

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

November 15, 1990

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

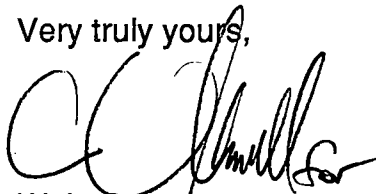
Serial No. 90-707
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Docket Nos. 50-280
50-281
License Nos. DPR-32
DPR-37

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 October 1990.

Very truly yours,



W. L. Stewart
Senior 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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VIRGINIA ELECTRIC AND POWER COMPANY

SURRY POWER STATION

MONTHLY OPERATING REPORT

REPORT # 90-10

APPROVED:

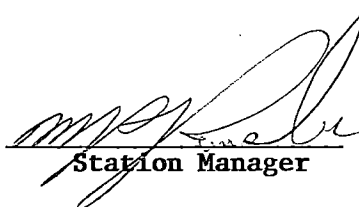

Station Manager

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OPERATING DATA REPORT

DOCKET NO.: 50-280
 DATE: 11/02/90
 COMPLETED BY: L.A. Warren
 TELEPHONE: (804)357-3184 x355

OPERATING STATUS

NOTES

1. Unit Name: Surry Unit 1
2. Reporting Period: Oct. 01-31, 1990
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: _____

9. Power Level To Which Restricted, If Any (Net MWe): _____
10. Reason For Restrictions, If Any: _____

	<u>THIS MONTH</u>	<u>YTD</u>	<u>CUMULATIVE</u>
11. Hours In Reporting Period	745.0	7296.0	156552.0
12. Number of Hours Reactor Was Critical	126.5	6387.2	99138.0
13. Reactor Reserve Shutdown Hours	0	0	3774.5
14. Hours Generator On-Line	126.5	6373.5	97196.7
15. Unit Reserve Shutdown Hours	0	0	3736.2
16. Gross Thermal Energy Generated (MWH)	170595.0	14488795.5	225605598.5
17. Gross Electrical Energy Generated (MWH)	53480.0	4826105.0	73371508.0
18. Net Electrical Energy Generated (MWH)	49084.0	4577151.0	69588081.0
19. Unit Service Factor	17%	87.4%	62.1%
20. Unit Availability Factor	17%	87.4%	64.5%
21. Unit Capacity Factor (Using MDC Net)	8.4%	80.3%	57.4%
22. Unit Capacity Factor (Using DER Net)	8.4%	79.6%	56.4%
23. Unit Forced Outage Rate	0%	4.6%	20.7%
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): <u>Refueling/Snubber Outage started 10/06/90, 60 days</u>			

25. If Shut Down at End of Report Period Estimated Date of Startup: 12/5/90
26. Unit In Test Status (Prior to Commercial Operation): FORECAST ACHIEVED

INITIAL CRITICALITY _____
 INITIAL ELECTRICITY _____
 COMMERCIAL OPERATION _____

OPERATING DATA REPORT

DOCKET NO.: 50-281
 DATE: 11/02/90
 COMPLETED BY: L.A. Warren
 TELEPHONE: (804)357-3184 x355

OPERATING STATUS

NOTES

1. Unit Name: Surry Unit 2
2. Reporting Period: Oct. 01-31, 1990
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: _____

9. Power Level To Which Restricted, If Any (Net MWe): _____
10. Reason For Restrictions, If Any: _____

	<u>THIS MONTH</u>	<u>YTD</u>	<u>CUMULATIVE</u>
11. Hours In Reporting Period	745.0	7296.0	153432.0
12. Number of Hours Reactor Was Critical	533.7	6908.9	98107.5
13. Reactor Reserve Shutdown Hours	0	0	328.1
14. Hours Generator On-Line	533.7	6891.4	96540.3
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	1295643.7	16465261.1	226075595.9
17. Gross Electrical Energy Generated (MWH)	431965.0	5467200.0	73547799.0
18. Net Electrical Energy Generated (MWH)	410853.0	5194575.0	69735534.0
19. Unit Service Factor	71.6%	94.5%	62.9%
20. Unit Availability Factor	71.6%	94.5%	62.9%
21. Unit Capacity Factor (Using MDC Net)	70.6%	91.2%	58.3%
22. Unit Capacity Factor (Using DER Net)	70%	90.4%	57.7%
23. Unit Forced Outage Rate	28.4%	5.5%	15.1%
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): Refueling/4-5-91/60 days			

