

VIRGINIA ELECTRIC AND POWER COMPANY

SURRY POWER STATION

MONTHLY OPERATING REPORT

REPORT 88-09

APPROVED: David L. Benson
STATION MANAGER

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OPERATING DATA REPORT

DOCKET NO. 50-280
 DATE 10/4/88
 COMPLETED BY L. A. Warren
 TELEPHONE 804-357-3184

OPERATING STATUS

1. Unit Name: Surry Unit # 1
2. Reporting Period: September 01-30, 1988
3. Licensed Thermal Power (Mwt): 2441
4. Nameplate Rating (Gross MWe): 847.5
5. Design Electrical Rating (Net MWe): 788
6. Maximum Dependable Capacity (Gross MWe): 820
7. Maximum Dependable Capacity (Net MWe): 781
8. If Changes Occur in Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reasons: _____

Notes

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 | <u>720.0</u> | <u>6575.0</u> | <u>138287.0</u> |
| 12. Number of Hours Reactor Was Critical | <u>318.2</u> | <u>3755.2</u> | <u>88478.6</u> |
| 13. Reactor Reserve Shutdown Hours | <u>0.0</u> | <u>0.0</u> | <u>3774.5</u> |
| 14. Hours Generator On-Line | <u>317.6</u> | <u>3634.2</u> | <u>86605.4</u> |
| 15. Unit Reserve Shutdown Hours | <u>0.0</u> | <u>0.0</u> | <u>3736.2</u> |
| 16. Gross Thermal Energy Generated (MWH) | <u>768846.7</u> | <u>8451045.6</u> | <u>201171267.0</u> |
| 17. Gross Electrical Energy Generated (MWH) | <u>254940.0</u> | <u>2828500.0</u> | <u>65203673.0</u> |
| 18. Net Electrical Energy Generated (MWH) | <u>242041.0</u> | <u>2685027.0</u> | <u>61840403.0</u> |
| 19. Unit Service Factor | <u>44.1%</u> | <u>55.3%</u> | <u>62.6%</u> |
| 20. Unit Available Factor | <u>44.1%</u> | <u>55.3%</u> | <u>65.3%</u> |
| 21. Unit Capacity Factor (Using MDC Net) | <u>43%</u> | <u>52.3%</u> | <u>57.8%</u> |
| 22. Unit Capacity Factor (Using DER Net) | <u>42.7%</u> | <u>51.8%</u> | <u>56.7%</u> |
| 23. Unit Forced Rate | <u>55.9%</u> | <u>12.9%</u> | <u>17.4%</u> |

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):
Forced Maintenance Outage on 09/13/88 to 11/18/88

25. If Shut Down At End Of Report Period Estimated Date of Startup: _____

| 26. Units In Test Status (Prior to Commercial Operation): | Forecast | Achieved |
|---|----------|----------|
| INITIAL CRITICALITY | _____ | _____ |
| INITIAL ELECTRICITY | _____ | _____ |
| COMMERCIAL OPERATION | _____ | _____ |

OPERATING DATA REPORT

DOCKET NO. 50-281
 DATE 10/4/88
 COMPLETED BY L. A. Warren
 TELEPHONE 804-357-3184

OPERATING STATUS

1. Unit Name: Surry Unit # 2
2. Reporting Period: September 01-30, 1988
3. Licensed Thermal Power (Mwt): 2441
4. Nameplate Rating (Gross MWe): 847.5
5. Design Electrical Rating (Net MWe): 788
6. Maximum Dependable Capacity (Gross MWe): 820
7. Maximum Dependable Capacity (Net MWe): 781
8. If Changes Occur in Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reasons: _____

