VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

June 13, 1978

Mr. R. A. Hartfield, Acting Director
Office of Management Information and
Program Control
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Serial No. 339
PO&M/DLB:das
Docket Nos. 50-280
50-281
License Nos. DPR-32
DPR-37

Dear Mr. Hartfield:

Enclosed are the following reports for Surry Power Station Unit Nos. 1 and 2.

Attachment 1: Refueling and Spent Fuel Storage Information, Surry Unit No. 1

Attachment 2: Refueling and Spent Fuel Storage Information, Surry Unit. No. 2

Attachment 3: Monthly Operating Report, Surry Power Station, Unit Nos. 1 and 2; for May 1978.

Very truly yours,

C. M. Stallings

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

Enclosures (3 copies)

cc: Dr. Ernst Volgenau, Director (10 copies)
Office of Inspection and Enforcement

Mr. James P. O'Reilly, Director (1 copy)
Office of Inspection and Enforcement

ATTACHMENT 1

1. Name: SURRY UNIT NO. 1

2. Next scheduled date for refueling shutdown: 11/1/79

3. Scheduled date for restart following refueling: 5/1/80 (refueling outage extended for steam generator replacement).

4. Technical Specifications Changes: No changes are forseen due to the reload core design. (The review by both the station and system safety committees will take place prior to submittal of the reload license to NRC.)

5. Scheduled date for reload licensing submittal: 2/1/80

6. Important licensing considerations: None

7. Number of fuel assemblies (as of 6/1/78):

   a. In the core: 157
   b. In the spent fuel storage pool:* 436

8. Licensed spent fuel pool storage capacity:*

   a. Current: 1044

9. Projected date of last refueling that can be discharged to the spent fuel storage pool assuming currently licensed capacity: October, 1984.

*Surry Units No. 1 and 2 share a common spent fuel storage pool.

ATTACHMENT 2

1. Name: SURRY UNIT NO. 2

2. Next scheduled date for refueling shutdown: 10/8/78

3. Scheduled date for restart following refueling: 4/15/79 (refueling outage extended for steam generator replacement)

4. Technical Specifications Changes: No changes are forseen due to the reload core design (The review by both the station and system safety committees will take place prior to submittal of the reload license to the NRC).

5. Scheduled date for reload licensing submittal: 1/1/79

6. Important licensing considerations: None

7. Number of fuel assemblies (as of 6/1/78)

   a. In the core: 157
   b. In the spent fuel storage pool:* 436

8. Licensed spent fuel pool storage capacity:*

   a. Current: 1044

9. Projected date of last refueling that can be discharged to the spent fuel storage pool assuming currently licensed capacity: April, 1985.

*Surry Units No. 1 and 2 share a common spent fuel storage pool.

ATTACHMENT 3

VIRGINIA ELECTRIC AND POWER COMPANY

SURRY POWER STATION

MONTHLY OPERATING REPORT

REPORT NO. 78-05

MAY, 1978

W. R. Stewart

Superintendent - Station Operations

APPROVED:

W. R. Stewart

for MANAGER

CONTENTS

OPERATING DATA REPORT

DOCKET NO. 50-280
DATE 6-1-78
COMPLETED BY O.J. Costello
TELEPHONE 804-357-3184

OPERATING STATUS

1. Unit Name: Surry 1
2. Reporting Period: 0001 780501 - 2400 780531
3. Licensed Thermal Power (MWt): 2441
4. Nameplate Rating (Gross MWe): 847.5
5. Design Electrical Rating (Net MWe): 822
6. Maximum Dependable Capacity (Gross MWe): 811
7. Maximum Dependable Capacity (Net MWe): 775

Notes

8. If Changes Occur in Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reasons:
N/A

9. Power Level To Which Restricted, If Any (Net MWe): N/A
10. Reasons For Restrictions, If Any: N/A

	This Month	Yr.-to-Date	Cumulative
11. Hours In Reporting Period	744	3,623	47,687
12. Number Of Hours Reactor Was Critical	0	2,667	31983.9
13. Reactor Reserve Shutdown Hours	0	0	0
14. Hours Generator On-Line	0	2666.5	31231.7
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	0	6,486,752	71,627,748
17. Gross Electrical Energy Generated (MWH)	0	2,160,910	23,520,753
18. Net Electrical Energy Generated (MWH)	0	2,057,327	22,324,891
19. Unit Service Factor	0	73.6%	65.5%
20. Unit Availability Factor	0	73.6%	65.5%
21. Unit Capacity Factor (Using MDC Net)	0	73.3%	60.4%
22. Unit Capacity Factor (Using DER Net)	0	69.1%	57%
23. Unit Forced Outage Rate	0	0	16.8%

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):
None

25. If Shut Down At End Of Report Period, Estimated Date of Startup: 6/30/78

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 6-1-78
COMPLETED BY O.J. Costello
TELEPHONE 804-357-3184

OPERATING STATUS

1. Unit Name: Surry 2
2. Reporting Period: 0001 780501 - 2400 780531
3. Licensed Thermal Power (MWt): 2441
4. Nameplate Rating (Gross MWe): 847.5
5. Design Electrical Rating (Net MWe): 822
6. Maximum Dependable Capacity (Gross MWe): 811
7. Maximum Dependable Capacity (Net MWe): 775

Notes

8. If Changes Occur in Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reasons:
N/A

9. Power Level To Which Restricted, If Any (Net MWe): N/A
10. Reasons For Restrictions, If Any: N/A

	This Month	Yr.-to-Date	Cumulative
11. Hours In Reporting Period	744	3,623	44,567
12. Number Of Hours Reactor Was Critical	616.9	2,993.8	29,406.6
13. Reactor Reserve Shutdown Hours	0	0	0
14. Hours Generator On-Line	614.9	2,988.2	28,917.1
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	1,493,577	7,267,966	66,978,200
17. Gross Electrical Energy Generated (MWH)	482,750	2,371,315	21,938,709
18. Net Electrical Energy Generated (MWH)	459,395	2,253,597	20,806,714
19. Unit Service Factor	82.6%	82.5%	64.9%
20. Unit Availability Factor	82.6%	82.5%	64.9%
21. Unit Capacity Factor (Using MDC Net)	79.7%	80.3%	60.2%
22. Unit Capacity Factor (Using DER Net)	75.1%	75.7%	56.8%
23. Unit Forced Outage Rate	17.4%	4.1%	23.8%

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):
Refueling and Steam Generator Inspection - Oct. 15, 1978, 5 weeks.

25. If Shut Down At End Of Report Period, Estimated Date of Startup: N/A

26. Units In Test Status (Prior to Commercial Operation):

	Forecast	Achieved
INITIAL CRITICALITY		
INITIAL ELECTRICITY		
COMMERCIAL OPERATION		

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH May, 1978

DOCKET NO. 50-280
UNIT NAME Surry
DATE 6-1-78
COMPLETED BY G. Kane
TELEPHONE 804-357-3184

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
78-1	780501	S	744	C	1				Unit shutdown for the entire month. Refueling completed, turbine repairs in progress, steam generator maintenance in progress.

1
F: Forced
S: Scheduled

2
Reason:
A-Equipment Failure (Explain)
B-Maintenance of 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 I - Same Source

(9/77)

12-28-77

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH May, 1978

DOCKET NO. 50-281
UNIT NAME Surry 2
DATE 6-1-78
COMPLETED BY G. Kane
TELEPHONE 804-357-3184

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
78-2	780524	F	129.1	H	1	LER 78-019/03L -0	ZZ	Suport	Snubber Inspection

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 I - Same Source

(9/77)

12-28-77

LOAD REDUCTIONS DUE TO ENVIRONMENTAL RESTRICTIONS

UNIT NO. 1 MONTH: MAY, 1978

DATE	TIME	HOURS	LOAD, MW	REDUCTIONS, MW	MWH	REASON
				(None during this reporting period).		
				MONTHLY TOTAL	0	

LOAD REDUCTIONS DUE TO ENVIRONMENTAL RESTRICTIONS

UNIT NO. 2 MONTH: MAY, 1978

DATE	TIME	HOURS	LOAD, MW	REDUCTIONS, MW	MWH	REASON
			(None during this reporting period).			
				MONTHLY TOTAL	0	

DOCKET NO. 50-280
UNIT I
DATE May, 1978
COMPLETED BY O.J. Costello

AVERAGE DAILY UNIT POWER LEVEL

MONTH May, 1978

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	29	0
14	0	30	0
15	0	31	0
16	0		

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.

DOCKET NO. 50-281
UNIT II
DATE May, 1978
COMPLETED BY O.J. Costello

AVERAGE DAILY UNIT POWER LEVEL

MONTH May, 1978

DAY	AVERAGE DAILY POWER LEVEL (MWe-net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-net)
1	756.0	17	753.9
2	756.8	18	753.3
3	752.3	19	753.3
4	751.6	20	753.5
5	748.8	21	753.8
6	750.0	22	752.3
7	750.1	23	751.5
8	749.8	24	452.5
9	745.6	25	0
10	753.1	26	0
11	752.3	27	0
12	752.0	28	0
13	758.1	29	0
14	757.1	30	624.7
15	757.9	31	748.0
16	753.1		

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.

SUMMARY OF OPERATING EXPERIENCE

MAY, 1978

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 1

May 1 - This report begins with the unit in a refueling outage with head bolt detensioning in progress.

May 2 - Part length control rod unlatching operation completed at 1830.

May 3 - Lifted reactor vessel head at 1030. Full length control rod unlatching operation completed at 1500. Commenced fuel movement at 2340.