25. If Shut Down at End of Report Period Estimated Date of Startup: 11/17/90
26. Unit In Test Status (Prior to Commercial Operation): FORECAST ACHIEVED

INITIAL CRITICALITY _____
 INITIAL ELECTRICITY _____
 COMMERCIAL OPERATION _____

UNIT SHUTDOWN AND POWER REDUCTION
(Equal To or Greater Than 20%)

REPORT MONTH: OCTOBER 1990

DOCKET NO.: 50-280

UNIT NAME: Surry Unit 1.

DATE: 11/02/90

COMPLETED BY: L.A. Warren

TELEPHONE: 804-357-3184 x355

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
10/06/90	S	618.5	C	1	N/A	N/A	N/A	Unit was ramped down to perform refueling.

(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) 3	(4) Exhibit G - Instructions for Preparation of Data Entry Sheets for Licensee Event Report (LER) File (NUREG 0161) 3 Exhibit 1 - Same Source
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**UNIT SHUTDOWN AND POWER REDUCTION
(Equal To or Greater Than 20%)**

REPORT MONTH: OCTOBER 1990

DOCKET NO.: 50-281
 UNIT NAME: Surry Unit 2.
 DATE: 11/02/90
 COMPLETED BY: L.A. Warren
 TELEPHONE: 804-357-3184 x355

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
10/01/90	S	0	B	4	N/A	N/A	N/A	Unit power was reduced to 73% to perform 2-PT-29.1 (Turbine Valve Freedom Test).
10/22/90	F	211.3	D	4	N/A	BI	HX	Unit was ramped down to hot shutdown as a result of concerns related to low service water flow through the Recirculation Spray Heat Exchanger (RSHX). These concerns were determined from the results of a Unit One flow test of the RSHX.

(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)
		4	(5) Exhibit 1 - Same Source

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO.: 50-280
UNIT NAME: Surry Unit 1
DATE: 11/02/90
COMPLETED BY: L.A. Warren
TELEPHONE: (804)357-3184 x355

MONTH: OCTOBER 1990

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>403</u>	17	<u>0</u>
2	<u>401</u>	18	<u>0</u>
3	<u>394</u>	19	<u>0</u>
4	<u>393</u>	20	<u>0</u>
5	<u>389</u>	21	<u>0</u>
6	<u>65</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>		

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.

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO.: 50-281
UNIT NAME: Surry Unit 2
DATE: 11/02/90
COMPLETED BY: L.A. Warren
TELEPHONE: (804)357-3184 x355

MONTH: OCTOBER 1990

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>740</u>	17	<u>776</u>
2	<u>775</u>	18	<u>776</u>
3	<u>775</u>	19	<u>777</u>
4	<u>775</u>	20	<u>778</u>
5	<u>773</u>	21	<u>778</u>
6	<u>774</u>	22	<u>777</u>
7	<u>775</u>	23	<u>104</u>
8	<u>774</u>	24	<u>0</u>
9	<u>774</u>	25	<u>0</u>
10	<u>773</u>	26	<u>0</u>
11	<u>774</u>	27	<u>0</u>
12	<u>775</u>	28	<u>0</u>
13	<u>775</u>	29	<u>0</u>
14	<u>774</u>	30	<u>0</u>
15	<u>774</u>	31	<u>0</u>
16	<u>775</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.

SUMMARY OF OPERATING EXPERIENCE

MONTH/YEAR: OCTOBER 1990

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

10/01/90 0000 This reporting period started with the Unit coasting at 57% power and 440 MWe due to fuel depletion.