| | |
|-------|--|
| Notes | |
|-------|--|

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 | 720.0 | 6575.0 | 135167.0 |
| 12. Number of Hours Reactor Was Critical | 218.0 | 5028.3 | 89694.3 |
| 13. Reactor Reserve Shutdown Hours | 0.0 | 0.0 | 328.1 |
| 14. Hours Generator On-Line | 218.0 | 4994.7 | 88293.0 |
| 15. Unit Reserve Shutdown Hours | 0.0 | 0.0 | 0.0 |
| 16. Gross Thermal Energy Generated (MWH) | 376719.4 | 11570100.4 | 206740463.1 |
| 17. Gross Electrical Energy Generated (MWH) | 114285.0 | 3763420.0 | 67136244.0 |
| 18. Net Electrical Energy Generated (MWH) | 106075.0 | 3570901.0 | 63647378.0 |
| 19. Unit Service Factor | 30.3% | 76% | 65% |
| 20. Unit Available Factor | 30.3% | 76% | 65% |
| 21. Unit Capacity Factor (Using MDC Net) | 18.9% | 69.5% | 60.4% |
| 22. Unit Capacity Factor (Using DER Net) | 18.7% | 68.9% | 59.8% |
| 23. Unit Forced Rate | 69.7% | 24% | 15% |

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):
Refueling Outage 09/09/88 to 12/02/88

25. If Shut Down At End Of Report Period Estimated Date of Startup: _____

| 26. Units In Test Status (Prior to Commercial Operation): | Forecast | Achieved |
|---|----------|----------|
| INITIAL CRITICALITY | _____ | _____ |
| INITIAL ELECTRICITY | _____ | _____ |
| COMMERCIAL OPERATION | _____ | _____ |

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-280
 UNIT NAME Surry Unit # 1
 DATE 10/04/88
 COMPLETED BY L. A. Warren
 TELEPHONE 804-357-3184

REPORT MONTH September 1988

| NO. | DATE | Type ¹ | Duration (Hours) | Reason ² | Method of Shutting Down Reactor ³ | LICENSEE EVENT REPORT # | System Code ⁴ | Component Code ⁵ | CAUSE & CORRECTIVE ACTION TO PREVENT RECURRENCE |
|-------|----------|-------------------|------------------|---------------------|--|--|--------------------------|-----------------------------|---|
| 88-10 | 09/07/88 | F | 0.0 | A | 1 | | | | Unit reduced to 87% 720 MWE to repair isolated phase bus duct grounding straps. |
| 88-11 | 09/13/88 | F | 402.4 | F | 1 | LER-280/ 88-032 LER-280/ 88-034 | | | Unit shutdown due to emergency diesel generator operability concerns. |

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 1 - Same Source

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-281
 UNIT NAME Surry Unit # 2
 DATE 10/04/88
 COMPLETED BY L. A. Warren
 TELEPHONE 804-357-3184

REPORT MONTH September 1988

| NO. | DATE | Type ¹ | Duration (Hours) | Reason ² | Method of Shutting Down Reactor ³ | LICENSEE EVENT REPORT # | System Code ⁴ | Component Code ⁵ | CAUSE & CORRECTIVE ACTION TO PREVENT RECURRENCE |
|-------|----------|-------------------|------------------|---------------------|--|-------------------------|--------------------------|-----------------------------|--|
| 88-19 | 09-09-88 | S | 502.0 | C | 1, 3 | LER-281/ 88-022 | | | Unit shutdown for refueling outage . Automatic Reactor trip at 4% reactor power. |

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 1 - Same Source

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-280
 UNIT Surry Unit # 1
 DATE 10/04/88
 COMPLETED BY L. A. Warren
 TELEPHONE 804-357-3184

MONTH September 1988

| DAY | AVERAGE DAILY POWER LEVEL (MWe-Net) | DAY | AVERAGE DAILY POWER LEVEL (MWe-Net) |
|-----|--|-----|--|
| 1 | <u>769</u> | 17 | <u>0</u> |
| 2 | <u>769</u> | 18 | <u>0</u> |
| 3 | <u>769</u> | 19 | <u>0</u> |
| 4 | <u>769</u> | 20 | <u>0</u> |
| 5 | <u>770</u> | 21 | <u>0</u> |
| 6 | <u>772</u> | 22 | <u>0</u> |
| 7 | <u>765</u> | 23 | <u>0</u> |
| 8 | <u>775</u> | 24 | <u>0</u> |
| 9 | <u>774</u> | 25 | <u>0</u> |
| 10 | <u>772</u> | 26 | <u>0</u> |
| 11 | <u>768</u> | 27 | <u>0</u> |
| 12 | <u>769</u> | 28 | <u>0</u> |
| 13 | <u>770</u> | 29 | <u>0</u> |
| 14 | <u>329</u> | 30 | <u>0</u> |
| 15 | <u>0</u> | 31 | <u>0</u> |
| 16 | <u>0</u> | | |

