

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

November 10, 1976



Mr. William McDonald, Director
Office of Management Information and
Program Control
U.S. Nuclear Regulatory Commission
Washington, D. C. 20555

Serial No. 281/021974
PO&M/ALH:clw

Docket Nos. 50-280
50-281
License Nos. DPR-32
DPR-37

Dear Mr. McDonald:

Operating information for Surry Power Station, Unit Nos. 1 and 2, for the month of October 1976 is attached.

Very truly yours,

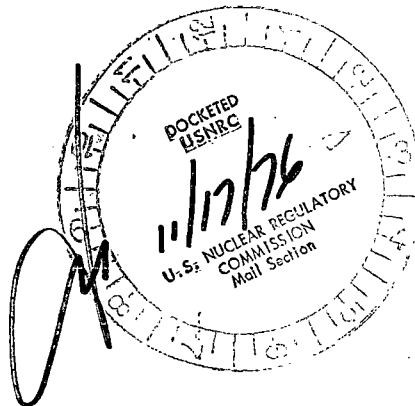
A handwritten signature in cursive script, appearing to read "C. M. Stallings".

C. M. Stallings
Vice President-Power Supply
and Production Operations

Attachment

cc: Mr. Norman C. Moseley

REGULATORY DOCKET FILE COPY



11718

DOCKET NO. 50-280

UNIT Surry Unit No. 1

DATE Nov. 2, 1976

COMPLETED BY E.P. DeWandel

AVERAGE DAILY UNIT POWER LEVEL

MONTH OCTOBER

DAY	AVERAGE DAILY POWER LEVEL (MWe-net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-net)
1	<u>433.2</u>	17	<u>387.1</u>
2	<u>734.4</u>	18	<u>0</u>
3	<u>718.4</u>	19	<u>0</u>
4	<u>751.7</u>	20	<u>0</u>
5	<u>726.8</u>	21	<u>0</u>
6	<u>741.1</u>	22	<u>0</u>
7	<u>741.3</u>	23	<u>0</u>
8	<u>733.5</u>	24	<u>0</u>
9	<u>743.2</u>	25	<u>0</u>
10	<u>746.5</u>	26	<u>0</u>
11	<u>747.0</u>	27	<u>0</u>
12	<u>747.7</u>	28	<u>0</u>
13	<u>747.3</u>	29	<u>0</u>
14	<u>747.4</u>	30	<u>0</u>
15	<u>754.6</u>	31	<u>0</u>
16	<u>754.2</u>		

DAILY UNIT POWER LEVEL FORM INSTRUCTIONS

On this form, list the average daily unit power level in MWe-net for each day in the reporting month. Compute to the nearest whole megawatt.

These figures will be used to plot a graph for each reporting month. Note that by using maximum dependable capacity for the net electrical rating of the unit, there may be occasions when the daily average power level exceeds the 100% line (or the restricted power level line). In such cases, the average daily unit power output sheet should be footnoted to explain the apparent anomaly.

UNIT Surry Unit No. 1

DATE Nov. 2, 1976

COMPLETED BY E.P. DeWandel

DOCKET NO. 50-280

OPERATING STATUS

1. REPORTING PERIOD: 001 761001 THROUGH 2400 761031
HOURS IN REPORTING PERIOD: 745
2. CURRENTLY AUTHORIZED POWER LEVEL (MWth) 2441 MAX. DEPENDABLE CAPACITY (MWe-NET) 788
3. LOWEST POWER LEVEL TO WHICH SPECIFICALLY RESTRICTED (IF ANY) (MWe-NET): _____
4. REASONS FOR RESTRICTION (IF ANY): _____

	THIS REPORTING PERIOD	YR TO DATE	CUMULATIVE TO DATE
5. HOURS REACTOR WAS CRITICAL	<u>399.4</u>	<u>6,058.0</u>	<u>22,554.4</u>
6. REACTOR RESERVE SHUTDOWN HOURS	<u>0</u>	<u>0</u>	<u>0</u>
7. HOURS GENERATOR ON LINE	<u>393.9</u>	<u>6,013.7</u>	<u>21,858.2</u>
8. UNIT RESERVE SHUTDOWN HOURS	<u>0</u>	<u>0</u>	<u>0</u>
9. GROSS THERMAL ENERGY GENERATED (MWH)	<u>936,226</u>	<u>14,305,668</u>	<u>49,088,356</u>
10. GROSS ELECTRICAL ENERGY GENERATED (MWH)	<u>302,325</u>	<u>4,626,820</u>	<u>16,078,363</u>
11. NET ELECTRICAL ENERGY GENERATED (MWH)	<u>286,925</u>	<u>4,396,885</u>	<u>15,243,765</u>
12. REACTOR AVAILABILITY FACTOR (1)	<u>53.6%</u>	<u>82.8%</u>	<u>66.7%</u>
13. UNIT AVAILABILITY FACTOR (2)	<u>52.9%</u>	<u>82.2%</u>	<u>64.6%</u>
14. UNIT CAPACITY FACTOR (3)	<u>48.9%</u>	<u>76.2%</u>	<u>57.2%</u>
15. UNIT FORCED OUTAGE RATE (4)	<u>1.1%</u>	<u>13.8%</u>	<u>22.1%</u>
16. SHUTDOWNS SCHEDULED TO BEGIN IN NEXT 6 MONTHS (STATE TYPE, DATE, AND DURATION OF EACH):	_____		