10/06/90 0140 The unit began a ramp down from 56.4% power, 425 MWe to hot shutdown to start the Cycle 10 refueling outage.

0628 Unit 1 off line. Begin 60 day refueling outage.

10/31/90 2400 Unit in refueling shutdown.

SUMMARY OF OPERATING EXPERIENCE

MONTH/YEAR: OCTOBER 1990

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 TWO

10/01/90 0000 This reporting period started with the Unit operating at 100% power, 815 MWe.

1800 Started ramp down to perform PT-29.1 turbine stop valve freedom of movement test.

2030 Stopped ramp; 73% power, 600 MWe.

2233 Started ramp up; 73% power, 600 MWe.

10/02/90 0116 Stopped ramp; 100% power, 820 MWe.

10/22/90 0120 Started ramp; 100% power, 815 MWe, to hot shutdown due to limiting condition of operation (LCO), (recirculation spray system operability indeterminate based on service water flow concerns identified in Unit 1 flow test).

0541 Unit 2 off line.

0610 Reactor sub-critical.

10/31/90 2400 Reporting period ended with Unit 2 at cold shutdown.

FACILITY CHANGES THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR: OCTOBER 1990

AC-S1-90-0924B ADMINISTRATIVE CONTROL 10/02/90
(Safety Evaluation #90-231)

To ensure that containment integrity can be maintained in accordance with T.S. 1.0 Definitions, with the manual outside instrument air supply isolation valves to Unit 2 containment open, these valves are normally maintained closed and locked. The outside instrument air supplies to Unit 2 containment were to be closed within 30 seconds in the event of a safety injection or CLS on Unit 1 to establish containment integrity.

Administrative Control was placed over 2-IA-446 and 2-IA-447, outside instrument air supply manual isolation valves to Unit 1 containment in accordance with SUADM-0-26.

Administrative control over 2-IA-446 and 2-IA-447 ensures the ability to maintain containment integrity as defined in technical specifications. The valves will be closed upon notification by the main control room. In addition, control over the valves will ensure the ability to maintain the containment partial pressure within the limits established by T.S. 3.8. Therefore, an unreviewed safety question is not created.

AC-S1-90-0924C ADMINISTRATIVE CONTROL 10/02/90
(Safety Evaluation #90-232)

1-SW-263 is to be closed within two (2) minutes of notification by the firewatch in Mechanical Equipment Room (MER) #3, or upon actuation of MER #4 (Turbine Building #2 MER) smoke detectors, or an actual fire in either of the above rooms. If the MER #4 smoke detectors are out of service, a fire watch must be established in both areas.

Administrative control was placed over 1-SW-263 in the manual override position in accordance with SUADM-0-26 and 1-MOP-8.25 due to ongoing mechanical work in MER #3 and the 1/2-SW-P-10A pump room. The fire actuated automatic closure valve in the SW crosstie for the CH pump and SW pumps must be manually overridden in the open direction to prevent spurious valve closure due to smoke from welding and grinding.

The valve can be closed by Operators within two minutes of notification by firewatches in either MER #3 or MER #4 (if stationed) or, if the MER #4 smoke detectors are operable, by an annunciator in the main control room for fire or smoke detected in the service water pump room. Adequate protection is still provided to meet the safe shutdown requirements of 10CFR50, Appendix R. Therefore, an unreviewed safety question is not created.

FACILITY CHANGES THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR: OCTOBER 1990

AC-S1-90-924D ADMINISTRATIVE CONTROL 10/02/90
(Safety Evaluation #90-233)

The administrative control required certain valves to be closed within 30 seconds upon notification from main control room that a safety injection or CLS has occurred on Unit 1. This action is necessary to ensure establishing containment integrity in accordance with T.S. 1.0 Definitions. These valves are normally closed and locked.

This request placed administrative control over 1-SA-60 and 1-SA-62, service air supply manual isolation valves to Unit 1 containment.

