return to service is scheduled for early March, 1986.

The Loss of Offsite Power Test was completed on February 7.

On February 12, the turbine oil system was placed into service with the turbine-generator on turning gear. Condenser vacuum was established on February 14.

On February 16, a blown fuse, resulting from a short in a ribbon cable on the condenser vacuum recorder, caused the reject valves from the hotwell to the condensate storage tank (CST) to fail open, thereby directing a portion of the operating condensate pump's flow to the CST. As a result, the CST overflowed into the surrounding moat. The water drained through two holes that had been left unsealed in the floor of the moat, entered a nearby yard sump, and was then pumped to the river via the storm drains. The total release was estimated to be 36,000 gallons with a total activity of 0.37 curies. This was within the allowable limits of Technical Specifications. At a meeting on February 21 to discuss the failure of the controller for the reject valve, the NRC requested that PECO repair the moat surrounding the CST prior to startup. The repairs to the moat were completed on February 27.

On February 14, all work in the drywell was completed. Checkoff lists for startup were completed on February 24.

Activities in progress as of the end of the report period in preparation for startup included:

- 3B Recirculation System Motor-Generator (M-G) set balance work,
- RHR MO-10-39A valve repair and Local Leak Rate Test (LLRT), and
- LLRT for the High Pressure Coolant Injection (HPCI) system AO-23-18 valve.

LLM/vdw

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- 3B Recirculation System Motor-Generator (M-G) set balance work,
- RHR MO-10-39A valve repair and Local Leak Rate Test (LLRT), and
- LLRT for the High Pressure Coolant Injection (HPCI) system AO-23-18 valve.

LLM/vdw

REFUELING INFORMATION

1. Name of facility:

Peach Bottom Unit 2

2. Scheduled date for next refueling shutdown:

January 31, 1987

3. Scheduled date for restart following refueling:

May 1, 1987

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?

Technical Specifications to accommodate reload fuel.  
Modifications to reactor core operating limits.

5. Scheduled date(s) for submitting proposed licensing action and supporting information:

Reload 7 license amendment to be submitted December 12, 1986.

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:

None expected.

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 - 1462 Fuel Assemblies, 58 Fuel Rods

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. Replacement higher density fuel racks were approved by the NRC on February 19, 1986 which increases the licensed fuel pool capacity to a total of 3819 fuel bundles in each fuel pool.

REFUELING INFORMATION

1. Name of facility:

Peach Bottom Unit 3

2. Scheduled date for next refueling shutdown:

May 16, 1987

3. Scheduled date for restart following refueling:

May 14, 1988

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?

Technical Specifications to accommodate reload fuel.  
Modifications to reactor core operating limits.

5. Scheduled date(s) for submitting proposed licensing action and supporting information:

Reload 7 License Amendment to be submitted January 7, 1988

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:

None expected.

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

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. Replacement higher density fuel racks were approved by the NRC on February 19, 1986 which increases the licensed fuel pool capacity to a total of 3819 fuel bundles in each fuel pool.

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50 - 277

UNIT PEACH BOTTOM UNIT 2

DATE MARCH 14, 1986

COMPANY PHILADELPHIA ELECTRIC COMPANY

W.M. ALDEN  
ENGINEER-IN-CHARGE  
LICENSING SECTION  
NUCLEAR GENERATION DIVISION

TELEPHONE (215) 841-5022

MONTH FEBRUARY 1986

DAY	AVERAGE DAILY POWER LEVEL (MWE-NET)	DAY	AVERAGE DAILY POWER LEVEL (MWE-NET)
1	0	17	1036
2	0	18	1038
3	0	19	1052
4	0	20	1071
5	0	21	1073
6	69	22	1073
7	425	23	1072
8	441	24	1074
9	736	25	1074
10	967	26	1074
11	1031	27	1074
12	1042	28	1072
13	1033		
14	1037		
15	950		
16	1035		

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50 - 278

UNIT PEACH BOTTOM UNIT 3

DATE MARCH 14, 1986

COMPANY PHILADELPHIA ELECTRIC COMPANY

W.M. ALDEN  
ENGINEER-IN-CHARGE  
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NUCLEAR GENERATION DIVISION

TELEPHONE (215) 841-5022

MONTH FEBRUARY 1986

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	0
8	0	24	0
9	0	25	0
10	0	26	0
11	0	27	0
12	0	28	0
13	0		
14	0		
15	0		
16	0		