INSTRUCTIONS

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

(9/77)

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-281
 UNIT Surry Unit # 2
 DATE 10/04/88
 COMPLETED BY L. A. Warren
 TELEPHONE 804-357-3184

MONTH September 1988

| DAY | AVERAGE DAILY POWER LEVEL (MWe-Net) | DAY | AVERAGE DAILY POWER LEVEL (MWe-Net) |
|-----|--|-----|--|
| 1 | <u>509</u> | 17 | <u>0</u> |
| 2 | <u>519</u> | 18 | <u>0</u> |
| 3 | <u>507</u> | 19 | <u>0</u> |
| 4 | <u>497</u> | 20 | <u>0</u> |
| 5 | <u>490</u> | 21 | <u>0</u> |
| 6 | <u>491</u> | 22 | <u>0</u> |
| 7 | <u>489</u> | 23 | <u>0</u> |
| 8 | <u>464</u> | 24 | <u>0</u> |
| 9 | <u>444</u> | 25 | <u>0</u> |
| 10 | <u>119</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> | | |

INSTRUCTIONS

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

(9/77)

SUMMARY OF OPERATING EXPERIENCE**MONTH/YEAR SEPTEMBER 1988**

Listed below in chronological sequence by unit is a summary of operating experiences for this month which required load reductions or resulted in significant non-load related incidents.

UNIT ONE

| | | |
|----------|------|--|
| 09-01-88 | 0000 | This reporting period begins with the unit at 100% 805 MWE. |
| 09-07-88 | 1513 | Commenced power reduction at 150 MW/hr to permit repairs to isolated phase bus duct grounding straps. |
| | 1550 | Holding power at 87% 720 MWE. |
| | 1712 | Commenced power increase at 150 MWE/hr. |
| | 1803 | Unit at 100% 805 MW. |
| 09-13-88 | 2341 | Commenced power reduction at 150 MW/hr for unit shutdown due to Emergency Diesel Generator operability concerns. Entered Emergency Plan, NOUE. |
| 09-14-88 | 0536 | Unit off the line. |
| | 0610 | Performed manual reactor trip. |
| 09-15-88 | 0552 | Unit at CSD, secured from Emergency Plan, NOUE. |
| 09-30-88 | 2400 | This reporting period ends with the unit at CSD. |

UNIT TWO

| | | |
|----------|------|---|
| 09-01-88 | 0000 | This reporting period begins with the unit at 70% 490 MWE due to 3B feedwater heater being out of service, 'C' waterbox removed from service and EOL coastdown in progress. |
| | 0536 | Commenced power increase at 1%/hr. |
| | 0800 | Holding power at 72% 545 MWE. |
| 09-09-88 | 2147 | Commenced power reduction at 150 MW/hr for unit shutdown for refueling outage. |
| 09-10-88 | 0154 | Unit off the line. |
| | 0158 | Reactor trip due to turbine trip from first stage impulse pressure spike at 4% reactor power. |
| 09-11-88 | 0425 | Unit at CSD. |
| 09-30-88 | 2400 | This reporting period ends with the unit at CSD for refueling outage. |

FACILITY CHANGES REQUIRING NRC APPROVAL
MONTH/YEAR SEPTEMBER 1988

NONE DURING THIS PERIOD

FACILITY CHANGES THAT DID NOT REQUIRE NRC APPROVAL
MONTH/YEAR SEPTEMBER 1988

SCAFFOLD REQUEST

09/02/88

Erection of temporary scaffolding located in Unit 2 safeguards to work NRV-MS-201A/B/C.

Installation of this temporary scaffolding was reviewed for effect on accident analyses and equipment operability/function. Conclusion is that assumptions, bases and probabilities of accident analyses and equipment malfunctions are not affected.