May 4 - Fuel movement stopped due to high airborne activity in the containment.

May 6 - Fuel movement restarted at 1538.

May 12 - Fuel movement completed at 1105. Surveillance capsule W was removed for evaluation.

May 13 - Full length control rod latching operation completed at 1000.

May 15 - Lower reactor vessel head in place at 1055. Part length control rod latching operation completed at 2200.

May 31 - This report ends with the unit still in a maintenance outage with the reactor vessel head bolts tensioned. There is still primary maintenance underway and major turbine maintenance underway.

UNIT 2

May 1 - This report begins with the unit at 100% power.

May 5 - At 0910 load was reduced to 94% to clear a delta-T runback alarm. At 1100 the unit was returned to 100%.

May 9 - At 1540 load was reduced to 96% to allow removal of both Lo Pressure Drain Pumps for cooling line maintenance. At 1927 the unit was returned to 100% power.

May 24 - At 1200 a rampdown was started for snubber inspection. At 1645 the generator output breakers were opened, the turbine tripped, and the reactor manually shutdown. A unit cooldown was commenced. At 2330 the unit was <350°F/450 PSIG. The plant temperature was to be maintained at approximately 340°F. The snubber inspection was begun.

May 29 - At 1430 the RCS was heated up to >350°F/450 PSIG as per normal plant recovery. The snubber inspection & repair having been completed. At 2350 the reactor was taken critical and at 2400 was at 2×10^{-5} amps in the intermediate range of nuclear instrumentation.

SUMMARY OF OPERATING EXPERIENCE

(CONTINUED)

UNIT 2

May 30 - At 0149 the turbine was synchronized to the system and a load increase begun. At 0700 the unit reached 100% power.

May 31 - This report ends with the unit at 100% power.

AMENDMENTS TO FACILITY LICENSE OR TECHNICAL SPECIFICATIONS

MAY, 1978

On May 10, 1978, the Nuclear Regulatory Commission issued Amendment Nos. 41 and 40 to the Operating License for the Surry Power Station Unit Nos. 1 and 2, respectively, which are designated as Technical Specification Change No. 53. This change is the result of an NRC request to add surveillance requirements for the emergency diesel batteries. Of significance are the following changes:

1. Addition of limiting condition for operation of emergency diesel batteries.

2. Addition of tests, test frequencies and acceptance criteria for emergency diesel batteries.

The Nuclear Regulatory Commission issued an order April 28, 1978, which modifies Surry Unit No. 2 Operating License. The order results from the NRC Staff's review of an error in the Westinghouse Electric Corporation LOCA-ECCS analysis. The error discovered was in the fuel rod heat balance equation involving the incorrect use of only half of the volumetric heat generation due to metal-water reaction in calculating the cladding temperature. Of significance, the order has the following provisions:

1. As soon as possible, the licensee shall submit a re-evaluation of ECCS cooling performance calculated in accordance with the Westinghouse Evaluation Model, approved by the NRC Staff and corrected for the errors described herein.

2. Until further authorization by the Commission, the Technical Specification limit for total nuclear peaking factor (F_Q) for the Surry Power Station, Unit No. 2 shall be limited to 1.81 for a steam generator tube plugging level of 20.8% or less and 1.79 for a steam generator tube plugging level of greater than 20.8% but less than 25%.

3. Until further authorization by the Commission, the licensee shall conduct the operating surveillance program described in its letter of April 17, 1978 where APDM surveillance will be performed above 85% for Unit No. 2.

FACILITY CHANGES REQUIRING NRC APPROVAL

There were none during this reporting period.

FACILITY CHANGES THAT DID NOT REQUIRE NRC APPROVAL

MAY, 1978

The following facility changes were implemented during the month of May. None of the changes constituted an unreviewed safety question per 10CFR50.59.

Design Change — Unit

1. DC-76-29 - Flow Shutoff of Low Pressure Heater Drain Pump Miniflow — Unit 1

Description - This design change incorporates the addition of a solenoid valve in the recirculation line which will eliminate cavitation through the miniflow line when flow through the pump is greater than 400 gpm.

Summary of Safety Evaluation

This system is not addressed in either the FSAR or Technical Specifications since it is not safety related and does not affect any safety related system.

Conclusion

There are no safety implications for this design change which effect the health and safety of the public.

2. DC-76-36 - Manipulator Crane Load Cell Readout — Unit 1

Description - This modification is to mount an auxiliary readout for the Manipulator Crane load cell to enable the crane operator to monitor the load and evaluation continuously.

Summary of Safety Evaluation

The probability of occurrence or the consequence of an accident or malfunction of equipment important to safety and previously evaluated in the safety analysis report is not increased because no protective circuits will be altered. A possibility for an accident or malfunction of a different type than any evaluated in the safety analysis report is not created because the proposed Design Change does not alter the function of the original equipment. The margin of safety as defined in the basis for any Technical Specification is not reduced because no protective functions have been altered.

Conclusion

This Design Change does not constitute an unreviewed safety question or change the basis of any Technical Specification.

FACILITY CHANGES THAT
DID NOT REQUIRE NRC APPROVAL
(CONTINUED)

Design Change — Unit

3. DC-77-02 - Manipulator Crane Improvements — 1

Description - Modifications have been initiated to eliminate the possibility of dropping a fuel assembly. A control circuit was inserted to prevent lifting a hung up assembly and the designed gripper guidepins were installed.

Summary of Safety Evaluation

The possibility of an occurrence or the consequence of an accident or malfunction of equipment important to safety and previously evaluated in the Safety Analysis Report is not increased because the addition of the interlock circuit does not bypass any existing safety interlock circuits and the installation of the new guidepins will not alter their function or performance of the gripper. A possibility for an accident or malfunction of a different type than any previously evaluated in the Safety Analysis Report is not created because the failure of the new interlock system will either render the system to its original configuration or prevent the withdrawal of a fuel assembly. This will not create a possibility for a different type of accident. The new guide pins will function as the previous ones have and thus will not create a possibility for a different type of accident. The margin of safety as defined in the basis for any Technical Specification is not reduced because the proposed Design Change will add two safety features which will increase the margin of safety as discussed in Section 3.10.

Conclusion

This design change does not constitute an unreviewed safety question or change the basis of any Technical Specification.

4. DC-77-07 - Manipulator Crane Gripper Modification — 1

Description - Modify the manipulator crane gripper to provide power assistance with the engage stroke. Previous configuration included power stroke only while disengaging.

Summary of Safety Evaluation

The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety and previously evaluated in the Safety Analysis Report is not increased because this change does not modify any existing safety features or interlocks. A possibility for an accident or malfunction of a different type than any evaluated previously, in the Safety Analysis Report is not created because the gripper and its interlocks will function as they were designed. The margin of safety as defined in the basis for any Technical Specification is not reduced because no margin of safety for the manipulator crane is addressed in Technical Specification.

4. DC-77-07 - Manipulator Crane Gripper Modification

Conclusion

The design change neither constitutes an unreviewed safety question nor changes the basis for any Technical Specification.

5. DC-77-18 - Modification to Manipulator Crane Gripper Fingers — Unit 1

Description - Due to redesigned fuel assemblies from Westinghouse, the interface of the gripper fingers and fuel assemblies must be modified to provide proper latching. This was accomplished by machining the fingers to provide more secure latching.

Summary of Safety Evaluation

The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety and previously evaluated in the safety analysis is decreased because, after the elimination of the point of interference, the reliability of the gripper will be assured, and, also the handling tools used in the fuel handling operation are conservatively designed initially, and operate on a fail-safe basis. A possibility for an accident or malfunction of a different type than any evaluated previously in the Safety Analysis Report is not created because the removed metal will be on the thickest part of the finger and will not compromise the strength of the thinner part of the finger where no relief is required. Also, the thinner part of the finger, where the surface is vertical, is where the maximum static movement stresses are located. The margin of safety as defined in the basis for any Technical Specification is not reduced because no margin of safety for the Manipulator Crane Gripper Fingers is addressed in the Technical Specifications.

Conclusion

This design change does not constitute an unreviewed Safety Question per 10CFR50.59 or change the basis for any Technical Specification.

6. DC-78-02 - Chemistry Hot Lab Gas Bottle Storage — 1,2

Description - The storage and piping configuration for bottled gasses used in the Hot Lab presented potential safety hazards. which were eliminated with the relocation of the storage area outside the building adjacent to the other bottled gases (N_2, H_2).

Summary of Safety Evaluation

This design change does not modify safety related equipment, involve any postulation addressed in the FSAR, or reflect on any margin of safety defined in Technical Specification.

Conclusion

This design change presents no implications which should effect the health and safety of the public.

TEST AND EXPERIMENTS REQUIRING NRC APPROVAL

MAY, 1978

There were none during this reporting period.

TESTS AND EXPERIMENTS THAT DID NOT REQUIRE NRC APPROVAL

MAY, 1978

ST-54	Terminal Block Verification	Unit
	This test was conducted May 11, 1978, to obtain information to formulate a response to IE Bulletin 78-02. Results of the test will be reported in a specific response letter.	1
ST-56	Limit Switch Verification	
	This test was conducted May 11, 1978, to obtain information to formulate a response to IE Bulletin 78-04. Results of the test will be reported in a specific response letter.	1

OTHER CHANGES, TESTS AND EXPERIMENTS

MAY, 1978

There were none during this reporting period.

