

VIRGINIA ELECTRIC AND POWER COMPANY

SURRY POWER STATION

MONTHLY OPERATING REPORT

REPORT NO. 85-06.

APPROVED BY:

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STATION MANAGER

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11

| <u>Section</u>  | <u>Page</u> |
|---|-------------|
| Operating Data Report - Unit #1   | 1           |
| Operating Data Report - Unit #2   | 2           |
| Unit Shutdowns and power Reductions - Unit #1   | 3           |
| Unit Shutdowns and Power Reductions - Unit #2   | 4           |
| Load Reductions Due to Environmental Restrictions - Unit #1   | 5           |
| Load Reductions Due to Environmental Restrictions - Unit #2   | 6           |
| Average Daily Unit Power Level - Unit #1  | 7           |
| Average Daily Unit Power Level - Unit #2  | 7           |
| Summary of Operating Experience   | 8 - 9       |
| Amendments to Facility License or Technical Specifications  | 10          |
| Facility Changes Requiring NRC Approval   | 11          |
| Facility Changes That Did Not Require NRC Approval  | 12 - 19     |
| Tests and Experiments Requiring NRC Approval  | 19A         |
| Tests and Experiments That Did Not Require NRC Approval   | 19A         |
| Other Changes, Tests and Experiments  | 20          |
| Chemistry Report  | 21          |
| Description of All Instances Where Thermal Discharge Limits Were Exceeded   | 22          |
| Fuel Handling   | 23 - 24     |
| Procedure Revisions That Changed the Operating Mode Described in the FSAR   | 25          |
| Description of Periodic Tests Which Were Not Completed Within the Time Limits Specified in Technical Specifications | 26          |

| <u>Section</u>   | <u>Page</u> |
|--|-------------|
| Maintenance of Safety Related Systems During Outage or<br>Reduced Power Periods - Unit #1 - Mechanical Maintenance | 27          |
| Maintenance of Safety Related Systems During Outage or<br>Reduced Power Periods - Unit #2 - Mechanical Maintenance | 28 - 43     |
| Maintenance of Safety Related Systems During Outage or<br>Reduced Power Periods - Unit #1 - Electrical Maintenance | 44          |
| Maintenance of Safety Related Systems During Outage or<br>Reduced Power Periods - Unit #2 - Electrical Maintenance | 45 - 59     |
| Maintenance of Safety Related Systems During Outage or<br>Reduced Power Periods - Unit #1 - Instrument Maintenance | 60          |
| Maintenance of Safety Related Systems During Outage or<br>Reduced Power Periods - Unit #2 - Instrument Maintenance | 61 - 67     |

## OPERATING DATA REPORT

DOCKET NO. 50-280  
 DATE 07-05-85  
 COMPLETED BY V.H. Jones  
 TELEPHONE (804) 357-3184

OPERATING STATUS

|   |                      |       |
|---|----------------------|-------|
| 1. Unit Name:   | Surrv Unit 1         | Notes |
| 2. Reporting Period:  | 06-01-85 to 06-30-85 |       |
| 3. Licensed Thermal Power (Mwt):  | 2441                 |       |
| 4. Nameplate Rating (Gross MWe):  |                      |       |
| 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: | N/A                  |       |

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      | 4343.0      | 109775.0    |
| 12. Number of Hours Reactor Was Critical                                       | 720.0      | 3927.8      | 68304.5     |
| 13. Reactor Reserve Shutdown Hours   | 0          | 0           | 3774.5      |
| 14. Hours Generator On-Line  | 720.0      | 3887.3      | 66896.4     |
| 15. Unit Reserve Shutdown Hours  | 0          | 0           | 3736.2      |
| 16. Gross Thermal Energy Generated (MWE)                                       | 1757187.5  | 8985407.6   | 154999584.7 |
| 17. Gross Electrical Energy Generated (MWE)                                    | 582765.0   | 3003155.0   | 49855118.0  |
| 18. Net Electrical Energy Generated (MWE)                                      | 555156.0   | 2856458.0   | 47268302.0  |
| 19. Unit Service Factor  | 100.0%     | 89.5%       | 60.9%       |
| 20. Unit Available Factor  | 100.0%     | 89.5%       | 64.3%       |
| 21. Unit Capacity Factor (Using MDC Net)                                       | 98.7%      | 84.2%       | 55.1%       |
| 22. Unit Capacity Factor (Using DER Net)                                       | 97.8%      | 83.5%       | 54.6%       |
| 23. Unit Forced Rate   | 0          | 2.7%        | 19.6%       |
| 24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): |            |             |             |
| Snubber/Maintenance - 9-13-85 - 10 days  |            |             |             |