17. IF SHUT DOWN AT END OF REPORT PERIOD, ESTIMATED DATE OF STARTUP: December 1, 1976

18. UNITS IN TEST STATUS (PRIOR TO COMMERCIAL OPERATION) REPORT THE FOLLOWING:

	DATE LAST FORECAST	DATE ACHIEVED
INITIAL CRITICALITY	_____	_____
INITIAL ELECTRICAL POWER GENERATION	_____	_____
COMMERCIAL OPERATION	_____	_____

- (1) REACTOR AVAILABILITY FACTOR = $\frac{\text{HOURS REACTOR WAS CRITICAL}}{\text{HOURS IN REPORTING PERIOD}} \times 100$
- (2) UNIT AVAILABILITY FACTOR = $\frac{\text{HOURS GENERATOR ON LINE}}{\text{HOURS IN REPORTING PERIOD}} \times 100$
- (3) UNIT CAPACITY FACTOR = $\frac{\text{NET ELECTRICAL POWER GENERATED}}{\text{MAX. DEPENDABLE CAPACITY (MWe-NET)} \times \text{HOURS IN REPORTING PERIOD}}$
- (4) UNIT FORCED OUTAGE RATE = $\frac{\text{FORCED OUTAGE HOURS}}{\text{HOURS GENERATOR ON LINE} + \text{FORCED OUTAGE HOURS}} \times 100$

UNIT SHUTDOWNS

DOCKET NO. 50-280

UNIT NAME Surry Unit No. 1

DATE Nov. 2, 1976

COMPLETED BY E.P. DeWandel

REPORT MONTH OCTOBER

NO.	DATE	TYPE F-FORCED S-SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR (2)	CORRECTIVE ACTIONS/COMMENTS
76-13	100176	F	4.3	A&H	1&3	A-Primary-to-secondary leakage in steam generator H-Automatic trip during shutdown due to feed control system sensitivity Plugged leaking tubes in "C" steam generator NOTE: Unit was down at end of last reporting period.
76-14	101776	S	346.8	C	1	Refueling

- | | |
|--|-------------|
| (1) REASON | (2) METHOD |
| A-EQUIPMENT FAILURE (EXPLAIN) | 1-MANUAL |
| B-MAINT. OR TEST | 2-MANUAL |
| C-REFUELING | SCRAM |
| D-REGULATORY RESTRICTION | 3-AUTOMATIC |
| E-OPERATOR TRAINING AND
LICENSE EXAMINATION | SCRAM |
| F-ADMINISTRATIVE | |
| G-OPERATIONAL ERROR
(EXPLAIN) | |
| H-OTHER (EXPLAIN) | |

SUMMARY:

DOCKET NO. 50-281

UNIT Surry Unit No. 2

DATE Nov. 2, 1976

COMPLETED BY E.P. DeWandel

AVERAGE DAILY UNIT POWER LEVEL

MONTH OCTOBER

DAY	AVERAGE DAILY POWER LEVEL (MWe-net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-net)
1	<u>0</u>	17	<u>0</u>
2	<u>0</u>	18	<u>0</u>
3	<u>0</u>	19	<u>0</u>
4	<u>0</u>	20	<u>0</u>
5	<u>0</u>	21	<u>0</u>
6	<u>0</u>	22	<u>0</u>
7	<u>0</u>	23	<u>0</u>
8	<u>0</u>	24	<u>0</u>
9	<u>0</u>	25	<u>0</u>
10	<u>0</u>	26	<u>0</u>
11	<u>0</u>	27	<u>0</u>
12	<u>0</u>	28	<u>0</u>
13	<u>0</u>	29	<u>0</u>
14	<u>0</u>	30	<u>0</u>
15	<u>0</u>	31	<u>0</u>
16	<u>0</u>		

DAILY UNIT POWER LEVEL FORM INSTRUCTIONS

On this form, list the average daily unit power level in MWe-net for each day in the reporting month. Compute to the nearest whole megawatt.

These figures will be used to plot a graph for each reporting month. Note that by using maximum dependable capacity for the net electrical rating of the unit, there may be occasions when the daily average power level exceeds the 100% line (or the restricted power level line). In such cases, the average daily unit power output sheet should be footnoted to explain the apparent anomaly.