SURRY POWER STATION

CHEMISTRY REPORT

MAY , 1978

T.S.6.6.A.11

PRIMARY COOLANT ANALYSIS	UNIT NO. 1			UNIT NO. 2		
	MAXIMUM	MINIMUM	AVERAGE	MAXIMUM	MINIMUM	AVERAGE
Gross Radioact., µCi/ml	1.19E-2	1.02E-3	4.18E-3	1.52E-1	2.38E-3	8.67E-2
Suspended Solids, ppm	2.0	0.2	0.7	0.7	0.0	0.3
Gross Tritium, µCi/ml	3.56E-2	$2.07E^{-2}$	$2.40E^{-2}$	$2.14E^{-1}$	$8.09E^{-2}$	$1.60E^{-1}$
Iodine-131, µCi/ml	2.45E-3	1.17E-4	5.68E-4	5.69E-4	1.37E-4	3.46E-4
I-131/I-133	*	*	*	.2527	.0643	.1142
Hydrogen, cc/kg	0.0	0.0	0.0	44.7	29.4	36.2
Lithium, ppm	0.35	0.00	0.15	1.95	0.96	1.57
Boron-10, ppm +	538.6	445.7	499.0	233.8	82.7	111.7
Oxygen-16, ppm	6.0	0.6	1.5	0.000	0.000	0.000
Chloride, ppm	0.07	0.05	0.05	0.07	0.05	0.05
pH @ 25°C	5.38	4.56	4.97	7.06	6.39	6.88

+ Boron-10 = Total Boron x 0.196

NON-RADIOACTIVE CHEMICAL
RELEASES, POUNDS
T.S. 4.13.A.8

Phosphate	19	Boron	754
Sulfate	580	Chromate	5.0
50% NaOH	702	Chlorine	0.0

Remarks: * Unit #1 Refueling shutdown during entire month.

Unit #2 Shutdown 5-24-78 to 5-30-78

DESCRIPTION OF ALL INSTANCES WHERE THERMAL DISCHARGE LIMITS WERE EXCEEDED

MAY, 1978

On May 30, 1978, a thermal excursion was experienced during startup of Unit II with maintenance in progress on circulating water fish screens and condenser waterboxes. The excursion was reported in accordance with Technical Specification 4.14.C.1.

May 30, 1978 - Exceeded 3°F/Hr Rate of change

There were no reported instances of significant adverse environmental impact.

FUEL HANDLING

MAY, 1978

During this month Unit 1 was refueled. There were 64 new fuel assemblies inserted into Unit 1 and 64 discharged to the spent fuel pool. No new fuel was received or spent fuel shipped.

DATE IPPED/RECEIVED	NO OF ASSEMBLIES PER SHIPMENT	ANSI NO. INITIAL ENRICHMENT	NEW OR SPENT FUEL SHIPPING CASK ACTIVITY LEVEL
	NONE DURING THIS PERIOD.		

DATE SHIPPED/RECEIVED	NO OF ASSEMBLIES PER SHIPMENT	ANSI NO. INITIAL ENRICHMENT	NEW OR SPENT FUEL SHIPPING CASK ACTIVITY LEVEL
	NONE DURING THIS PERIOD.		

PROCEDURE REVISIONS THAT CHANGED THE OPERATING MODE DESCRIBED IN THE FSAR

MAY, 1978

There were none during this reporting period.

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

MAY, 1978

There were none during this reporting period.

INSERVICE INSPECTION

MAY, 1978

An eddy current, gaging inspection was performed in Unit #1 A,B and C Steam Generators in accordance with VEPCO NDT Procedure 14.1. The Reg. Guide 1.83 inspection revealed 2 tubes in "A" S/G having defects >40%. "B" S/G had no tubes with >40% defect. "C" S/G had 6 tubes with >40% defect. Greater than 12% of the tubes were inspected in all three S/G's in accordance with Reg. Guide 1.83. The number of tubes scheduled to be plugged are as follows:

	A	B	C
Gaging	18	31	40
Reg. Guide	2	-	6

Approved W Procedures were used in the repair of the 10 leaking plugs in "A" Steam Generator.

Westinghouse performed inservice inspections on the Unit #1 applicable safety related items detailed in Technical Specifications, Section 4.2-1 through 4.2-35.

This inspection included a visual on the reactor vessel interior surfaces, ultrasonic testing of the reactor coolant pump flywheel, visual and liquid penetrant on sensitized piping. The detailed inspection program along with results will be published by Westinghouse and transferred to the site for records purposes. The rough data is available on site for review.

No reportable indications were found in the above mentioned inspections.

Ultrasonic inspection was conducted on 20 welds in the low points of the C.S. and R.S. Systems in accordance with VEPCO letter serial number 345/112476, dated January 11, 1977.

No reportable indications were found in this inspection.

UNIT 1-MAY 1979

(MAINTENANCE OF SAFETY RELATED SYSTEMS DURING OUTAGE OR REDUCED POWER PERIODS)

MAINSNDT	SYS	COMP	MARK #	SUMMARY	WKPERF	U	WR	TOTDWNTM
05/15/78	RC	RX VESS		PERFORM NDT ON RX VESS COMPONENTS	INSPECTION SATISFACTORY	1	804201057	358
05/16/78	RC	PIPING	1.5-RC-105	INVESTIGATE SURFACE GRIND INDICAT	INDICATION CLEANED	1	805151024	27
05/16/78	RC	PIPING	1.5-RC-101	INVESTIGATE SURFACE GRIND INDICAT	INDICATIONS CLEARED	1	805151025	5
05/17/78	SI	PIPING	6-SI-153	GRIND WELD FLUSH RE EXAM IT	RT ACCEPTABLE	1	805151023	48
05/17/78	MH	PIPING	10-MH-18-602	INVESTIGATE SURFACE GRIND INDICAT	INDICATIONS BUFFED OUT RE PTD	1	805151026	48
05/18/78	RC	PIPING	6-RC-19	INVESTIGATE SURFACE GRIND INDICAT	INDICATIONS BUFFED OUT RE PT'D	1	805161420	43
05/18/78	RC	PIPING	6-RC-18	INVESTIGATE SURFACE GRIND INDICAT	INDICATIONS BUFFED OUT REJ-PT'D	1	805161425	43
05/18/78	CH	PIPING	2-CH-9	INVESTIGATE SURFACE GRIND INDICAT	INDICATIONS BUFFED OUT RE-PT'D	1	805161430	43
05/20/78	CH	PIPING	3-CH-61	BUFF OUT INDICATION RE PT	INDICATION BUFFED OUT RE PT'D	1	805191000	22
05/20/78	CH	PIPING	3-CH-1	BUFF OUT INDICATION RE PT	INDICATION BUFFED OUT PT'D OK	1	805191001	22
05/20/78	SI	PIPING	2-SI-74	BUFF OUT INDICATION RE PT	INDICATIONS BUFFED OUT RE PT'D	1	805191002	22
05/20/78	SI	PIPING	2-SI-71	BUFF OUT INDICATION RE PT	INDICATION BUFFED OUT PT'D OK	1	805191003	22
05/20/78	SI	PIPING	6-SI-50	GRIND OUT INDICATIONS RE PT	INDICATIONS BUFFED OUT PT'D OK	1	805191004	22
05/23/78	RC	PMP MTR	1-RC-P-1A	UT/VT FLYWHEEL	NDT COMPLETE SATISFACTORY	1	804201058	696
05/23/78	RC	PMP MTR	1-RC-P-1B	UT/VT FLYWHEEL	NDT COMPLETE SATISFACTORY	1	804201059	696
05/23/78	RC	PMP MTR	1-RC-P-1C	UT/VT FLYWHEEL	NDT COMPLETED SATISFACTORY	1	804201100	696
05/26/78	RC	PIPING		UT RS+CS WELDS	UT 10 WELDS ON RS AND CS SYS EACH	1	804201101	715
05/30/78	RC	PZR		PERFORM NDT ON PZR COMPONENTS	NDT COMPLETE SATISFACTORY	1	804201056	864
05/31/78	RC	PIPING		PERFORM NDT ON PRIMARY PIPING SYSTEM	NDT COMPLETE SATISFACTORY	1	804201055	888
DEPT TOTAL								5100

REPORTABLE OCCURRENCES PERTAINING TO
ANY OUTAGE OR POWER REDUCTIONS

MAY, 1978

Unit #2 Outage occurred on May 24-30, 1978 because of a requirement for re-inspection of hydraulic seismic supports (snubbers). The details of this inspection and results are contained in LER 78-09/03-L-0 (050-0281).

MAY, 1978

MONTHLY OPERATING SUPPLEMENT SHEET
MECHANICAL MAINTENANCE

UNIT 1

1. MAINTENANCE ORDERS COMPLETED SAFETY RELATED ITEMS 114

2. DESIGN CHANGES BEING WORKED DC-76-29, 76-36, 77-02, 77-07, 77-18, 77-29, 78-01, 76-30, 77-08, 78-10, 76-14, 77-19, 75-55

3. PERIODIC TESTS PERFORMED 6

PT-39
PT-12
PT-22.4A
PT-22.4C
PT-46
PT-16.4

UNIT 1-MAY 1978

(MAINTENANCE OF SAFETY RELATED SYSTEMS DURING OUTAGE OR REDUCED POWER PERIODS)

MAINTENANCE	SYS	COMP	MARKNO	SUMMARY	WKPERF	U	WK	TOTMNTH
05/02/78	SI	MOV	MOV-1866B	PACKING LEAK	ADJUSTED PACKING	1	101e5940	2
05/02/78	SI	MOV	MOV-1866C	PACKING LEAK	ADJUSTED PACKING	1	101e5940	2
05/02/78	SI	MOV	MOV-1866D	PACKING LEAK	ADJUSTED PACKING	1	101e5950	2
05/02/78	SI	MOV	MOV-1866E	PACKING LEAK	ADJUSTED PACKING	1	101e5960	2
05/02/78	SI	MOV	MOV-1866F	PACKING LEAK	ADJUSTED PACKING	1	101e5970	2
05/02/78	SI	MOV	MOV-1866A	PACKING LEAK	ADJUSTED PACKING	1	101e5980	2
05/02/78	CH	VALVE	1-CH-100	LEAKS BY	STOPPED LEAK	1	803960400	4
05/03/78	DG	VALVE	1-DG-50	REPLACE DIAPHRAM	REPLACED DIAPHRAGM	1	10104530	7
05/03/78	DG	VALVE	1-DG-49	REPLACE DIAPHRAM	REPLACED DIAPHRAGM	1	10104640	7
05/03/78	RH	MOV	MOV1701	INSPECT PACKING GLAND STUDS AND	INSPECTED GLAND STUDS-SAT	1	801250829	4
05/03/78	RH	MOV	MOV-1700	INSPECT PACKING GLAND STUDS AND	WILL REPLACE BAD STUDS DURING REPACK	1	801250830	4
05/03/78	EE	VALVE	TK-4	REFIEF VALVE ON AIR TANK 4 NEEDS	INSTALLED NEW VALVE	1	804191540	9
05/03/78	RC	SG	1-RC-E-1A	INSPECT 6 IN HAND HOLES	COMPLETED	1	804260937	45
05/03/78	RC	SG	1-RC-E-1B	INSPECT 6 IN HAND HOLES	COMPLETED	1	804260938	144
05/03/78	RC	SG	1-RC-E-1C	INSPECT 6 IN HAND HOLES	COMPLETED	1	804260939	199
05/04/78	CH	VALVE	1-CH-210	DIAPHRAM LEAKS	REPLACED DIAPHRAGM	1	10186220	12
05/04/78	HSS	SNUBBER		PT 39	COMPLETED PT 39 SAT	1	804240825	113
05/05/78	CS	PUMP	1-CS-P-2B	BEARING NOISE	NOISE IN CK VLV NOT PUMP	1	10186700	1
05/05/78	SI	PIPING	FE1943	FLANGES LEAK BORIC ACID	REPLACED GASKETS	1	804301328	27
05/06/78	CH	VALVE	1-CH-392	REPLACE DIAPHRAMS (GRINNEL)	REPLACED DIAPHRAGM	1	10181400	5
05/06/78	CH	VALVE	1-CH-168	REPLACE DIAPHRAM (GRINNELL)	REPLACED DIAPHRAGM	1	10181570	5
05/06/78	CH	VALVE	1-CH-171	REPLACE DIAPHRAM (GRINNELL)	REPLACED DIAPHRAGM	1	10181580	5
05/06/78	IA	PIPING	PI-1A-104	REINSTALL AIR LINE TO LEAK OFF POT	INSTALLED AIR LINE	1	804221606	33
05/06/78	CH	VALVE	1-CH-96	REPLACE DIAPHRAGM	CHANGED DIAPHRAGM	1	805021352	7
05/06/78	CH	VALVE	1-CH-106	REPLACE DIAPHRAGM	CHANGED DIAPHRAGM	1	805021356	5
05/06/78	CH	VALVE	1-CH-107	REPLACE DIAPHRAGM	CHANGED DIAPHRAGM	1	805021358	5
05/08/78	CH	VALVE	1-CH-208	DIAPHRAM LEAKS	VOID	1	10186210	0
05/08/78	SI	MOV	MOV1890A	NO MANUAL ENGAGE LEVER-INSTALL	VOID	1	804240830	0
05/08/78	CH	PUMP	1-CH-P-2D	BROKEN COUPLING	MADE NEW SHAFT SLEEVE+PMP SIDE CPLIN	1	805052330	61
05/09/78	SI	MOV	MOV-1865A	BODY TO BONNET LEAK	COMPLETED	1	804261307	10
05/09/78	BR	VALVE	1-BR-1	REPLACE DIAPHRAGM	CHANGED DIAPHRAGM	1	805061045	4
05/09/78	BR	VALVE	1-BR-234	REPLACE DIAPHRAGM	REPLACED DIAPHRAGM	1	805062100	2
05/10/78	CS	VALVE	1-CS-77	REPLACE DIAPHRAGM	REPLACED DIAPHRAGM	1	805061105	8
05/10/78	CS	VALVE	1-CS-76	REPLACE DIAPHRAGM	REPLACED DIAPHRAGM	1	805061106	8
05/10/78	CS	VALVE	1-CS-74	REPLACE DIAPHRAGM	REPLACED DIAPHRAGM	1	805061107	8
05/10/78	CS	VALVE	1-CS-72	REPLACE DIAPHRAGM	REPLACED DIAPHRAGM	1	805061108	8
05/11/78	RS	HX	1-RS-E-1C	REMOVE SW SUPPLY ELBOW FOR HX INSP	INSPECTED SW SIDE	1	802171110	188
05/11/78	BR	VALVE	1-BR-2	DIAPHRAM LEAK (LEAKS OUT OF STEM)	VOID	1	803106510	0
05/11/78	RC	SG	1-RC-E-1C	REMOVE/INSTALL SEC MANWAYS	COMPLETED	1	804260936	302
05/11/78	CR	CRANE	1-CR-1	CHECK OUT POLAR CRANE	COMPLETED NOT WORK	1	804261305	336
05/11/78	RH	MOV	MOVRH100	BODY TO BONNET LEAK REPAIR FOR PT16.	REPLACED BONNET GASKET	1	804221604	120
05/11/78	CS	MOV	MOV-CS-101C	EXCESSIVE LEAKAGE ON PT 16.4(VLV PIT	REPAIRED VALVE	1	805060915	198
05/11/78	CS	MOV	MOV-CS-101D	EXCESSIVE LEAKAGE ON PT 16.4(VLV PIT	REPAIRED VALVE	1	805060916	222
05/11/78	CS	MOV	MOV-CS-101A	EXCESSIVE LEAKAGE ON PT 16.4(VLV PIT	REPAIRED VALVE	1	805060920	198
05/11/78	CS	MOV	MOV-CS-101B	EXCESSIVE LEAKAGE ON PT 16.4(VLV PIT	REPAIRED VALVE	1	805060921	199
05/11/78	BR	VALVE	1-BR-2	REPLACE DIAPHRAGM	CHANGED DIAPHRAGM	1	805061046	54
05/11/78	CS	VALVE	1-CS-48	REPLACE DIAPHRAGM	REPLACED DIAPHRAGM	1	805061109	6

UNIT 1-MAY 1978
(MAINTENANCE OF SAFETY RELATED SYSTEMS DURING OUTAGE OR REDUCED POWER PERIODS)

RETSRVDT	SYS	COMP	MARKNO	SUMMARY	WKPERF	U	WO	TOTDWNTS
05/11/78	CS	VALVE	1-CS-47	REPLACE DIAPHRAGM	CHANGED DIAPHRAGM	1	805041110	21
05/11/78	CS	VALVE	1-CS-46	REPLACE DIAPHRAGM	CHANGED DIAPHRAGM	1	805041111	21
05/12/78	SI	VALVE	1-SI-174	EXCESSIVE LEAKAGE ON PT16.4	REPLACED VALVE	1	804241151	27
05/12/78	CV	VALVE	HCV-CV-100	EXCESSIVE LEAKAGE ON PT 16.4	SHIMED BALL DISC SEAL	1	805040925	49
05/12/78	CS	VALVE	1-CS-36	REPLACE DIAPHRAGM	REPLACED DIAPHRAGM	1	805041112	27
05/12/78	CS	VALVE	1-CS-35	REPLACE DIAPHRAGM	REPLACED DIAPHRAGM	1	805041113	27
05/12/78	CS	VALVE	1-CS-33	REPLACE DIAPHRAGM	REPLACED DIAPHRAGM	1	805041114	2
05/12/78	CS	VALVE	1-CS-28	REPLACE DIAPHRAGM	REPLACED DIAPHRAGM	1	805041116	66
05/12/78	CS	VALVE	1-CS-19	REPLACE DIAPHRAGM	REPLACED DIAPHRAGM	1	805041118	6
05/12/78	CS	VALVE	1-CS-30	REPLACE DIAPHRAGM	REPLACED DIAPHRAGM	1	805041121	2
05/12/78	CS	VALVE	1-CS-31	REPLACE DIAPHRAGM	REPLACED DIAPHRAGM	1	805041125	66
05/12/78	CS	VALVE	1-CS-18	REPLACE DIAPHRAGM	REPLACED DIAPHRAGM	1	805041126	16
05/13/78	RS	HX	1-RS-E-1B	INSTALL BLANKS ON RS INLET+OUTLETS	INSTALLED BLANKS×REMOVED BLANKS	1	802171101	484
05/13/78	RS	HX	1-RS-E-1A	INSTALL BLANKS ON RS INLET+OUTLETS	INSTALLED BLANKS×REMOVED BLANKS	1	802171104	484
05/14/78	HSS	SNUBBER	1-SHP-HSS-9+	REPLACE SEALS	REPLACED SEALS	1	804240820	272
05/14/78	RH	VALVE	MOV1700	REPACK AND REPLACE GLAND STUDS	REPACKED+REPLACED STUFFING BOX	1	805111430	20
05/15/78	RS	PIPING	1-RS-E-1D	REMOVE SW SUPPLY ELBOW FOR HX INSP	VOID	1	802171113	0
05/15/78	SI	TANK	1-SI-TK-2	REMOVE COUPLINGS FOR INSPECTION+	REMOVED COUPLINGS	1	805041300	149
05/15/78	CH	VALVE	1-CH-309	BODY TO BONNET LEAK 16.4	LAPPED VALVE+REPLACED GASKET	1	805111015	30
05/15/78	CH	VALVE	1-CH-309	EXCESSIVE LEAKAGE ON PT 16.4	VOID	1	805120831	0
05/16/78	SI	VALVE	1-SI-86	PACKING LEAK	COMPLETED	1	802041446	305
05/16/78	SI	VALVE	1-SI-87	PACKING LEAK	REPACKED VALVE	1	802041447	305
05/16/78	IC	THIMBLES		RETRACTLINSERT FLUX MAPPING THIMBLES	RETRACTED/REINSERTED FLUX MAP THIMBL	1	804201301	528
05/16/78	RC	VALVE	PCV-1456	LEAKS THRU BADLY	LAPPED SEATS	1	804211427	129
05/16/78	RC	VALVE	PCV-1455C	LEAKS THRU BADLY	REPAIRED LEAK	1	804211428	20
05/16/78	RC	VALVE		PERFORM PT 12 ON PZR RELIEF VALVES	TEST SATISFACTORY	1	805110233	104
05/17/78	RS	PIPING	MOV-RS-155	INSTALL+REMOVE TEST FLANGES(PT16.4)	INSTALLED BLANKS+REMOVED BLANKS	1	8021705	571
05/17/78	SI	REL VLV	1-SI-RV-1893	VALVE LEAKS THROUGH	REPLACED DISC+SPRING	1	1011 3310	0
05/17/78	BR	VALVE	PCV-BR-131	STEM AND BODY LEAKS	REPACKED VALVE	1	803010200	30
05/17/78	SI	MOV	MOV1869B	EXCESSIVE LEAKAGE ON PT 16.4	VALVE BEYOND REPAIR	1	804240859	556
05/17/78	SI	PIPING		REMOVE OLD MOV1862 GLAND LEAKOFF	REMOVED PIPE	1	805120830	19
05/17/78	CH	PIPING	CH-81-1503	DISCHARGE FLANGE LEAK	NOT LEAKING	1	805141516	5
05/18/78	RC	VALVE	1-RC-79	PACKING LEAK C LOOP	VOID	1	101.5390	0
05/18/78	RS	PIPING	1-RS-E-1B	REMOVE SW SUPPLY ELBOW FOR HX INSPEC	VOID	1	802171111	0
05/18/78	RS	PIPING	1-RS-E-1A	REMOVE SW SUPPLY ELBOW FOR INSP	VOID	1	802171112	0
05/18/78	BR	VALVE	1-BR-3	REPLACE DIAPHRAGM	REPLACED DIAPHRAGM	1	805041047	212
05/18/78	BR	VALVE	1-BR-4	REPLACE DIAPHRAGM	REPLACED DIAPHRAGM	1	805041048	212
05/18/78	CS	VALVE	1-CS-79	BODY BOLT MISSING	REPLACED MISSING BOLT	1	805031546	23
05/18/78	CH	PUMP	1-CH-P-2B	PUMP COUPLING LOOSE	MADE NEW SLEEVE FOR SHAFT+INSTALLED	1	805170145	6
05/19/78	RC	VALVE	1-RC-102	REPACK	COMPLETED	1	10165220	6
05/19/78	CS	PUMP	1-CS-P-3	LUBE OIL SEAL+PUMP SEAL LEAKS	REPLACED MECHANICAL SEAL	1	805160820	6
05/19/78	CH	MOV	MOV-1287B	PACKING LEAK	ADJUSTED PACKING	1	805170603	1
05/20/78	RS			WORK RX CAVITY SEALS FOR REFUELING	COMPLETED	1	804201250	0
05/20/78	RS	VALVE	1-RS-17	PACKING LEAK	REPACKED	1	805030055	394
05/20/78	VG	VALVE	TV-VG-109B	EXCESSIVE LEAKAGE ON PT 16.4	REPAIRED LEAK	1	805140800	37
05/20/78	VG	VALVE	TV-VG-109A	EXCESSIVE LEAKAGE ON PT 16.4	REPAIRED LEAK	1	805150800	37
05/20/78	SS	VALVE	TV-SS-103	EXCESSIVE LEAKAGE ON PT 16.4	REPAIRED VALVE	1	805150801	76

UNIT 1-MAY 1978
(MAINTENANCE OF SAFETY RELATED SYSTEMS DURING OUTAGE OR REDUCED POWER PERIODS)

METSENVDT	SYS	COMP	MARKNO	SUMMARY	WKPERF	U	WR	TOTDWRTS
05/20/78	CH	PIPING	1-CH-375	RENEW FLEX AND PUT FLANGE BACK ON	REPLACED FLEX GASKET	1	8051?07?30	33
05/21/78	SI	VALVE	1-SI-234	EXCESSIVE LEAKAGE PT 16.4		1	8051?0801	0
05/22/78	CH	PUMP	1-CH-P-1B	VARIOUS LUBE OIL LEAKS-BEARING CAP	TIGHTENED BEARING CAP	1	10165110	624
05/22/78	SI	MOV	MOV1890C	PACKING LEAK REPAIR FOR PT 16.4	CLEAN PACKING GLAND + ADJUSTED	1	8042?1601	175
05/22/78	SI	MOV	MOV1862B	LEAKS THRU	ADJUSTED PLUG VALVE	1	8042?1602	166
05/22/78	SI	MOV	MOV1862A	LEAKS THRU	ADJUSTED PLUG VALVE	1	8042?1603	168
05/22/78	SI	MOV	MOV1885C	BAD PACKING LEAK	ADJUSTED PACKING	1	8042?1605	210
05/22/78	SI	MOV	MOV1864A	BODY TO BONNET LEAK+PACKING LEAK	ADJUSTED PACKING+TIGHTENED PACKING	1	8042?0800	166
05/22/78	SI	MOV	MOV-1864B	VALVE HAS BODY TO BONNET +PACKING	ADJUSTED PACKING +TIGHTENED PIPING	1	8050?1301	166
05/23/78	RC	RX VESS		REMOVE/REINSTALL VESS HD FOR REFUEL	VESSEL HEAD REMOVE+REINSTALLED	1	8041?1455	690
05/23/78	SI	MOV	MOV1860B	BODY TO BONNET AND PACKING LEAK	REPAIRED VALVE	1	8050?1608	161
05/23/78	CH	VALVE	1-CH-365	PACKING LEAK	REPACKED VALVE	1	8052?1440	24
05/24/78	BR	VALVE	SOV-BR-101C	VENTS CONTINOUSLY	REBUILT VALVE	1	6031?0511	201
05/24/78	CH	VALVE	HCV-1310A	PACKING LEAK	REPACKED	1	8052?1441	96
05/26/78	RC	VALVE	1-RC-21	PACKING LEAK A LOOP	MADE NEW SPLIT RINGS+REPACKED	1	10165410	249
05/26/78	RD	SNUBBER	1-RD-HSS-09	FUNCTIONAL TEST	REPLACED SNUBBER	1	8052?0805	24
05/30/78	VS	MOV	MOV-VS-100	INSTALL TESTING FLANGES FOR PT 16.4	INSTALLED/REMOVED BLANK FLANGE	1	8031?0423	888
05/30/78	RC	VALVE	PCV-1455C	LEAK AROUND EDGE OF DIAPHRAM	REPLACED DIAPHRAGM	1	8051?1355	3
05/30/78	SS	VALVE	TV-SS-103	LEAKS THRU-UNSAT FOR PT 16.4	VOID	1	8052?1446	0
05/31/78	RC	SG	1-RC-E-1A	REMOVE/REPALCE 6 IN. HAND HOLE	REMOVED/REPLACED HANDHOLE COVERS	1	8052?1345	127
DEPT TOTAL								******

MAY, 1978

MONTHLY OPERATING SUPPLEMENT SHEET
MECHANICAL MAINTENANCE

UNIT 2

1. MAINTENANCE ORDERS COMPLETED SAFETY RELATED ITEMS 10

2. DESIGN CHANGES BEING WORKED DC-77-19, 74-44, 78-10, 76-30, 77-29.

3. PERIODIC TESTS PERFORMED 2

PT-39
PT-39.1

UNIT 2-MAY 1978

(MAINTENANCE OF SAFETY RELATED SYSTEMS DURING OUTAGE OR REDUCED POWER PERIODS)