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 07-05-85  
 COMPLETED BY V.H. Jones  
 TELEPHONE (804)357-3184

OPERATING STATUS

|  |             |
|--|-------------|
| 1. Unit Name: <u>Surry Unit 2</u>  | Notes _____ |
| 2. Reporting Period: <u>06-01-85 to 06-30-85</u>   |             |
| 3. Licensed Thermal Power (Mwt): <u>2441</u>   |             |
| 4. Nameplate Rating (Gross MWe): <u>847.5</u>  |             |
| 5. Design Electrical Rating (Net MWe): <u>775</u>  |             |
| 6. Maximum Dependable Capacity (Gross MWe): <u>811</u>   |             |
| 7. Maximum Dependable Capacity (Net MWe): <u>775</u>   |             |
| 8. If Changes Occur in Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reasons: <u>N/A</u> |             |

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>4343.0</u>    | <u>106655.0</u>    |
| 12. Number of Hours Reactor Was Critical  | <u>89.4</u>    | <u>1974.9</u>    | <u>67981.1</u>     |
| 13. Reactor Reserve Shutdown Hours  | <u>0</u>       | <u>0</u>         | <u>328.1</u>       |
| 14. Hours Generator On-Line   | <u>29.0</u>    | <u>1914.5</u>    | <u>66822.1</u>     |
| 15. Unit Reserve Shutdown Hours   | <u>0</u>       | <u>0</u>         | <u>0</u>           |
| 16. Gross Thermal Energy Generated (MWE)  | <u>19090.4</u> | <u>4484302.9</u> | <u>156482708.2</u> |
| 17. Gross Electrical Energy Generated (MWE)   | <u>3850.0</u>  | <u>1430405.0</u> | <u>50720879.0</u>  |
| 18. Net Electrical Energy Generated (MWE)   | <u>2720.0</u>  | <u>1356443.0</u> | <u>48072885.0</u>  |
| 19. Unit Service Factor   | <u>4.0%</u>    | <u>44.1%</u>     | <u>62.7%</u>       |
| 20. Unit Available Factor   | <u>4.0%</u>    | <u>44.1%</u>     | <u>62.7%</u>       |
| 21. Unit Capacity Factor (Using MDC Net)  | <u>1.0%</u>    | <u>40.3%</u>     | <u>58.2%</u>       |
| 22. Unit Capacity Factor (Using DER Net)  | <u>1.0%</u>    | <u>39.6%</u>     | <u>57.2%</u>       |
| 23. Unit Forced Rate  | <u>0</u>       | <u>0</u>         | <u>14.2%</u>       |
| 24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):<br><u>Snubber/Maintenance - 10-11-85 - 10 days</u> |                |                  |                    |

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

REPORT MONTH June, 1985

DOCKET NO. S0-280  
 UNIT NAME Surry 1  
 DATE 07-05-85  
 COMPLETED BY V. H. Jones  
 TELEPHONE (804) 357-3184

| No. | Date | Type <sup>1</sup> | Duration (Hours)            | Reason <sup>2</sup> | Method of Shutting Down Reactor <sup>3</sup> | Licensee Event Report # | System Code <sup>4</sup> | Component Code <sup>5</sup> | Cause & Corrective Action to Prevent Recurrence |
|-----|------|-------------------|-----------------------------|---------------------|--|-------------------------|--------------------------|-----------------------------|---|
|     |      |                   | NONE THIS REPORTING PERIOD. |                     |  |                         |                          |                             |   |