UNIT Surry Unit No. 2

DATE Nov. 2, 1976

COMPLETED BY E.P. DeWandel

DOCKET NO. 50-281

OPERATING STATUS

1. REPORTING PERIOD: 001 761001 THROUGH 2400 761031
HOURS IN REPORTING PERIOD: 745
2. CURRENTLY AUTHORIZED POWER LEVEL (MWh) 2441 MAX. DEPENDABLE CAPACITY (MWe-NET) 788
3. LOWEST POWER LEVEL TO WHICH SPECIFICALLY RESTRICTED (IF ANY) (MWe-NET): _____
4. REASONS FOR RESTRICTION (IF ANY): _____

	THIS REPORTING PERIOD	YR TO DATE	CUMULATIVE TO DATE
5. HOURS REACTOR WAS CRITICAL	<u>0</u>	<u>4,483.1</u>	<u>20,112.7</u>
6. REACTOR RESERVE SHUTDOWN HOURS	<u>0</u>	<u>0</u>	<u>0</u>
7. HOURS GENERATOR ON LINE	<u>0</u>	<u>4,393.5</u>	<u>19,748.0</u>
8. UNIT RESERVE SHUTDOWN HOURS	<u>0</u>	<u>0</u>	<u>0</u>
9. GROSS THERMAL ENERGY GENERATED (MWH)	<u>0</u>	<u>10,401,391</u>	<u>44,909,524</u>
10. GROSS ELECTRICAL ENERGY GENERATED (MWH)	<u>0</u>	<u>3,388,560</u>	<u>14,734,119</u>
11. NET ELECTRICAL ENERGY GENERATED (MWH)	<u>0</u>	<u>3,213,702</u>	<u>13,966,083</u>
12. REACTOR AVAILABILITY FACTOR (1)	<u>0</u>	<u>61.2%</u>	<u>65.5%</u>
13. UNIT AVAILABILITY FACTOR (2)	<u>0</u>	<u>60.0%</u>	<u>64.3%</u>
14. UNIT CAPACITY FACTOR (3)	<u>0</u>	<u>55.7%</u>	<u>57.7%</u>
15. UNIT FORCED OUTAGE RATE (4)	<u>100%</u>	<u>28.5%</u>	<u>22.1%</u>
16. SHUTDOWNS SCHEDULED TO BEGIN IN NEXT 6 MONTHS (STATE TYPE, DATE, AND DURATION OF EACH):			

17. IF SHUT DOWN AT END OF REPORT PERIOD, ESTIMATED DATE OF STARTUP: November 18, 1976

18. UNITS IN TEST STATUS (PRIOR TO COMMERCIAL OPERATION) REPORT THE FOLLOWING:

	DATE LAST FORECAST	DATE ACHIEVED
INITIAL CRITICALITY	_____	_____
INITIAL ELECTRICAL POWER GENERATION	_____	_____
COMMERCIAL OPERATION	_____	_____

- (1) REACTOR AVAILABILITY FACTOR = $\frac{\text{HOURS REACTOR WAS CRITICAL}}{\text{HOURS IN REPORTING PERIOD}} \times 100$
- (2) UNIT AVAILABILITY FACTOR = $\frac{\text{HOURS GENERATOR ON LINE}}{\text{HOURS IN REPORTING PERIOD}} \times 100$
- (3) UNIT CAPACITY FACTOR = $\frac{\text{NET ELECTRICAL POWER GENERATED}}{\text{MAX. DEPENDABLE CAPACITY (MWe-NET)} \times \text{HOURS IN REPORTING PERIOD}}$
- (4) UNIT FORCED OUTAGE RATE = $\frac{\text{FORCED OUTAGE HOURS}}{\text{HOURS GENERATOR ON LINE} + \text{FORCED OUTAGE HOURS}} \times 100$

UNIT SHUTDOWNS

DOCKET NO. 50-281

UNIT NAME Surry Unit No. 2

DATE Nov. 2, 1976

COMPLETED BY E.P. DeWandel

REPORT MONTH OCTOBER

NO.	DATE	TYPE F-FORCED S-SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR (2)	CORRECTIVE ACTIONS/COMMENTS
76-9	091576	F	745	A	2	<p>Excessive steam generator primary-to-secondary leakage.</p> <p>Extensive investigation of steam generator tubes.</p> <p>NOTE: Unit was down at end of last reporting period.</p> <p>(1) REASON A-EQUIPMENT FAILURE (EXPLAIN) B-MAINT. OR TEST C-REFUELING D-REGULATORY RESTRICTION E-OPERATOR TRAINING AND LICENSE EXAMINATION F-ADMINISTRATIVE G-OPERATIONAL ERROR (EXPLAIN) H-OTHER (EXPLAIN)</p> <p>(2) METHOD 1-MANUAL 2-MANUAL SCRAM 3-AUTOMATIC SCRAM</p>

SUMMARY: