

South Carolina Electric & Gas Company P.O. Box 88 Jenkinsville, SC 29065 (803) 345-4040 John L. Skolds Vice President Nuclear Operations

June 10, 1992

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

Attention: Director, Office of Resource Management

Gentlemen:

Subject: VIRGIL C. SUMMER NUCLEAR STATION

DOCKET NO. 50/395

OPERATING LICENSE NO. NPF-12 MAY MONTHLY OPERATING REPORT

Enclosed is the May 1992 Monthly Operating Report for the Virgil C. Summer Nuclear Station Unit No. 1. This submittal is made in accordance with the requirements of Technical Specifications, Section 6.9.1.10.

If there are any questions, please call me at your convenience.

Very truly yours,

John L. Skolds

JWH:RJB:1cd Attachments

c: O. W. Dixon

R. R. Mahan

R. J. White

S. D. Ebneter

G. F. Wunder

General Managers

G. J. Taylor

NRC Resident Inspector

J. B. Knotts Jr.

J. W. Flitter

F. Yost

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NUCLEAR EXCELLENCE - A SUMMER TRADITION!

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ATTACHMENT I AVERAGE DAILY UNIT POWER LEYEL

DOCKET NO. 50/395

UNIT V. C. SUMMER I

DATE 6/ 2/92

COMPLETED BY J. W. HALTIWANGER

TELEPHONE (803) 345-4297

MAY 1992 DAY AVERAGE DAILY POWER LEVEL DAY AVERAGE DAILY POWER LEVEL (MWe-Net) (MWe-Net) 1. 890 17. -24 2. 889 18. -37 890 3. 19. -37 889 20. -35 890 21. -35 6. 889 22. 50 890 7. 23. 521 889 24. 882 9. 890 25. 885 10. 890 26. 887 11. 867 27. 888 12. 22 28. 890 29. 13. -24 888 14. -16 30. 889 15. -15 31. 887 16. -17

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ATTACHMENT II OPERATING DATA REPORT

DOCKET NO. 50/395

UNIT V. C. SUMMER I

DATE 6/ 2/92

COMPLETED BY J. W. HALTIWANGER
TELEPHONE (903) 345-4297

OPERATING STATUS

| 1 | e. | Reporting Period: | May | 1992 | |
|---|----|---------------------------|----------------|------------|-----|
| | | Gross Hours in Reporting | Period: | 744 | |
| 2 | | Currently Authorized Powe | | 2775 | |
| | | Max. Depend. Capacity (MW | le-Net): | 885 | |
| | | Jesign Electrical Rating | (MWe-Net): | 900 | |
| 3 | | Power Level to Which Rest | sicted (If Any | (MWe-Net): | N/A |
| 4 | × | Reasons for Restrictions: | N/A | | |

THIS MONTH YR TO DATE CUMULATIVE

5. Number of Hours Reactor Critical 513.1 3416.1 58040.7

6. Reactor Reserve Shutdown Hours 0.0 0.0 0.0

| - A - 4 | Number of monts Membros Cilcicat | 343.4 | 3470'7 | 20040.7 |
|---------|---------------------------------------|---------|---------|-----------|
| 6. | Reactor Reserve Shutdown Hours | 0.0 | 0.0 | 0.0 |
| 7. | Hours Generator on Line | 492.6 | 3395.6 | 56883.3 |
| 8. | Unit Reserve Shutdown Hours | 0.0 | 0.0 | 0.0 |
| 9. | Gross Thermal Energy Generated (MWH) | 1314957 | 9252816 | 147821583 |
| 10. | Gross Electrical Energy(MWH) | 438430 | 3099000 | 48984399 |
| 11. | Net Electrical Energy Generated (MWH) | 413060 | 2965347 | 46512629 |
| 12. | Reactor Service Factor | 69.0 | 93.7 | 78.7 |
| 13. | Reactor Availability Factor | 69.0 | 93.7 | 78.7 |
| 14. | Unit Service Factor | £6.2 | 93.1 | 77.1 |
| 15. | Unit Availability Factor | 66.2 | 93.1 | 77.1 |
| 16. | Unit Capacity Factor (Using MDC) | 62.7 | 91. | 71.2 |
| 17. | Unit Capacity Factor (Design MWe) | 61.7 | 90.3 | 70.1 |
| | Unit Forced Outage Rate | 0.0 | 0.0 | 6.4 |
| | | | | |

- 19. Shutdowns Scheduled Over Next 6 Months(Type, Date & Duration of Each): NONE
- 20. If Shut Down at End of Report Period, Estimated Date of Startup: N/A
- 21. Units in Test Status (Prior to Commercial Operation): N/A

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ATTACHMENT III UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50/395

UNIT V. C. SUMMER I
DATE 6/2/92

COMPLETED 8Y J. W. HALTIWANGER
TELEPFONE (803) 345-4297

MAY 1992

NO. DATE TYPE DURATION REASON NETHOD CORRECTIVE ACTION/COMMENTS
2 920512 S 251.4 A 1 REPAIR S/G MANWAY STEAM LEAK

1.0 REASON

- A: Equipment Failure
- B: Maintenance or Test
- C: Refueling
- D: Regulatory Restriction
- E: Operator Training and License Examination
- F: Administrative
- G: Operational Error
- H: Other (Explain)