<sup>1</sup> F: Forced  
S: Scheduled

<sup>2</sup> Reason:  
A-Equipment Failure (Explain)  
B-Maintenance of Test  
C-Refuelling  
D-Regulatory Restriction  
E-Operator Training & License Examination  
F-Administrative  
G-Operational Error (Explain)  
H-Other (Explain)

<sup>3</sup> Method:  
1-Manual  
2-Manual Scram.  
3-Automatic Scram.  
4-Other (Explain)

<sup>4</sup> Exhibit G - Instructions for Preparation of Data Entry Sheets for Licensee Event Report (LER) File (NUREG-0161)

<sup>5</sup> Exhibit I - Same Source

# UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH June, 1985

DOCKET NO. S0-281  
 UNIT NAME Surry 2  
 DATE 07-05-85  
 COMPLETED BY V.H. Jones  
 TELEPHONE (804) 357-3184

| No.  | Date     | Type <sup>1</sup> | Duration (Hours) | Reason <sup>2</sup> | Method of Shutting Down Reactor <sup>3</sup> | Licensee Event Report # | System Code <sup>4</sup> | Component Code <sup>5</sup> | Cause & Corrective Action to Prevent Recurrence                    |
|------|----------|-------------------|------------------|---------------------|--|-------------------------|--------------------------|-----------------------------|--|
| 85-1 | 03-20-85 | S                 | 689.0            | H                   | 1  |                         |                          |                             | Unit is shutdown for refueling outage which commenced on 03-20-85. |
| 85-2 | 06-30-85 | S                 | 2.0              | B                   | 1  |                         |                          |                             | Unit was shutdown for turbine overspeed test.                      |

<sup>1</sup> F: Forced  
S: Scheduled

<sup>2</sup> 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)

<sup>3</sup> Method:  
 1-Manual  
 2-Manual Scram.  
 3-Automatic Scram.  
 4-Other (Explain)

<sup>4</sup> Exhibit G - Instructions for Preparation of Data Entry Sheets for Licensee Event Report (LER) File (NUREG-0161)

<sup>5</sup> Exhibit I - Same Source

### LOAD REDUCTIONS DUE TO ENVIRONMENTAL RESTRICTIONS

UNIT NO. 1

MONTH: June, 1985

[illegible]

LOAD REDUCTIONS DUE TO ENVIRONMENTAL RESTRICTIONSUNIT NO. 2MONTH: June - 1985

| <u>DATE</u>                | <u>TIME</u> | <u>HOURS</u> | <u>LOAD, MW</u> | <u>REDUCTIONS, MW</u> | <u>MWH</u> | <u>REASON</u> |
|----------------------------|-------------|--------------|-----------------|-----------------------|------------|---------------|
| NONE THIS REPORTING PERIOD |             |              |                 |                       |            |               |
| MONTHLY TOTAL              |             |              |                 |                       |            |               |