OPERATING DATA REPORT

DOCKET NO. 50 - 277

DATE MARCH 14, 1986

COMPLETED BY PHILADELPHIA ELECTRIC COMPANY

W.M. ALDEN  
ENGINEER-IN-CHARGE  
LICENSING SECTION  
NUCLEAR GENERATION DIVISION  
TELEPHONE (215) 841-5022

OPERATING STATUS

- |   |      |  |                                    |  |
|---|------|--|------------------------------------|--|
| 1. UNIT NAME: PEACH BOTTOM UNIT 2           |      |  | NOTES: UNIT 2 EXPERIENCED ONE AUTO |  |
| -----                                       |      |  |                                    |  |
| 2. REPORTING PERIOD: FEBRUARY, 1986         |      |  | SCRAM, AND ONE SCHEDULED           |  |
| -----                                       |      |  |                                    |  |
| 3. LICENSED THERMAL POWER (MWT):            | 3293 |  | LOAD REDUCTION.                    |  |
| -----                                       |      |  |                                    |  |
| 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):   | 1051 |  |                                    |  |
| -----                                       |      |  |                                    |  |
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	672	1,416	102,168
-----	-----	-----	-----
12. NUMBER OF HOURS REACTOR WAS CRITICAL	547.2	985.7	66,179.9
-----	-----	-----	-----
13. REACTOR RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
-----	-----	-----	-----
14. HOURS GENERATOR ON-LINE	533.7	944.8	64,073.6
-----	-----	-----	-----
15. UNIT RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
-----	-----	-----	-----
16. GROSS THERMAL ENERGY GENERATED (MWH)	1,628,671	2,670,312	188,936,827
-----	-----	-----	-----
17. GROSS ELECTRICAL ENERGY GENERATED (MWH)	534,180	869,150	62,082,110
-----	-----	-----	-----
18. NET ELECTRICAL ENERGY GENERATED (MWH)	516,156	837,067	59,429,362
-----	-----	-----	-----
19. UNIT SERVICE FACTOR	79.4	66.7	62.7
-----	-----	-----	-----



20. UNIT AVAILABILITY FACTOR	79.4	66.7	62.7
	-----	-----	-----
21. UNIT CAPACITY FACTOR (USING MDC NET)	73.1	56.2	55.3
	-----	-----	-----
22. UNIT CAPACITY FACTOR (USING DER NET)	72.1	55.5	54.6
	-----	-----	-----
23. UNIT FORCED OUTAGE RATE	20.6	27.0	13.3
	-----	-----	-----

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	-----	<u>09/16/73</u>
INITIAL ELECTRICITY	-----	<u>02/18/74</u>
COMMERCIAL OPERATION	-----	<u>07/05/74</u>

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50 - 277

UNIT NAME PEACH BOTTOM UNIT 2

DATE MARCH 14, 1986

REPORT MONTH FEBRUARY, 1986

COMPLETED BY PHILADELPHIA ELECTRIC COMPANY

W.M. ALDEN  
ENGINEER-IN-CHARGE  
LICENSING SECTION  
NUCLEAR GENERATION DIVISION  
TELEPHONE (215) 841-5022

NO.	DATE	(1)	(HOURS)	(2)	REACTOR	METHOD OF SHUTTING DOWN (3)	LICENSEE EVENT REPORT #	SYSTEM CODE (4)	COMPONENT CODE (5)	CAUSE AND CORRECTIVE ACTION TO PREVENT RECURRENCE
9	860201	F	138.3	A	3	2-86-3	EE	ENGINE	DIESEL INOPERABLE. SCRAM FROM 96% POWER DUE TO THE CLOSURE OF TWO MSIVS, COINCIDENT WITH THE FAILURE OF THE E-2 DIESEL GENERATOR.	
10	860215	S	0.0	B	4	N/A	RC	ZZZZZ	LOAD REDUCTION TO 760 MWE FOR CONTROL ROD PATTERN ADJUSTMENT.	
			138.3							

(1)

(2)

(3)

(4)

F - FORCED  
S - SCHEDULED

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)

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

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

(5)

EXHIBIT I - SAME SOURCE

20. UNIT AVAILABILITY FACTOR	0.0	0.0	68.2
	-----	-----	-----
21. UNIT CAPACITY FACTOR (USING MDC NET)	0.0	0.0	60.5
	-----	-----	-----
22. UNIT CAPACITY FACTOR (USING DER NET)	0.0	0.0	58.8
	-----	-----	-----
23. UNIT FORCED OUTAGE RATE	0.0	0.0	7.1
	-----	-----	-----

24. SHUTDOWNS SCHEDULED OVER NEXT 6 MONTHS (TYPE, DATE, AND DURATION OF EACH):

SCHEDULED SHUTDOWN FOR REFUELING AND MAINTENANCE OUTAGE,  
STARTED 7/14/85

25. IF SHUTDOWN AT END OF REPORT PERIOD, ESTIMATED DATE OF STARTUP: 3/2/86

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

\* - NEGATIVE VALUE REPORTED FOR CONSISTENCY WITH FEDERAL ENERGY REGULATORY COMMISSION REPORTS.