Administrative control over 1-SA-60 and 1-SA-62 in accordance with SUADM-0-26 ensures the ability to maintain containment integrity as defined in Technical Specifications. The valves will be closed upon notification by the main control room. In addition, control over the valves will ensure the ability to maintain the containment partial pressure within the limits established by T.S. 3.8. Therefore, an unreviewed safety question does not exist.

1-EWR-87-393 ENGINEERING WORK REQUEST 10/02/90

The auxiliary feedwater pump lube oil (L.O.) cooler cooling water discharge piping is being rerouted to eliminate cooling water and lube oil heat up problems.

The UFSAR Chapter 14 accident analyses which were reviewed included: loss of normal feedwater, loss of all A.C. power to station auxiliaries, design basis accident, and steam generator tube rupture. The item common in these accidents is the requirement to have auxiliary feedwater system available. It is concluded that the change to the auxiliary feedwater pump L.O. cooler cooling water discharge piping will not affect the availability or capacities of the auxiliary feedwater pumps. Therefore, an unreviewed safety question does not exist.

GENERIC SAFETY ANALYSIS 10/03/90
(Safety Evaluation #90-0235)

This request erected temporary scaffolds for performing various maintenance and construction activities periodically.

The temporary scaffolds are required for safe working. Scaffolds installed per SUADM-ADM-07 have a high confidence level against failure and were reviewed for effects on accident analyses and equipment operability function. It is thus concluded that assumptions, bases and probabilities of accident analyses and equipment malfunctions are not affected.

FACILITY CHANGES THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR: OCTOBER 1990

1/2-EWR-89-701 ENGINEERING WORK REQUEST 10/04/90
(Safety Evaluation #90-114)

An air dam will be installed in the fuel building pipe tunnel to prevent the spread of contamination from the fuel building pipe tunnel into the auxiliary building basement.

This evaluation allows the installation of an air dam in the fuel building pipe tunnel. The dam is being installed due to several personnel contamination events and the spread of contamination into clean areas of the auxiliary building basement from the fuel building pipe tunnel. The air dam is seismically designed to prevent damage to safety related piping located in the pipe tunnel. The placement of the air dam in the pipe tunnel will not alter the operation or design function of the station ventilation system or building shear wall system. Therefore, an unreviewed safety question does not exist for this modification.

TSR-90-007/031 TEMPORARY SHIELDING REQUESTS 10/05/90
(Safety Evaluation #90-0239)

This request was to shield two (2) sections of pipe, 2"-DA-34-152 and 2"-RL-3-152, and valve 1-RL-12 for hot spots to reduce general area radiation levels for ALARA considerations.

Safety related reactor cavity drains are required to remain operable while covered with temporary lead shielding. The operation of the line is not affected by the shielding. A seismic analysis has been performed to demonstrate adequacy with the lead shielding in place. Therefore, the system remains operable and an unreviewed safety question does not exist.

AP-37.01 ABNORMAL PROCEDURE 10/12/90
(Safety Evaluation #90-0246)

This procedure allowed removal of the 'A' and 'B' component cooling heat exchangers from service for replacement.

The calculated heat loads for current unit conditions (Unit 1 in cold shutdown for approximately one week and Unit two at full power) can be removed by the two operable component cooling heat exchangers. The analysis assumes the worst case storm surge due to a hurricane. Further, the additional heat loads that would result from placing Unit 2 on residual heat removal can also be removed. Finally, two operable CCHXs under current unit operating conditions satisfy Technical Specification requirements. Therefore, an unreviewed safety question is not created.

FACILITY CHANGES THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR: OCTOBER 1990

WESTINGHOUSE SAFETY EVALUATION NS-RCSCS-90-1439 10/15/90
(Safety Evaluation #90-0247)

This request allows utilization of Alloy 690 plugs in the steam generator tubes.

The use of the Alloy 690 was approved by the ASME code and the NRC for steam generator tube plugging applications. This alternate plug material has been extensively tested and found to be very resistant to corrosion and corrosion related failure.

S1-TM-90-30 TEMPORARY MODIFICATION 10/19/90
(Safety Evaluation #90-0249)

The modification required dose control roughing filters to be affixed to the upstream side of the cooling coils for the containment air recirculation fans (1-VS-F-1A,B,C).