2.0 METHOD

- 1: Manual
- 2: Manual Scram
- 3: Automatic Scram
- 4: Continuation (Use initial Date)
- 5: Power Reduction (Duration 0.0)
- 9. Other (Explain)

Director, Office of Resource Management May Monthly Operating Report Page 4 ATTACHMENT IV NARRATIVE SUMMARY OF OPERATING EXPERIENCE DOCKET NO. 50/395 UNIT V. C. SUMMER DATE 06/02/92 COMPLETED BY J. W. HALTIWANGER TELEPHONE (803) 345-4297 MAY 1992 Virgil C. Summer Nuclear Station operated at approximately 100% power for the first 10 days of May. Power was reduced on May 11 to repair a secondary steam leak on a "B" steam

Power was reduced on May 11 to repair a secondary steam leak on a "B" steam generator manway. The main generator breaker was opened at 0418 on May 12, Mode 3 was entered at 0600. The plant was cooled down to Mode 5. During this shutdown, several moisture separator reheater tubes were plugged.

On May 20 at 0415 hours, the plant entered Mode 2. During troubleshooting of a power range drawer, the power to an intermediate range channel sharing a common power supply was momentarily interrupted. The reactor tripped from approximately 3% power.

On May 21 at 0008 hours, the plant again entered Mode 2. In preparation for connecting the generator to the grid, with feedwater (FW) temperature at 250°F and decreasing, reactor power was increased to approximately 30% with the steam dump to the condenser in order to maintain FW flow above the minimum 13% FW isolation setpoint (FW isolation occurs when FW temperature is less than 225°F with flow less than 13%). While the turbine was rolling up, the main steam power operated relief valves (PORV) cycled open and closed several times due to main steam system overpressure. As a result of the PORV oscillations, FW flow to "C" SG decreased below 13%, and before it recovered to greater than the 17% low flow reset, FW temperature dropped below 225°F causing FW isolation to "C" SG. An attempt to reduce power to shift FW to the SG to EFW system was made but "C" SG level fell below the lo SG level reactor trip setpoint before this could be accomplished, and a reactor trip occurred from 9% power. Subsequent testing revealed that the main condenser dump valves were not opening fully; the valve controls were repaired.

On May 22 at 0947 hours, the reactor was taken critical. The main generator breaker was closed at 1542 hours that day.

The plant operated at approximately 100% power from May 24 through the end of the month.

MISCELLANEOUS OPERATING STATISTICS THRU May 1992 VIRGIL C SUMMER NUCLEAR STATION, UNIT 1

OPERATING STATUS

Currently Authorized Power Level (MWt): Max. Depend. Capacity (MWe-Net): Design Electrical Rating (MWe-Net): 885 900 Gross Maximum Capacity (MWe): 930 Gross Dependable Capacity (MWe): 921

| | OF PLANT | FISCAL YEAR TO DATE | 12 MONTH TOTALS | 3 MONTH TOTALS |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|------------------------|--------------------|-------------------|
| | | ******** | *********** | |
| Number of Hours Reactor Critical Reactor Reserve Shutdown Hours | 65373.5 | 6504.7 | 7224.7 | 1976.1 |
| Hours Generator on Line | 63882.7 | 6313.3 | 7033.3 | 1255.6 |
| Unit Reserve Shutdown Hours | 0.0 | 0.0 | | |
| Gross Thermal Energy Generated (MWH) | 162432113 | 16915547 | 18888872 | 5284513 |
| Gross Electrical Energy(MWH) | 53764909 | 5661400 | 6323190 | 1766380 |
| Net Electrical Energy Generated (MWH) | 51005355 | 5396943 | 6032099 | 1686935 |
| Reactor Service Factor | 78.2 | 80.7 | | |
| Reactor Availability Factor | 78.2 | 80.7 | | |
| Unit Service Factor | 76.4 | 78.3 | | |
| Unit Availability Factor | 76.4 | 78.3 | 80.1 | 88.6 |
| Unit Capacity Factor (Using MDC) | 68.9 | 75.6 | 77.6 | 86.4 |
| Unit Capacity Factor (Design MWe) | 67.8 | 74.4 | | |
| Unit Forced Outage Rate Forced Outage Hours | 6.7 | 0.8 | 0.7 | |
| Scheduled Outage Hours | 4567.3 | 50.8 | 50.8 | 0.0 |
| Equipment Forced Outages: | 15167.0 | 1699.9 | 1699.9 | 251.4 |
| Equivalent Unit Derated Hours* | | | 2 | 0 |
| Equivalent Seasonal Derated Hours* | | | 478.29 | 302.10 |
| Equivalent Availability Factor* | | | 41.99 | 11,73 |
| additioner wight until the Lactor. | | | 74.1 | 74.4 |
| Manufacture Association and the second secon | | | | |

Equivalent Unit Derated Hours* for Month: 270.1

Equivalent Seasonal Derated Hours* for Month:

Equivalent Availability Factor* for Month: 29.3

Equivalent Availability Factor* for 36 months: 80.6

Year-to-Date Equivalent Availability Factor*: 84.3

Equipment Forced Outages per 1000 Critical Hours: 0.277 Equipment Forced Outages Year-to-Date: 0

Total Forced Outages Year-to-Date:

^{*} Based on INPO Detailed Descriptions of Overall Performance Indicators and Other Indicators - December 1987