VEPLO AVERAGE DAILY UNIT POWER LEVEL      SURRY POWER STATION      JUNE 1985

DUCKET NO. 50-281  
DATE JUNE 1985  
COMPLETED BY V. JONES

UNIT TWO  
AVERAGE DAILY POWER LEVEL  
-MWE-NET

UNIT ONE  
AVERAGE DAILY POWER LEVEL  
-MWE-NET

| DAY | UNIT ONE<br>AVERAGE DAILY POWER LEVEL<br>-MWE-NET | UNIT TWO<br>AVERAGE DAILY POWER LEVEL<br>-MWE-NET |
|-----|---|---|
| 1   | 173.2   | 0.0   |
| 2   | 173.6   | 0.0   |
| 3   | 173.1   | 0.0   |
| 4   | 174.0   | 0.0   |
| 5   | 172.8   | 0.0   |
| 6   | 176.1   | 0.0   |
| 7   | 171.9   | 0.0   |
| 8   | 174.7   | 0.0   |
| 9   | 173.2   | 0.0   |
| 10  | 169.5   | 0.0   |
| 11  | 169.0   | 0.0   |
| 12  | 174.0   | 0.0   |
| 13  | 174.0   | 0.0   |
| 14  | 174.8   | 0.0   |
| 15  | 171.6   | 0.0   |
| 16  | 174.4   | 0.0   |
| 17  | 167.1   | 0.0   |
| 18  | 160.2   | 0.0   |
| 19  | 174.8   | 0.0   |
| 20  | 172.0   | 0.0   |
| 21  | 171.1   | 0.0   |
| 22  | 171.7   | 0.0   |
| 23  | 171.2   | 0.0   |
| 24  | 169.0   | 0.0   |
| 25  | 165.8   | 0.0   |
| 26  | 167.0   | 0.0   |
| 27  | 168.5   | 0.0   |
| 28  | 167.0   | 0.0   |
| 29  | 164.3   | 0.0   |
| 30  | 160.9   | 0.0   |
|     |   | 18.1  |
|     |   | 95.3  |

MONTH/YEAR June, 1985

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

|          |      |  |
|----------|------|--|
| 06-01-85 | 0000 | This reporting period begins with the unit at 100% power, 815 MW's |
| 06-27-85 | 1249 | The first spent fuel shipment to DOE/INEL is off site.             |
| 06-30-85 | 2400 | This reporting period ends with the unit at 100% power, 810 MW/s   |



SUMMARY OF OPERATING EXPERIENCEMONTH/YEAR June, 1985

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

|            |      |   |
|------------|------|---|
| 06-01-85   | 0000 | This reporting period begins with the unit at CSD, making preparations for the Type "A" test. |
| 06-08-85   | 0145 | Started Type "A" test.  |
| 06-10-85   | 0530 | Completed Type "A" test - satisfactory.   |
| 06-13-85   | 2253 | Started RCS fill and vent.  |
| 06-15-85   | 1138 | Commenced RCS depressurization and draining to repair MOV-2595.                               |
| 06-21-85   | 0350 | Completed work on MOV-2595. Commenced RCS fill and vent.                                      |
| - 06-21-85 | 1717 | Completed RCS fill and vent.  |
| 06-23-85   | 1735 | RCS > 200°F.  |
| 06-24-85   | 0540 | RCS > 350°F/450 psig.   |
| 06-24-85   | 2240 | Steam Generator Safety Valve sets.  |
| 06-26-85   | 0500 | Completed hot rod drops.  |
| 06-27-85   | 0634 | Reactor critical. Performing low power physics testing.                                       |
| 06-28-85   | 1640 | Completed low power physics testing.  |
| 06-29-85   | 1657 | Generator on the line.  |
| 06-29-85   | 1919 | Holding power at 25%, 150 MW's. Holding for chemistry and flux maps.                          |
| 06-30-85   | 0203 | Commenced rampdown for overspeed test.  |
| 06-30-85   | 0258 | Generator off the line.   |
| 06-30-85   | 0352 | Completed overspeed test.   |
| 06-30-85   | 0500 | Generator on the line.  |
| 06-30-85   | 0525 | Holding power at 27%, 140 MW's for chemistry.   |
| 06-30-85   | 2400 | This reporting period ends with the unit at 27% power, 140 MW's , holding for chemistry.      |



AMENDMENTS TO FACILITY LICENSE OR TECHNICAL SPECIFICATIONS

MONTH/YEAR June, 1985

None During This Reporting Period.

FACILITY CHANGES REQUIRING  
NRC APPROVAL

MONTH/YEAR JUNE, 1985

NONE DURING THIS REPORTING PERIOD

**FACILITY CHANGES THAT  
DID NOT REQUIRE NRC APPROVAL**

**DC- 81-116**      **Main Steam Piping Monoball Support Modification**      **Unit 2**

This design change added support steel to stiffen the existing monoball supports for the main steam piping.