The differential pressure added by filters to the recirculation fan from the system is minimal. Fans and cooling coils are not safety related. Therefore, an unreviewed safety question does not exist.

TSR-90-018 TEMPORARY SHIELDING REQUEST 10/19/90
(Safety Evaluation #90-0250)

This request required temporary shielding to be added to lines 12"-SI-45-1502, 12"-SI-46-1502 and 12"-47-1502 in the safety injection system to shield workers in the areas from hot spots.

The major issue considered is that an estimated savings of 1.85 man-rem over the installation period will result from the addition of lead shielding to the three safety injection lines in the form of lead blankets. The loading from this shielding has been analyzed seismically by calculation #CE-0576 and concluded acceptable for installation during operating conditions. No other safety related equipment can be affected by their location. Shielding installation will be inspected weekly for safe placement. Therefore, an unreviewed safety question is not created.

FACILITY CHANGES THAT DID NOT REQUIRE NRC APPROVAL

MONTE/YEAR: OCTOBER 1990

1/2-EWR-90-320 ENGINEERING WORK REQUEST 10/23/90
(Safety Evaluation #90-248)

This request dedicated a non-safety related pump and motor for installation in a safety related application. The motor is identical, but the pump has slight weight and flow/head differences.

1-WT-P-11A is being installed in the service water supply to the ventilation system chiller for 1-VS-P-1C due to the operational problems with 1-VS-P-1C and the lack of spare safety related pump/motors. 1-WT-P-11A has an identical motor and a pump with acceptable dimensions, materials, flow and head capabilities and will not affect the seismic qualification of the ventilation system. This new pump motor will provide the same function without compromising any safety function. Therefore, an unreviewed safety question is not created.

1/2-EWR-90-102 ENGINEERING WORK REQUEST 10/25/90
(Safety Evaluation #90-0178)

This request provided two sources of electrical power to the new radwaste facility.

A UFSAR change will be required due to the necessary change of the associated one-line diagram. A new 362 circuit will be added in the switchyard which will provide one of the two sources of power to the facility. The increase in electrical loading (6250 KVA connected) has been properly analyzed by Electrical Engineering to ensure that compliance with the existing GDC-17 offsite power analysis is maintained. The new circuit has appropriate protective relaying to limit potential fault exposure of the bus. This new circuit will not adversely impact existing accident safety analysis, increase the potential of any accident, nor will it reduce the margin of the basis for any Technical Specification. Therefore, an unreviewed safety question is not created.

AC-S1-90-1026 ADMINISTRATIVE CONTROL 10/26/90
(Safety Evaluation #90-254)

The flood dike at the door to the Mechanical Equipment Room #3 from Unit 2 emergency switchgear room (ESGR) will be temporarily removed.

The administrative controls over the removal of the flood dike require Operations notification, reinstallation personnel on hand, and a flood watch. These controls provide assurance that the dike can be immediately reinstalled prior to flood damage occurring in the ESGR due to flooding in MER#3.

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

MONTH/YEAR: OCTOBER 1990

1-OP-4.1

OPERATING PROCEDURE
(Safety Evaluation #90-258)

10/31/90

The change to this procedure is to allow the lifting and lowering of the head to the storage vessel in containment prior to cavity flood-up.

Safe load paths identified on drawing number FM-150 and directions of GMP-001 must be adhered to strictly. 1-OP-4.1, Attachment 3, shall be reviewed by personnel directly responsible for the lift to provide detailed knowledge of the safe lift path and areas over which the lift will be strictly prohibited. The requirements of GMP-001 must also be strictly followed regarding the rigging and checks of load during lift and movement of the head. The lift shall be performed over only those components as directed by safe load path criteria with the strict lifting controls specified above so that the potential for drop or other mishap connected with the head lift is minimized. Finally, lifting of the head as described above minimizes the time that the head is rigged to the lifting devices. Therefore, an unreviewed safety question is not created.