SCAFFOLD REQUEST

09/06/88

Erection of temporary scaffolding located in the Unit 1 Turbine Building Basement to work piping for bowser.

Installation of this temporary scaffolding was reviewed for effect on accident analyses and equipment operability/function. Conclusion is that assumptions, bases and probabilities of accident analyses and equipment malfunctions are not affected.

AC S2-88-0906 ADMINISTRATIVE CONTROL

09/06/88

Administrative control will be maintained while the charging pump component cooling pump drain valve is open to feed and to bleed the system to increase chromate concentration; an operator will be stationed at the drain valve to close it immediately should the head tank level drop to $\leq 30\%$.

Feeding and bleeding the charging pump component cooling system by opening its pump's drain valve will not affect the operability of the charging system. It will enhance corrosion control by the addition of chromates. Therefore, this change does not constitute an unreviewed safety question.

SCAFFOLD REQUEST

09/08/88

Erection of temporary scaffolding located in Unit 2 Safeguards to work ISI Inspections for NDE.

Installation of this temporary scaffolding was reviewed for effect on accident analyses and equipment operability/function. Conclusion is that assumptions, bases and probabilities of accident analyses and equipment malfunctions are not affected.

FACILITY CHANGES THAT DID NOT REQUIRE NRC APPROVAL
MONTH/YEAR SEPTEMBER 1988

TM S2-88-069 TEMPORARY MODIFICATION 09/09/88

This modification removed check valve internals from 2-BD-558 and installed adapter and jumper hose to Condensate Polishing waste neutralization or low conductivity sumps.

The steam generators will be at atmospheric pressure during implementation of this jumper. Therefore, the probability of a steam generator tube rupture is not credible. If leakage on the jumper should occur, the release can be terminated immediately by securing the R & T pump. Therefore, no unreviewed safety question exists.

AC S1-88-0911 ADMINISTRATIVE CONTROL 09/10/88

Administrative control will be maintained at the emergency switchgear room door while it is temporarily removed by establishing flood watch at the door and turbine building pit areas. The dike will be reinstalled in the event of a flood.

The removal of this dike will not adversely affect any safety related equipment, therefore does not create an unreviewed safety question.

AC S2-88-0909 ADMINISTRATIVE CONTROL 09/10/88

Valve 2-CC-104, manual isolation valve downstream of TV-CC-209A will be used while under administrative control in accordance with SUADM-0-026 to ensure containment integrity.

Administrative control of 2-CC-104 does not constitute an unreviewed safety question, since it will ensure that containment integrity is maintained.

SCAFFOLD REQUEST 09/12/88

Erection of temporary scaffolding located in Unit 2 Safeguards to work DC-86-14 in the vicinity of Auxiliary Feedwater pumps.

Installation of this temporary scaffolding was reviewed for effect on accident analyses and equipment operability/function. Conclusion is that assumptions, bases and probabilities of accident analyses and equipment malfunctions are not affected. Scaffolding was removed before exceeding 350°, 450 psig in reactor coolant system.

SCAFFOLD REQUEST 09/12/88

Erection of temporary scaffolding located in Auxiliary Building 2' level 'A' charging pump cubicle to work MOVATS testing.

Installation of this temporary scaffolding was reviewed for effect on accident analyses and equipment operability/function. Conclusion is that assumptions, bases and probabilities of accident analyses and equipment malfunctions are not affected.

FACILITY CHANGES THAT DID NOT REQUIRE NRC APPROVAL
MONTH/YEAR SEPTEMBER 1988

SCAFFOLD REQUEST

09/12/88

Erection of temporary scaffolding located in Auxiliary Building 2' level 'B' charging pump cubicle to work MOV tests and inspection.

Installation of this temporary scaffolding was reviewed for effect on accident analyses and equipment operability/function. Conclusion is that assumptions, bases and probabilities of accident analyses and equipment malfunctions are not affected.

SCAFFOLD REQUEST

09/12/88

Erection of temporary scaffolding located in Unit 2 Containment Basement to work ISI Inspections for NDE in vicinity of RHR, SI and CH piping and components.