**Summary of the Safety Analysis**

The modification of the Main Steam Piping Monoball supports will serve to enhance the capability of the supports to function as designed. This modification will not adversely affect any safety-related system or component.

**DC-82-36**      **Motor Operated Valve Rerate**      **Unit 2**

This design change rerated or replaced emergency motor-operated valve motors which are not capable of operating at 80 percent rated voltage. These MOV's were provided with new qualified motors, new motor actuator sets or torque switch limiter plates.

**Summary of Safety Analysis**

**Unit 2**

The operation of safety related equipment is not affected by this modification except to enhance the operation of equipment at reduced voltages.

**DC-82-38**      **MCC Control Transformer Replacement**      **Unit 2**

The internal characteristics of the Emergency MCC Control Transformers were a limiting condition to the voltage available for contractor coil "pick-up" required to energize safety-related MOV's. The characteristic of the replaced low-VA rated transformers could have, under certain low voltage scenarios, inhibited contactor coil pick-up of safety-related MOV's. This design change replaced certain units with higher VA transformers exhibiting more favorable characteristics. It will enhance the operation of safety related circuits at reduced voltage levels.

**FACILITY CHANGES THAT  
DID NOT REQUIRE NRC APPROVAL**

**DC-82-39****34.5kv Reactor Trip****Unit 2**

This design change improves the worst case 4160V emergency bus voltage profiles and ensures the starting of safety related motors under safeguards conditions. The three improvements are as follows: Tripping 34.5KV Switchyard Reactors, Instantaneous Reserve Station Services Transformer Load Tap Change Correction, and Blocking the Auto-Start of Large Non-Class IE Motors.

**Summary of Safety Analysis**

The modifications enhance the electrical distribution system by providing increased bus voltages during accident conditions, as well as enhancing the ability of Category I components to operate at reduced voltages.

**DC-83-09****Fuel Transfer Canal Blend Flange Replacement****Unit 2**

The fuel transfer tube blind flanges, bolts and gaskets were replaced with a yoke type closure mechanism. The yoke type closure mechanism consist of an adapter flange and flat closure head held together by upper and lower clamp yokes. The adapter flange was bolted to the existing flange and then seal welded to eliminate the need for gaskets at this joint.

**Summary of Safety Analysis**

The installation of the new yoke type closure mechanism and the remote test correction for the fuel transfer tube makes removal, re-installation, and testing of the fuel transfer tube closure mechanism simpler, less time consuming and thus less dose consuming.

**DC-83-14C****Spent Fuel Handling System Modifications Clean Water Supply - Unit 2**

This design change installed a new demineralizer water supply header and hose connections for the Fuel Building and Decontamination Building. This new supply header is tied into the discharge of the secondary plant demineralizers. Originally, hose connections were supplied from Primary Water Storage Tanks that contain a small amount of tritium activity. A tritium free source of demineralized water was needed for cask handling operations.

**FACILITY CHANGES THAT  
DID NOT REQUIRE NRC APPROVAL**

**Summary of Safety Analysis**

As a part of the total spent fuel handling system, this modification enables preparation of the spent fuel cask prior to shipment. No safety related equipment was affected or modified by this design change.

**DC-83-14D      Spent Fuel Handling System Modifications Decontamination Building  
Lighting and Fuel Building Crane Modifications      Unit 1 & 2**

This design change installed additional lighting fixtures to satisfy the lighting requirements in the spent fuel shipping cask decontamination areas and existing lighting fixtures were rearranged to prevent glare. A radio control system was installed on the crane for increased crane operator visibility. New bearings were installed in the block to prevent grease leakage and water collection. The existing hoist rope was replaced and the block was reconditioned.

**Summary of Safety Analysis**

As a part of the total spent fuel handling system, this modification enables preparation of the spent fuel cask prior to shipment. No safety related equipment was affected or modified by this design change.

**DC-83-36      Steam Generator Pressure and Rerate Monitoring Panel Installation      Unit 2**

This design change installed seismically qualified Steam Generator Pressure Transmitters with seismically supported tubing, valving, and conduit supports to provide Non-1E analog signals to a new Remote Monitoring Panel (RMP). Indication has been provided for 0-1400 Psig Pressure in Steam Generators 1A and 1B.