RPTSeRVDT	SYS	COMP	MAINNO	SUMMARY	WKPERF	U	HR	TOTMNTS
05/26/78	CH	VALVE	HCV-2310A	PACKING LEAK (ADJUST)	TIGHTED PACKING	2	8052?1350	8
05/26/78	CH	VALVE	HCV-2311	PACKING LEAK (ADJUST)	TIGHTED PACKING	2	8052?1355	8
05/26/78	CH	VALVE	2-CH-316	ADJ PACKING	TIGHTED PACKING	2	8052?1400	8
05/26/78	RC	VALVE	2-RC-51	ADJUST PACKING	TIGHTENED PACKING	2	8052?1401	12
05/26/78	RC	VALVE	2-RC-45	ADJUST PACKING	TIGHTENED PACKING	2	8052?1405	16
05/27/78	RS	MOV	MOV-RS-256B	INSPECT-INSTALL SPECTACLE FLANGE	INSPECTED VALVE	2	8052?1540	56
05/29/78	CS	MOV	MOV-CS-201B	BLANK FOR PT 16.4 TEST	INSTALLED/REMOVED BLANK FLANGES	2	8052?1006	96
05/29/78	CS	MOV	MOV-CS-201A	OPEN+INSPECT	CLEANED+LAPPED SEATS	2	8052?1025	93
05/29/78	CS	MOV	MOV-CS-201A	INSTALL BLANK FLANGE FOR 16.4 TEST	INSTALLED/REMOVED BLANK FLANGES	2	8052?1026	93
05/29/78	CS	MOV	MOV-CS-201B	INSPECT (@50F 450 LBS)	CLEANED+LAPPED SEATS	2	8052?1004	96
DEPT TOTAL								486

UNIT 1

MONTHLY OPERATING SUPPLEMENT SHEET
ELECTRICAL MAINTENANCE
MAY, 1978

1. MAINTENANCE ORDERS COMPLETED SAFETY RELATED ITEMS 70

2. DESIGN CHANGES BEING WORKED DC-77-08, DC-76-14A, DC-76-36, DC-77-02, DC-78-01, DC-74-73, DC-76-29, DC-76-30.

3. PERIODIC TEST PERFORMED 24

PT-34 (5)
PT-23.1A (5)
PT-23.6 (5)
PT-24.4B
PT-23.3
PT-31.3
PT-24.6
PT-31.2
PT-27
PT-23.1
PT-23.2
PT-24.5A

UNIT 1-MAY 1978
(MAINTENANCE OF SAFETY RELATED SYSTEMS DURING OUTAGE OR REDUCED POWER PERIODS)

ENTSERVDT	SYS	COMP	MARKNO	SUMMARY	PAPERF	U	MR	TOTMNTS
05/01/78	VS	FAN MTR	1-VS-F-60A	INSPECT MOTOR	TESTED+INSPECTED	1	8041/1203	216
05/01/78	VS	FAN MTR	1-VS-F-60D	INSPECT MOTOR	TESTED+INSPECTED	1	8041/1205	216
05/02/78	VS	FAN MTR	1-VS-F-1B	INSPECT MOTOR	CHECKED	1	8041/1201	155
05/02/78	VS	FAN MTR	1-VS F-1C	INSPECT MOTOR	CHECKED SAT	1	8041/1202	131
05/02/78	FH	MANIP CR		INSPECT MANIP CRANE+TRASFER SYS	ASSISTED TECH REP	1	8041/0812	160
05/02/78	GW	RECOMB	B	PMS	CLEANED+CHECKED UNIT	1	8041/0812	104
05/02/78	GW	RECOMB	A	PMS	CLEANED+CHECKED	1	8041/0813	106
05/05/78	SI	HT	PHL10CKT2	LOW TEMP ALARM	REPLACED HEAT TAPE	1	8050/0455	15
05/07/78	BR	MOV	MOV-BR-100A	CLEAN+INSPECT	CLEANED+INSPECTED	1	8050/0810	9
05/07/78	CH	HT	PHL8CKT26	CHECK OUT ALARM THERMOSTAT	REPLACED THERMOSTAT	1	8050/1130	6
05/08/78	EPCR	BREAKER		PMS	CLEANED+INSPECTED	1	8041/0816	362
05/08/78	EPCR	BREAKER		PMS	CLEANED INSPECTED+TESTED	1	8041/0817	362
05/08/78	EPCR	BREAKER		PMS	CLEANED INSPECTED+TESTED	1	8041/0818	362
05/08/78	EPCR	BREAKER		PMS	CLEANED+INSPECTED	1	8041/0819	362
05/08/78	CH	MOV	MOV-1286A	DISCONNECT POWER SUPPLY FOR MECHANIC	VOID	1	8050/1310	0
05/08/78	CH	MOV	MOV-1287A	DISCONNET POWER SUPPLY FOR MECHANIC	VOID	1	8050/1315	0
05/08/78	CH	MOV	MOV1381	WILL NOT SHUT ELECTRICALLY-NEED	REPLACED TORQUE SWITCH	1	8050/1700	7
05/09/78	MS	MOV	MOV-MRV-101C	CLEAN + INSPECT	CLEANED+INSPECTED	1	8042/0731	312
05/09/78	RS	MOV	MOV-RS-156B	DOES NOT OPERATE ELECTRICALLY	INSPECTED-REFERRED TO MECHS	1	8050/1545	5
05/10/78	VS	FAN MTR	1-VS-F-3A	FAN 3A OVERLOAD WILL NOT RESET	REPLACED MOTOR+FAN	1	8030/1950	1464
05/10/78	CH	MOV	MOV-1289A	CLEAN+INSPECT	CLEANED INSPECTED+TESTED	1	8050/0838	20
05/10/78	RP	RELAY	XB1590	REPLACE RELAY RX TRIP BREAKER	REPLACED RELAY	1	8050/1200	24
05/11/78	VS	FAN MTR	1-VS-F-3B	PMS	CHECKED SAT	1	8041/0807	18
05/11/78	CS	MOV	MOV-CS-101B	CLEAN+INSPECT	CHECKED	1	8050/0820	35
05/11/78	CS	MOV	MOV-CS-101A	CLEAN+INSPECT	CHECKED	1	8050/0821	35
05/12/78	VS	FAN MTR	1-VS-F-3A	PMS	VOID	1	8041/0808	0
05/13/78	RS	MOV	RS-156B	CLEAN+INSPECT	CLEANED AND INSPECTED SET LIMITS	1	8050/1026	33
05/15/78	CS	MOV	MOV-CS-102B	CLEAN+INSPECT	INSPECTED+TESTED	1	8050/0817	190
05/15/78	CS	MOV	MOV-CS-102A	CLEAN+INSPECT	TESTED+INSPECTED	1	8050/0818	190
05/15/78	CS	MOV	MOV-CS-101C	ADJUST LIMIT TORQUE	NO PROBLEM FOUND	1	8050/0737	240
05/16/78	EPCR	CRDM		DISC PL RODS+TAKE RESISTANCE READING	TOOK RESISTANCE READINGS	1	8041/0807	577
05/16/78	RH	EMP MTR	1-RH-F-1B	INSP+CHANGE OIL	PERFORMED EMP-P-LU-28	1	8041/0822	148
05/18/78	SS	VALVE	TV-SS-104A	DOES NOT OPERATE FROM CONTROL ROOM	CHECKED VALVE SATISFACTORY	1	8051/1411	23
05/20/78	RC	FAN MTR		PMS	CLEANED+INSPECTED SAT	1	8041/0811	72
05/22/78	VS	FAN MTR	1-VS-F-60C	INSPECT MOTOR	REPLACED BEARINGS-CONNECTED-TESTED	1	8041/1204	718
05/22/78	VS	FAN MTR	1-VS-F-60E	INSPECT MOTOR	REPLACED BEARINGS-CONNECTED-TESTED	1	8041/1206	718
05/22/78	MS			EMER HATCH LIMIT SW BROKE	FOUND NO PROBLEM	1	8042/1539	216
05/22/78	CS	MOV	MOV-CS-101D	CLEAN+INSPECT	CLEANED+INSPECTED+SET TORQUE SW	1	8050/0819	300
05/22/78	CS	MOV	MOV-CS-101C	CLEAN+INSPECT	CLEANED+INSPECTED+SET TORQUE SW	1	8050/0824	300
05/22/78	EPH	BREAKER	1-CH-P-2D	REPLACE SOLDER BOTS IN BREAKER	VOID	1	8051/1436	0
05/24/78	EPCR	CRDM RPT		DISC RECONNECT READ OUT	DISCONNECTED-RECONNECTED+TESTED	1	8041/0808	720
05/25/78	CH	MOV	MOV-1286A	CLEAN+INSPECT	DISCONNECTED-RECONNECTED+TESTED	1	8050/0832	456
05/26/78	CH	MOV	MOV-1275A	CLEAN+INSPECT	CLEANED-INSPECTED+TESTED	1	8050/0829	389
05/26/78	CH	MOV	MOV-1275C	CLEAN+INSPECT	CLEANED-INSPECTED+TESTED	1	8050/0831	389
05/27/78	EW	MOV	MOV-EW-151E	CLEAN+INSPECT	DISCONNECTED RECONNECTED+TESTED	1	8050/1123	576
05/27/78	EW	MOV	MOV-EW-151C	CLEAN+INSPECT	DISCONNECTED-RECONNECTED+TESTED	1	8050/1125	576
05/27/78	EW	MOV	MOV-EW-151B	CLEAN+INSPECT	DISCONNECTED RECONNECTED+TESTED	1	8050/1126	576

UNIT 1-MAY 1978

(MAINTENANCE OF SAFETY RELATED SYSTEMS DURING OUTAGE OR REDUCED POWER PERIODS)