Installation of this temporary scaffolding was reviewed for effect on accident analyses and equipment operability/function. Conclusion is that assumptions, bases and probabilities of accident analyses and equipment malfunctions are not affected. Scaffolding is to be removed prior to exceeding 200°F in Reactor Coolant System.

SCAFFOLD REQUEST

09/12/88

Erection of temporary scaffolding located in Unit 2 Containment 'B' loop room to work ISI inspection in the vicinity of RHR piping.

Installation of this temporary scaffolding was reviewed for effect on accident analyses and equipment operability/function. Conclusion is that assumptions, bases and probabilities of accident analyses and equipment malfunctions are not affected. Scaffolding to be removed before reactor coolant system exceeds 200°F.

SCAFFOLD REQUEST

09/12/88

Erection of temporary scaffolding located in Unit 2 Containment 3'6" elevation to work ISI inspections in vicinity of RHR suction piping from loop.

Installation of this temporary scaffolding was reviewed for effect on accident analyses and equipment operability/function. Conclusion is that assumptions, bases and probabilities of accident analyses and equipment malfunctions are not affected. Scaffolding will be removed prior to reactor coolant system > 200°F.

FACILITY CHANGES THAT DID NOT REQUIRE NRC APPROVAL
MONTH/YEAR SEPTEMBER 1988

SCAFFOLD REQUEST

09/12/88

Erection of temporary scaffolding located in Unit 2 containment to work ISI inspection in the vicinity of RHR piping.

Installation of this temporary scaffolding was reviewed for effect on accident analyses and equipment operability/function. Conclusion is that assumptions, bases and probabilities of accident analyses and equipment malfunctions are not affected. Scaffolding to be removed prior to reactor coolant system exceeding 200°F.

SCAFFOLD REQUEST

09/12/88

Erection of temporary scaffolding located in the Unit 2 containment RHR flats to work ISI inspections in the vicinity of both RHR pumps and associated piping.

Installation of this temporary scaffolding was reviewed for effect on accident analyses and equipment operability/function. Conclusion is that assumptions, bases and probabilities of accident analyses and equipment malfunctions are not affected. Scaffolding will be removed prior to reactor coolant system >200°F.

AC-S1-88-0912 ADMINISTRATIVE CONTROL

09/12/88

Administrative control is required to close the door between the emergency switchgear room and the turbine building when necessary. The door is blocked open to allow access for an exhaust duct for maintenance work.

The design basis accident was reviewed and it was determined that the emergency switchgear door will be closed by the dedicated continuous fire watch when the control room is required to be pressurized. Therefore, no unreviewed safety question exist.

TM-S2-88-075 TEMPORARY MODIFICATION

09/12/88

This change installed pressure gauges on 2-RH-38/39 and the suction lines for 2-RH-P-1A/1B while performing 2-PT-30.1.

Since the probability of the temporary fittings and/or gauges chance of failing is minimum, the bases, assumptions and probabilities of accident analyses and equipment malfunctions are not affected.

FACILITY CHANGES THAT DID NOT REQUIRE NRC APPROVAL
MONTH/YEAR

EWR-88-039 ENGINEERING WORK REQUEST 09/12/88

This request was to document that the auxiliary feedwater control switch lights (green, amber, red) would extinguish with the switch in "pull-to-lock" position. A white light (added above the red light) would illuminate when the pump breaker was in the "connected" position and the breaker closing control power was available.

The added white light enhances operator's awareness of the breaker status. Changing to lights extinguishing on "pull-to-lock" complies with human factors concerns. There is no other effect on plant operation. Therefore, no unreviewed safety question exists..

EWR-88-296 ENGINEERING WORK REQUEST 09/12/88

This request was to evaluate operation with the emergency diesel generators (EDG) main air intake louvers failed open.

This change does not affect the operation of the EDGs because the louvers are open while they are in operation. Leaving the louvers open will help to enhance air displacement (in the event of a fire) if the carbon dioxide system is actuated. Therefore, an unreviewed safety question does not exist.