TESTS AND EXPERIMENTS THAT DID NOT REQUIRE NRC APPROVAL

MONTH/YEAR: OCTOBER 1990

1-PT-13.4

PERIODIC TEST
(Safety Evaluation #90-234)

10/02/90

The purpose of this test is to incorporate the use of Furmanite's Trevitest method for testing of the main steam safety valves while at power or in a hot shutdown condition as defined in Surry Technical Specification, Section 1.

The two major issues evaluated for the testing of the main steam safety valves at power are that the test device will make the valve inoperable, i.e., not allow the valve to lift when required and that the valve may inadvertently come open and subsequently fail to reseat. An unreviewed safety question does not exist for either case since the inadvertent opening and failure to reclose of the largest safety valve is analyzed as part of the Main Steam Pipe Rupture Analysis in Section 14.3.2 of the UFSAR, and the ability of the main steam safety valve to lift is not impaired by the test equipment or method.

1-OPT-ZZ-002
1-OPT-ZZ-004

OPERATIONS PERIODIC TEST (Safety Evaluation #90-0238) 10/05/90
OPERATIONS PERIODIC TEST (Safety Evaluation #90-0237) 10/05/90

This change is required to comply with Technical Specifications and USFAR refueling requirements for surveillance testing.

The periodic test will test existing safety systems one train at a time. The unit will be within the Technical Specification requirements for a temperature and pressure less than 350° and 450 psig respectively. Two unisolated loops for reactor cooling will exist, one being a residual heat removal pump not being tested, and the other being the reactor cooling pump. No changes to the systems are required. Jumpers and lifted leads for the test require a temporary modification identified in the periodic test procedure with double verification. And retesting is performed by the periodic test procedure when the temporary modification is removed. Therefore, an unreviewed safety question does not exist.

VIRGINIA POWER
SURRY POWER STATION
CHEMISTRY REPORT

MONTH/YEAR: OCTOBER 1990

PRIMARY COOLANT ANALYSIS	UNIT NO. 1			UNIT NO. 2		
	MAX.	MIN.	AVG.	MAX.	MIN.	AVG.
Gross Radioact., $\mu\text{Ci/ml}$	1.35E+0	1.22E-3	9.21E-2	2.50E-1	6.49E-3	1.36E-1
Suspended Solids, ppm	0.0	0.0	0.0	0.0	0.0	0.0
Gross Tritium, $\mu\text{Ci/ml}$	6.84E-2	6.84E-2	6.84E-2	1.82E-1	1.46E-1	1.67E-1
Iodine-131, $\mu\text{Ci/ml}$	3.06E-1	1.25E-4	9.45E-3	1.05E-3	3.69E-4	6.18E-4
Iodine-131/Iodine-133	N/A	N/A	N/A	0.18	0.06	0.11
Hydrogen, cc/kg	23.6	0.0	9.1	33.0	7.0	14.1
Lithium, ppm	N/A	N/A	N/A	2.23	0.91	1.85
Boron - 10, ppm*	461.6	0.2	376.2	259.7	42	137.2
Oxygen, (DO), ppm	2.50	≤ 0.005	1.22	≤ 0.005	≤ 0.005	≤ 0.005
Choloride, ppm	0.003	≤ 0.001	0.002	0.005	≤ 0.001	0.003
pH at 25 degree Celsius	8.64	4.25	5.03	7.21	5.86	6.78

* Boron - 10 = Total Boron x 0.196

REMARKS:

UNIT 1&2

FUEL HANDLING

DATE: OCTOBER 1990

NEW OR SPENT FUEL SHIPMENT #	DATE SHIPPED OR RECEIVED	NUMBER OF ASSEMBLIES PER SHIPMENT	ASSEMBLY NUMBER	ANSI NUMBER	INITIAL ENRICHMENT	NEW OR SPENT FUEL SHIPPING CASK ACTIVITY LEVEL
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NONE DURING THIS REPORTING PERIOD

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

MONTH/YEAR: OCTOBER 1990

NONE DURING THIS REPORTING PERIOD