LETSEAVUT	SYS	COMP	MARKNO	SUMMARY	WKPERF	U	HR	TOTDWTTM
05/27/78	CH	MOV	MOV-1270A	CLEAN+INSPECT	CLEANED+INSPECTED	1	8056040812	476
05/27/78	CH	MOV	MOV-1269B	CLEAN+INSPECT	CLEANED+INSPECTED	1	8056040819	476
05/27/78	CH	MOV	MOV-1269A	CLEAN+INSPECT	CLEANED+INSPECTED	1	8056040814	476
05/27/78	CH	MOV	MOV-1267B	CLEAN+INSPECT	CLEANED INSPECTED+TESTED	1	8056040815	432
05/27/78	CH	MOV	MOV-1267A	CLEAN+INSPECT	CLEANED INSPECTED+TESTED	1	8056040816	432
05/27/78	CH	MOV	MOV-1270B	CLEAN+INSPECT	CLEANED-TESTED+INSPECTED	1	8056040828	413
05/27/78	CH	MOV	MOV-1266C	CLEAN+INSPECT	CLEANED TESTED+INSPECTED	1	8056040834	413
05/27/78	CH	MOV	MOV-1287B	CLEAN+INSPECT	CLEANED INSPECTED+TESTED	1	8056040836	413
05/27/78	CH	MOV	MOV-1289B	CLEAN+INSPECT	CLEANED+TESTED	1	8056040839	413
05/27/78	SI	MOV	1860B	CLEAN+INSPECT	DISCONNECTED+CONNECTED+INSPECTED	1	8056091014	240
05/28/78	SI	MOV	1890C	CLEAN+INSPECT	CLEANED INSPECTED+TESTED	1	8056091005	11
05/29/78	SI	MOV	1869B	CLEAN+INSPECT	PERFORMED UNP-P-MOV-45	1	8056091011	135
05/29/78	RS	MOV	MOV-RS-156B	SET LIMIT SWITCH	SET LIMITS	1	8056091406	68
05/30/78	RC	MOV	MOV-1536	CLEAN+INSPECT	CLEANED INSPECTED+TESTED	1	8056011115	384
05/30/78	VS	MOV	VS-101	CLEAN+INSPECT	CLEANED INSPECTED+TESTED	1	8056091002	59
05/30/78	SI	MOV	1890S	CLEAN+INSPECT	CLEANED INSPECTED+TESTED	1	8056091007	59
05/30/78	SI	MOV	1885C	CLEAN+INSPECT	CLEANED INSPECTED+TESTED	1	8056091008	59
05/30/78	SI	MOV	1869A	CLEAN+INSPECT	CLEANED INSPECTED+TESTED	1	8056091012	48
05/30/78	SI	MOV	1885B	CLEAN+INSPECT	CLEANED INSPECTED+TESTED	1	8056091300	59
05/31/78	CH	MOV	MOV-LCV-1115	CLEAN+INSPECT	CLEANED INSPECTED+TESTED	1	8056091030	77
05/31/78	CH	MOV	MOV-LCV-1115	CLEAN+INSPECT	CLEANED INSPECTED+TESTED	1	8056091031	77
05/31/78	CH	MOV	MOV-LCV-1115	CLEAN+INSPECT	CLEANED INSPECTED+TESTED	1	8056091032	77
05/31/78	CH	MOV	MOV-LCV-1115	CLEAN+INSPECT	CLEANED INSPECTED+TESTED	1	8056091415	77
DEPT TOTAL								******

UNIT 2

MONTHLY OPERATING SUPPLEMENT SHEET
ELECTRICAL MAINTENANCE

MAY, 1978

1. MAINTENANCE ORDERS COMPLETED SAFETY RELATED ITEMS 5

2. DESIGN CHANGES BEING WORKED DC-76-30

3. PERIODIC TEST PERFORMED 6

PT-34 (4)
PT-23.1
PT-27

DEPT=ELEC

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UNIT 2-MAY 1978

(MAINTENANCE OF SAFETY RELATED SYSTEMS DURING OUTAGE OR REDUCED POWER PERIODS)

MAINTENANCE	SYS	COMP	MARKNO	SUMMARY	WKPERF	U	WR	TOTMNTH
05/26/78	EPH	BREAKER	25H4	SET AGASTAT TO 50+10-0 SECONDS	TESTED+ADJUSTED	2	8056[illegible]1605	14
05/26/78	EPH	BREAKER	25J4	SET AGASTAT TO 50 + 10 -0 SECONDS	TESTED+ADJUSTED	2	8056[illegible]1606	14
05/27/78	MS	MOV	MOV-MS-256B	CHANGE OPERATOR TO LIMIT CLOSED	REMOVED JUMPER FROM LSB	2	8059[illegible]6920	24
05/29/78	MD	VALVE	TV-MD-200A	VALVE WONT OPEN-LIMT SWITCH PROBLEM	ADJUSTED LIMIT SWITCH	2	8059[illegible]0906	71
05/29/78	CS	MOV	MOV-CS-201B	RESET LIMITS AFTER INSPECTION	SET LIMIT SWITCHES+CYCLED	2	8059[illegible]1605	49
DEPT TOTAL								172

UNIT 1

MONTHLY OPERATING SUPPLEMENT SHEET
INSTRUMENT MAINTENANCE

MAY, 1978

1. MAINTENANCE ORDERS COMPLETED SAFETY RELATED ITEMS 7

2. DESIGN CHANGES BEING WORKED DC-77-08

3. PERIODIC TEST PERFORMED 34

UNIT 1-MAY 1978
(MAINTENANCE OF SAFETY RELATED SYSTEMS DURING OUTAGE OR REDUCED POWER PERS)

RPTS=RVDT	SYS	COMP	MARKNO	SUMMARY	WKPERF	Q	HR	TOTMNTM
05/04/78	CV	INST	PI-CV-101B(?	NEEDS CALIBRATING POSSIBLE FAILURE	REFUELING CAL COMPLETED	1	8042160930	272
05/09/78	EFCK	CONT		RODS STEP OUT BEFORE NECESSARY WITH	REALIGNED SYSTEM	1	8042160845	248
05/09/78	RM	ROTOMTR	RT-GW-101/10	ROTO METER BROKEN	REBUILT ROTOMETER	1	8042270746	193
05/09/78	GW	INST	RC-GW-101	FLOW METER BROKE	REBUILT ROTOMETER	1	8043011536	198
05/09/78	BR	CONT	L-1-BR-104A	FAILED HIGH	REPLACED LT-BR-104A	1	8050722245	9
05/09/78	BR	CONT	FCV-AS-110A	FAILS OPEN SLOWLY	REPAIRED OPEN INPUT TO CONTROLLER	1	8050723330	9
05/31/78	SS	VALVE	DC78-01	REPLACE TRIP VALVES-SEE LIST	REPLACED SOLENOID VALVES+TUBED UP	1	8041100854	1146
								2075

DEPT TOTAL

UNIT 2

MONTHLY OPERATING SUPPLEMENT SHEET
INSTRUMENT MAINTENANCE

MAY, 1978

1. MAINTENANCE ORDERS COMPLETED SAFETY RELATED ITEMS 0

2. DESIGN CHANGES BEING WORKED

3. PERIODIC TEST PERFORMED 34

HEALTH PHYSICS

MAY, 1978

There was no single release of radioactivity specifically associated with an outage that accounted for more than 10% of the allowable annual values in 10CFR20.

There were 3 individuals who received single radiation exposures specifically associated with Unit #1 Steam Generator work which accounted for more than 10% of the allowable annual values in 10CFR20.101.

REPORT OF RADIOACTIVE EFFLUENTS

Facility: Surry Power Station

DOCKET: 50-280 and 50-281

YEAR: 1978

I. LIQUID RELEASES

	UNITS	JANUARY	FEBRUARY	MARCH	APRIL	MAY
1. Gross Radioactivity (βγ)						
(a) Total Release	Curies	6.12E-1	5.14E-2	4.70E-2	1.63E-1	8.38E-2
(b) Avg. Concentration Released	μCi/ml	2.34E-9	2.41E-10	2.17E-10	6.86E-10	4.96E-10
(c) Maximum Concentration Released	μCi/ml	5.14E-9	3.47E-10	2.71E-10	5.67E-10	4.92E-10
2. Tritium						
(a) Total Released	Curies	9.27E+1	2.35E+1	1.11E+2	8.13E+1	2.71E+1
(b) Avg. Concentration Released	μCi/ml	3.54E-7	1.10E-7	5.12E-7	3.43E-7	1.61E-7
3. Dissolved Noble Gases						
(a) Total Release	Curies	2.38E-1	1.18E+0	3.67E-1	9.97E-1	1.06E-1
(b) Avg. Concentration Released	μCi/ml	9.08E-10	5.55E-9	1.69E-9	4.21E-9	6.25E-10
4. Gross Alpha Radioactivity						
(a) Total Released	Curies	1.16E-5	3.70E-7	1.86E-6	1.92E-5	1.62E-5
(b) Avg. Concentration Released	μCi/ml	4.43E-14	1.74E-15	8.58E-15	8.10E-14	9.60E-14
5. Vol. of Liquid to Disch. Canal	Liters	3.37E+7	7.17E+7	3.39E+7	2.83E+7	5.01E+7
6. Vol. of Dilution Water	Liters	2.62E+11	2.13E+11	2.17E+11	2.37E+11	1.69E+11
7. Isotopes Released MPC μCi/ml	Curies					
I-131 3×10^{-7}		1.42E-2	8.96E-3	1.02E-2	2.08E-2	4.52E-3
I-132 8×10^{-6}		1.71E-4	8.96E-4	4.20E-2	5.49E-4	1.88E-4
I-133 1×10^{-6}		3.72E-4	6.06E-4	4.39E-2	5.07E-3	*
I-134 2×10^{-5}		5.15E-4	5.33E-4	4.20E-2	*	*
I-135 4×10^{-6}		1.38E-4	6.70E-4	5.19E-2	5.16E-4	*
Cs-134 9×10^{-6}		1.73E-2	2.22E-2	1.76E-2	1.14E-2	8.47E-3
Cs-136 6×10^{-5}		*	1.35E-3	9.27E-5	*	*
Cs-137 2×10^{-5}		3.39E-2	4.65E-2	3.82E-2	2.14E-2	2.90E-2
Cs-138 -		2.22E-4	*	1.86E-2	*	*
Co-57 4×10^{-4}		1.54E-4	1.56E-4	1.64E-3	1.33E-4	7.60E-4
Co-58 9×10^{-5}		1.14E-1	2.54E-2	1.03E-1	1.40E-1	3.00E-1
Co-60 3×10^{-5}		1.03E-1	6.06E-2	8.13E-2	9.19E-2	2.33E-1
Mn-54 1×10^{-4}		6.94E-3	2.43E-3	5.21E-3	9.51E-3	2.69E-2
Na-24 3×10^{-5}		1.59E-2	2.54E-2	5.51E-1	4.70E-4	9.47E-5
Cr-51 2×10^{-3}		3.60E-2	6.16E-3	3.32E-2	3.97E-2	1.99E-1
Fe-59 5×10^{-5}		9.09E-4	1.51E-4	1.06E-4	*	7.51E-4
Nb-95 1×10^{-4}		3.51E-3	8.34E-4	3.01E-3	3.33E-3	1.42E-2
Ba-La-140 2×10^{-5}		1.81E-3	7.83E-4	9.25E-5	*	2.48E-5
Rb-88 -		*	1.36E-3	2.10E-3	*	*