TM-S1-88-136 TEMPORARY MODIFICATION 09/14/88

This change removed the check valve internals from 1-BD-558 and installed adaptor and jumper hose to condensate polishing waste neutralization or low conductivity sumps.

The steam generators will be at atmospheric pressure during implementation. The probability of a steam generator tube rupture is not credible. If leakage on the jumper should occur the release can be terminated immediately by securing the RT pump. Therefore no unreviewed safety question exists.

TM-S2-88-082 TEMPORARY MODIFICATION 09/19/88

This change installed a flexible hose from 2-DG-74 to 2-CH-443. In addition, valves MOV-2381, 2-DG-TV-208B, HCV-2522A/B/C and HCV-2523 were closed.

Installation of a hose allowing the primary drains tank to be pumped to the volume control tank was reviewed for effect on accident analyses and equipment operability/function. Conclusion is that assumptions, bases and probabilities of accident analyses and equipment malfunctions are not affected.

FACILITY CHANGES THAT DID NOT REQUIRE NRC APPROVAL
MONTH/YEAR SEPTEMBER 1988

- TM-S1-88-141 TEMPORARY MODIFICATION 09/19/88**
- This change installed pressure gauges on 1-RH-38/39 and the suction lines for 1-RH-P-1A/1B while performing 1-PT-30.1
- Since the probability of the temporary fittings and/or gauges chance of failing is minimum, the bases, assumptions and probabilities of accident analyses and equipment malfunctions are not affected.
- TM-S2-88-084 TEMPORARY MODIFICATION 09/22/88**
- This change blocked open the pressurizer power operated relief valves (PORVs) prior to initiation of maintenance to ensure that overpressure protection is available.
- Technical specification 3.1.G requires a relief path equivalent to one open PORV. This change ensures two relief paths, one through each PORV and therefore, provides adequate overpressure protection. No unreviewed safety question is created.
- TM-S2-88-087 TEMPORARY MODIFICATION 09/24/88**
- This change removed the PORVs for the pressurizer and a piece of one-eighth inch garlock gasket material will be placed over the PORVs flanges using four of the eight bolts to hand tighten. The gasket of material will not hold pressure but will keep dirt out of the pressurizer PORV lines.
- With the PORVs removed at cold shutdown, a pressure relief path is assured. The material placed over the valve flange will not interfere with the relief flow thru the lines. Therefore, no unreviewed safety question is created.
- TM-S2-88-088 TEMPORARY MODIFICATION 09/24/88**
- The safety valves for the pressurizer will be removed and a piece of one-eighth inch garlock gasket material will be placed over the three safety valve flanges using four of the eight bolts hand tightened. The gasket material will not hold pressure but will keep dirt out of the safety valve lines.
- With the safety valves removed at cold shutdown, a pressure relief path is assured. The material placed over the valve flange will not interfere with the relief flow thru the lines. Therefore, no unreviewed safety question is created.

FACILITY CHANGES THAT DID NOT REQUIRE NRC APPROVAL
MONTH/YEAR SEPTEMBER 1988

TM-S2-88-089 TEMPORARY MODIFICATION

09/25/88

This change was to defeat the automatic reactor trips by jumpering out relays affecting the closed reactor trip breakers. While the change is in effect all power to control and shutdown rods will be physically disconnected and the rods will be fully inserted.

While this temporary modification is in effect the reactor will remain at cold shutdown with all rods inserted and all sources of power to the rod drive mechanisms removed. Reactor trip breakers shall be opened each night upon completion of the work. No method exists for uncontrolled rod withdrawal with all power removed from rod drive mechanisms. Therefore, there is no possibility of this accident and an unreviewed safety question is not created.

PROCEDURE OR METHOD OF OPERATION CHANGES
THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR SEPTEMBER 1988

FS-88-055

FINAL SAFETY ANALYSIS REPORT

09/06/88

This revision to section 9.9 is a general revision to clarify and update the data within the UFSAR with present operational and design information.

This review determined that no unreviewed safety question exists since this revision has not altered the basic function of the affected systems.