OPERATING DATA REPORT

DOCKET NO. 50 - 278

DATE MARCH 14, 1986

COMPLETED BY PHILADELPHIA ELECTRIC COMPANY

W.M. ALDEN  
ENGINEER-IN-CHARGE  
LICENSING SECTION  
NUCLEAR GENERATION DIVISION  
TELEPHONE (215) 841-5022

OPERATING STATUS

- |   |  |  |                                   |  |
|---|--|--|-----------------------------------|--|
| 1. UNIT NAME: PEACH BOTTOM UNIT 3   |  |  | NOTES: UNIT 3 CONTINUED ITS SIXTH |  |
| -----   |  |  |                                   |  |
| 2. REPORTING PERIOD: FEBRUARY, 1986   |  |  | REFUELING AND MAINTENANCE         |  |
| -----   |  |  |                                   |  |
| 3. LICENSED THERMAL POWER (MWT): 3293   |  |  | OUTAGE.                           |  |
| -----   |  |  |                                   |  |
| 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:   |  |  |                                   |  |

	THIS MONTH	YR-TO-DATE	CUMULATIVE
11. HOURS IN REPORTING PERIOD	672	1,416	98,064
-----	-----	-----	-----
12. NUMBER OF HOURS REACTOR WAS CRITICAL	0	0	68,613.2
-----	-----	-----	-----
13. REACTOR RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
-----	-----	-----	-----
14. HOURS GENERATOR ON-LINE	0.0	0.0	66,854.4
-----	-----	-----	-----
15. UNIT RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
-----	-----	-----	-----
16. GROSS THERMAL ENERGY GENERATED (MWH)	0	0	194,996,664
-----	-----	-----	-----
17. GROSS ELECTRICAL ENERGY GENERATED (MWH)	0	0	63,993,670
-----	-----	-----	-----
18. NET ELECTRICAL ENERGY GENERATED (MWH)	* -4,141	* -9,484	61,383,257
-----	-----	-----	-----
19. UNIT SERVICE FACTOR	0.0	0.0	68.2
-----	-----	-----	-----

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50 - 278

UNIT NAME PEACH: BOTTOM UNIT 3

DATE MARCH 14, 1986

REPORT MONTH FEBRUARY, 1986

COMPLETED BY PHILADELPHIA ELECTRIC COMPANY

W.M. ALDEN  
ENGINEER-IN-CHARGE  
LICENSING SECTION  
NUCLEAR GENERATION DIVISION  
TELEPHONE (215) 841-5022

NO.	DATE	(1)	(HOURS)	(2)	METHOD OF SHUTTING DOWN REACTOR (3)	LICENSEE EVENT REPORT #	SYSTEM CODE (4)	COMPONENT CODE (5)	CAUSE AND CORRECTIVE ACTION TO PREVENT RECURRENCE
1	860201	S	672.0	C	4	N/A	RC	FUELXX	SHUTDOWN FOR SIXTH REFUELING AND MAINTENANCE OUTAGE.
			-----						
			672.0						

(1)

(2)

(3)

(4)

F - FORCED  
S - SCHEDULED

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)

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

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

(5)

EXHIBIT I - SAME SOURCE

PHILADELPHIA ELECTRIC COMPANY

2301 MARKET STREET

P.O. BOX 8699

PHILADELPHIA, PA. 19101

(215) 841-4000

March 14, 1986

Docket Nos. 50-277  
50-278

Director  
Office of Inspection & Enforcement  
US Nuclear Regulatory Commission  
Washington, DC 20555

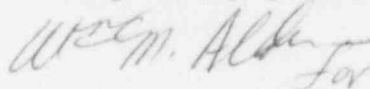
Attention: Document Control Desk

SUBJECT: Peach Bottom Atomic Power Station  
Monthly Operating Report

Gentlemen:

Attached are twelve copies of the monthly operating report for Peach Bottom Units 2 and 3 for the month of February, 1986 forwarded pursuant to Technical Specification 6.9.1.d under the guidance of Regulatory Guide 10.1, Revision 4.

Very truly yours,



R. H. Logue  
Superintendent  
Nuclear Services

Attachment

cc: Dr. T. E. Murley, NRC  
Mr. T. P. Johnson, Resident Inspector  
Mr. Stan P. Mangi, Dept. of Envir. Resources  
Mr. P. A. Ross, NRC (2 copies)  
Mr. Thomas Magette, Maryland Power Plant Siting  
INPO Records Center

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