FACILITY; Surry Power Station

REPORT OF RADIOACTIVE EFFLUENTS

DOCKET; 50-280 and 50-281

YEAR; 1978

I. LIQUID RELEASES (CON'T)

	UNITS	JANUARY	FEBRUARY	MARCH	APRIL	MAY		TOTAL	± Error
7. Isotopes Released μMPC Ci/ml	Curies								
Ce-141 9×10^{-5}		*	2.37E-4	1.97E-5	*	1.53E-4			
Ce-144 1×10^{-5}		*	*	*	*	5.36E-4			
Xe-133 3×10^{-6}		2.01E-1	1.00E-1	3.08E-1	9.49E-1	2.28E-2			
Xe-135 3×10^{-6}		3.62E-2	2.05E-2	3.24E-2	2.91E-2	1.66E-3			
Ar-41 3×10^{-6}		3.81E-5	9.31E-6	*	*	3.59E-4			
Sr-89 3×10^{-6}						-----			
Sr-90 3×10^{-7}						-----			
C-14 8×10^{-4}						-----			
8. Percent of 10CFR20	Percent	5.19E-2	3.71E-2	1.10E-1	1.72E-1	2.22E-2			
II. AIRBORNE RELEASES									
1. Total Noble Gases	Curies	9.47E+1	4.80E+2	1.95E+2	1.24E+3	9.61E+1			
2. Total Halogens	Curies	1.23E-4	2.90E-5	1.36E-4	5.34E-3	5.37E-2			
3. Total Particulate Gross Radioactivity (βγ)	Curies	1.93E-5	1.47E-6	1.61E-5	7.13E-5	1.29E-4			
4. Total Tritium	Curies	4.46E+0	4.33E+0	1.23E+2	6.79E+0	3.64E+0			
5. Total Particulate Gross Alpha Radioactivity	Curies	1.04E-6	7.69E-7	5.62E-7	1.57E-6	1.11E-5			
6. Maximum Noble Gas Release Rate	μCi/sec	6.37E+2	9.40E+2	1.50E+3	1.44E+4	6.51E+2			
7. Percent of Applicable Limit for Technical Specifications									
(a) Noble Gases	Percent	5.90E-2	3.46E-1	1.27E-1	8.21E-1	5.98E-2			
(b) Halogens	Percent	8.29E-5	3.38E-4	1.51E-3	5.65E-2	6.02E-1			
(c) Particulates	Percent	1.19E-3	2.30E-4	3.01E-4	9.96E-4	1.68E-3			
8. Isotopes Released:	Curies								
(a) Particulates									
Cs-134		2.04E-5	9.54E-7	7.20E-9	*	2.27E-6			
Cs-135		*	*	*	*	*			
Cs-137		1.53E-8	1.42E-6	2.14E-6	1.37E-6	7.41E-6			
Cs-138		*	2.17E-3	3.26E-3	*	*			
Co-58		3.05E-5	2.60E-6	1.33E-5	7.97E-5	4.72E-5			
Co-60		5.21E-5	1.36E-5	1.14E-5	4.87E-6	9.05E-5			
Mn-54		3.34E-6	5.75E-9	*	*	2.49E-6			
Fe-59		*	*	*	*	*			
Rb-88		8.11E-5	1.27E-5	1.57E-4	*	*			

FACILITY: Barry Power Station

REPORT OF RADIOACTIVE EFFLUENTS

DOCKET: 50-280 and 50-281

YEAR: 8

II. AIRBORNE RELEASES (CON'T)	UNITS	JANUARY	FEBRUARY	MARCH	APRIL	MAY
B. Isotopes Released (con't)	Curies					
(b) Halogens						
I-131		7.39E-6	2.72E-5	1.34E-4	4.88E-3	5.13E-2
I-132		1.04E-6	*	*	2.93E-4	2.64E-7
I-133		2.75E-6	1.81E-6	1.34E-7	1.68E-4	9.06E-9
I-134		*	*	*	*	*
I-135		*	*	1.78E-7	*	*
(c) Gases						
Xe-133		9.43E+1	4.67E+2	1.90E+2	1.20E+3	7.02E+1
Xe-133m		*	4.76E-1	7.38E-1	1.18E+1	7.30E-2
Xe-135		3.94E-1	1.13E+1	2.46E+0	2.16E+1	6.06E-3
Kr-85m		2.41E-4	4.27E-3	3.42E-2	*	*
Kr-85		*	7.07E-1	*	*	2.59E+1
Kr-87		*	*	3.95E-2	*	*
Kr-88		*	5.42E-3	6.67E-2	*	*
Ar-41		*	9.87E-3	6.40E-1	*	*
III. SOLID RADIOACTIVE WASTE DISPOSAL						
1. (a) Total Amount Solid Waste Packaged	FT^3	60 $ft.^3$	7.76E+2	7.21E+2	2.12E+3	3.89E+3
(b) Estimated Total Activity	Curies	1.625	1.12E+1	9.20E+1	1.32E+2	65.5
(c) Date of Shipment and Disposition		Barnwell, S.C.	Barnwell, S.C.	Barnwell, S.C.	Barnwell, S.C.	Barnwell, S.C.
		01-23-78	2-2-78 2-21-78 2-22-78	3-1-78 3-10-78 3-10-78 3-31-78	04-10-78 04-12-78 04-26-78 04-27-78	05-02-78 05-03-78 05-05-78 05-10-78 05-11-78 05-16-78 05-17-78 05-18-78 05-19-78 05-24-78 05-25-78

* SENSITIVITY DATA

1. Minimum Detectable Activity

a. Gross Alpha; 5.27E-9 µCi/ml
b. Tritium; 4.0E-6 µCi/ml
c. Strontium-89; less than 3.0E+1 pCi per total filter composite.
d. Strontium-90; less than 2.0E+0 pCi per total filter composite.
e. CO_2-14; less than 7.0E-10 µCi/ml.
f. Strontium-89; less than 9.0E-9 µCi/ml.
g. Strontium-90; less than 8.0E-10 µCi/ml.

2. Multichannel Analyzer - GeLi

a. Liquid and/or Radiogases - 100cc

Ba-La-140	2.0E-7
I-131	5.1E-8
Xe-133	5.4E-8
Xe-135	2.9E-8
Cs-137	9.2E-8
Cs-134	7.2E-8
Co-60	1.5E-7
Co-58	9.8E-8
Cr-51	3.8E-7
Mn-54	1.0E-7
Fe-59	2.4E-7
Ar-41	1.6E-7
I-134	1.1E-7
I-132	1.0E-7
Na-24	1.7E-7
I-133	6.9E-8
I-135	4.5E-7
Kr-85	1.36E-5
Kr-88	5.5E-8
Kr-87	5.3E-8
Kr-85m	2.3E-7
Xe-138	4.7E-9
Xe-135m	5.8E-8
Xe-133m	1.7E-7
Rb-88	8.5E-7

b. Radioiodines

I-131	2.3E-6
I-133	3.1E-6
I-132	4.7E-6
I-134	4.8E-6
I-135	2.0E-5

PROCEDURE DEVIATIONS REVIEWED BY STATION NUCLEAR SAFETY AND OPERATING COMMITTEE AFTER TIME LIMIT SPECIFIED IN TECHNICAL SPECIFICATIONS

MAY, 1978

Number	Unit	Title	Deviation
PT-26.4	1	Radiation Monitoring Equipment Test During Fuel Handling Operations	Step 5.2.4-Unable to verify alarm 1G1. Step 5.2.5-Unable to verify alarm 1G9. Step 5.3.4-Unable to verify alarm 1G1. Step 5.3.5-Unable to verify alarm 1G9. Step 5.4.4-Unable to verify alarm 1G1. Step 5.4.5-Unable to verify alarm 1G9.

This procedure was deviated 05-01-78 and reviewed by the Station Nuclear Safety and Operating Committee 05-18-78.

PT-24.1	1	Fire Protection Water Pump	Steps 5.12 through 5.17 and 6.1.2, not performed.

This procedure was deviated 05-09-78 and reviewed by the Station Nuclear Safety and Operating Committee 05-24-78.