EWR-88-319

ENGINEERING WORK REQUEST

09/12/88

This request justified the operation of Surry Unit 2 with RV-2209 in an untested condition per ASME XI.

No unreviewed safety question exists as calculations have been performed which show even if the relief valve does not lift and piping pressurization occurs. No unsafe malfunction of equipment will occur.

PROCEDURE OR METHOD OF OPERATION
THAT DID REQUIRE NRC APPROVAL

MONTH/YEAR SEPTEMBER 1988

NONE DURING THIS PERIOD

TESTS AND EXPERIMENTS REQUIRING NRC APPROVAL

MONTH/YEAR SEPTEMBER 1988

NONE DURING THIS PERIOD

TESTS AND EXPERIMENTS THAT DID NOT REQUIRE NRC APPROVALMONTH/YEAR SEPTEMBER 1988

2-ST-214

SPECIAL TEST

09/14/88

This change was to test the main steam safety valves at power using Furmanite Trevitest equipment.

During this test, valves will be tested individually and setpoints will be adjusted as necessary. The worst case scenario analyzed in the FSAR is for single valve failure full open. Since the valves-disks will only be lifted briefly and individually, an unreviewed safety question does not exist.

**VIRGINIA POWER
SURRY POWER STATION
CHEMISTRY REPORT**

SEPTEMBER 19 88

| PRIMARY COOLANT ANALYSIS | UNIT NO. 1 | | | UNIT NO. 2 | | |
|---|--------------------|---------|---------|------------|---------|---------|
| | MAX. | MIN. | AVG. | MAX. | MIN. | AVG. |
| Gross Radioact., $\mu\text{Ci/ml}$ | 1.07E ⁰ | 2.86E-2 | 1.92E-1 | 1.62E-1 | .00E-2 | 2.93E-2 |
| Suspended Solids, ppm | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Gross Tritium, $\mu\text{Ci/ml}$ | 2.89E-1 | 2.52E-1 | 2.71E-1 | 6.54E-2 | 6.54E-2 | 6.54E-2 |
| Iodine ¹³¹ , $\mu\text{Ci/ml}$ | 1.45E ⁰ | 3.75E-4 | 7.81E-2 | 2.56E-3 | 5.77E-5 | 3.82E-4 |
| I^{131} / I^{131} | 0.62 | 0.07 | 0.49 | 0.14 | 0.07 | 0.10 |
| Hydrogen, cc/kg | 30.0 | 3.6 | 11.2 | 31.0 | 3.7 | 20.7 |
| Lithium, ppm | 2.28 | 2.16 | 2.22 | 0.45 | 0.39 | 0.42 |
| Boron-10, ppm* | 366.1 | 177.6 | 273.0 | 387.0 | 0.5 | 204.3 |
| Oxygen, (DO), ppm | 3.0 | <0.005 | 1.1 | 4.0 | <0.005 | 1.7 |
| Chloride, ppm | 0.011 | 0.002 | 0.008 | 0.011 | 0.001 | 0.005 |
| pH @ 25 degree Celsius | 6.54 | 5.58 | 6.07 | 8.43 | 4.73 | 6.23 |

* Boron-10 = Total Boron X 0.196

UNIT 1: Started the month at 100%. On 9/3, normal sampling indicated a large increase in the iodine dose equivalent and the iodine ratio. On 9/7, the unit was ramped down 10% due to a problem with the main generator, but was back to 100% later that day. On 9/14, the unit was ramped down to cold shutdown. On 9/14 at 0720 the iodine dose equivalent was greater than 1.0 $\mu\text{Ci/ml}$ and stayed above 1.0 until 1605. The month ended at CSD. No LiOH was added. Hydrogen peroxide was added on 9/21 at 1140, 12L; 9/22 at 0305, 4L; 9/22 at 1345, 8L; 9/23 at 1415, 8L; 9/25 at 0425, 8L; 9/28 at 2115, 4L; 9/29 at 2300, 4L. Total of 48 liters (12 gallons).

UNIT 2: Started the month at 70%. On 9/9, started ramp down to CSD for maintenance/refueling outage. Flushed 'B' mixed bed and put in service on 9/12 at 2143. The effluent sodium concentration was too high and 'B' mixed bed was taken out of service on 9/13 at 0245. 'A' mixed bed was put back in service. 95 gms of LiOH was added on 9/3 at 2030. Hydrogen peroxide was added on 9/12 at 2305, 12L; 9/13 at 1450, 4L; 9/14 at 0100, 4L; 9/16 at 1510, 4L; 9/16 at 2300, 4L. Total 28 liters (7 gallons). On 9/25 at 2205, letdown flow through the mixed bed was taken out of service for maintenance. Ended the month in CSD/refueling.

CASTOR V/21 #009

UNIT 1

FUEL HANDLING

DATE SEPT. 1988

| NEW OR SPENT FUEL SHIPMENT # | DATE SHIPPED OR RECEIVED | NUMBER OF ASSEMBLIES PER SHIPMENT | ASSEMBLY # | ANSI # | INITIAL ENRICHMENT | NEW OR SPENT FUEL SHIPPING CASK ACTIVITY LEVEL |
|------------------------------|--------------------------|-----------------------------------|------------|--------|--------------------|--|
| N/A | N/A | N/A | P18 | N/A | 3.11 | N/A |
| N/A | N/A | N/A | P19 | N/A | 3.11 | N/A |
| N/A | N/A | N/A | P21 | N/A | 3.11 | N/A |
| N/A | N/A | N/A | P31 | N/A | 3.11 | N/A |
| N/A | N/A | N/A | P32 | N/A | 3.11 | N/A |
| N/A | N/A | N/A | P33 | N/A | 3.11 | N/A |
| N/A | N/A | N/A | P34 | N/A | 3.11 | N/A |
| N/A | N/A | N/A | P35 | N/A | 3.11 | N/A |
| N/A | N/A | N/A | P36 | N/A | 3.11 | N/A |
| N/A | N/A | N/A | P37 | N/A | 3.11 | N/A |
| N/A | N/A | N/A | P38 | N/A | 3.11 | N/A |
| N/A | N/A | N/A | P40 | N/A | 3.11 | N/A |
| N/A | N/A | N/A | P42 | N/A | 3.11 | N/A |
| N/A | N/A | N/A | P43 | N/A | 3.11 | N/A |
| N/A | N/A | N/A | P44 | N/A | 3.11 | N/A |
| N/A | N/A | N/A | P45 | N/A | 3.11 | N/A |
| N/A | N/A | N/A | P46 | N/A | 3.11 | N/A |
| N/A | N/A | N/A | P47 | N/A | 3.11 | N/A |
| N/A | N/A | N/A | P48 | N/A | 3.11 | N/A |
| N/A | N/A | N/A | P49 | N/A | 3.11 | N/A |
| N/A | N/A | N/A | P52 | N/A | 3.11 | N/A |
| | | | | | | |
| | | | | | | |
| | | | | | | |

CASK LOADED & TESTED BUT NOT SENT TO ISFSI

DESCRIPTION OF PERIODIC TEST WHICH WERE NOT COMPLETED
WITHIN THE TIME LIMITS SPECIFIED IN TECHNICAL SPECIFICATIONS

MONTH/YEAR SEPTEMBER 1988

NONE DURING THIS PERIOD

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

October 14, 1988

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D. C. 20555

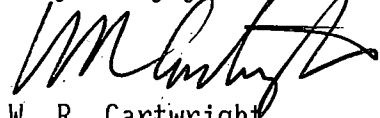
Serial No. 88-690
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50-281
License Nos. DPR-32
DPR-37

Gentlemen:

VIRGINIA ELECTRIC AND POWER COMPANY
SURRY POWER STATION UNITS 1 AND 2
MONTHLY OPERATING REPORT

Enclosed is the Monthly Operating Report for Surry Power Station Units 1 and 2 for the month of September 1988.

Very truly yours,



W. R. Cartwright
Vice President - Nuclear

Enclosure

cc: U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, N. W.
Suite 2900
Atlanta, Georgia 30323

Mr. W. E. Holland
NRC Senior Resident Inspector
Surry Power Station

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