**Summary of Safety Analysis**

The modification enhances the availability of reactor parameter indication in the event of a fire.

**DC-83-42      Environmental Qualification For Containment High-Range Radiation  
Monitoring System (CHRRMS)      Unit 2**

This design change provides an environmentally qualified installation of CHRRMS in accordance with NUREG-0737, Appendix B. The conduit system was modified to provide a "sealed conduit system" between each high-range radiation detector and its electrical penetration. The installed "sealed system" meets the applicable environmental qualification criteria per IEEE-323-1974 and NUREG-0737.

**FACILITY CHANGES THAT  
DID NOT REQUIRE NRC APPROVAL**

**Summary of Safety Analysis**

The modification to reroute containment high radiation monitor cable in seismically supported sealed conduit involves no unreviewed safety question. It provides a qualified cable installation for the existing instrumentation system.

**DC-83-46****Motor Control Center Fuse Installation****Unit 2**

This Design Change installed fuses in all safety-related control circuits powered by Class 1E motor control center control transformers to ensure that fire damage to control cables will not cause damage safety related equipment.

**Summary of Safety Analysis**

The installation of a fuse in the Safety-Related Control Circuit serves to protect the operation of equipment in the event of a fire.

**DC-84-10****Class 1E RCS RTD Replacement****Unit 2**

This design change removed 24 existing RTD's from service and replaced them with RTD's which have adequately demonstrated environmental qualification per the guidelines set forth by IEEE-323-1974 and 10CFR50.49.

**Summary of Safety Analysis**

The modification does not affect the performance of the reactor coolant system. The RTD's were replaced with environmentally qualified RTD's covering the same range and having the same characteristics.

**DC-84-18****Moisture Separator Reheater Modification****Unit 2**

The design change retrofitted the MSR internals with new "state of the art" separators and tube bundles which should result in improved thermal performance of the power plant.

**Summary of Safety Analysis**

The modifications of the MSR's accomplished during plant shutdown are enhancements to non-safety related, and non-seismic power conversion equipment.



**FACILITY CHANGES THAT  
DID NOT REQUIRE NRC APPROVAL**

**DC-84-21**      **Installation of Hotleg Temperature Indication at Remote Monitoring Panel**      **Unit 2**

This design change provides hot leg indication from two of the three main reactor coolant loops at the Remote Monitoring Panel located in the Unit 1 Cable Tray Room. It will reduce the limiting conditions and surveillance requirements for the Remote Monitoring Panel.

**Summary of Safety Analysis**

The modification enhances the availability of reactor parameter indication in the event of a fire. It adds a redundant method to monitor hot leg coolant system temperature to meet the requirements of Appendix R.

**DC-84-23**      **Appendix R Modifications Containment Instrumentation**      **Unit 2**

This design change relocated cable and/or installed noncombustible radiant energy shields to protect one train of equipment and cable for the pressurizer level indication, Reactor Coolant System pressure indication and steam generator level indication.

**Summary of Safety Analysis**

The modification enhances the availability of reactor parameter indication in the event of a fire.

**DC-84-48**      **MSR Vent and Drain System Modifications**      **Unit 2**

The system that was modified is part of the Moisture Separator and HP Heater Drains and Vents System and Main Steam System in the turbine building. This design change improved a steam vent and drain system which will maintain a steam or a steam/liquid mixture at the exit of all U-tubes of the MSR's under all operating conditions.

**Summary of Safety Analysis**

Efficient condensate removal together with improvement in excess steam vent system is expected to provide better tube bundle performance. The system design conditions remain unchanged and the modifications fully comply with the original construction code.

**FACILITY CHANGES THAT  
DID NOT REQUIRE NRC APPROVAL**

**DC-84-57**      **Appendix R Spurious Operations of High/Low Pressure Boundry Valves**      **Unit 2**

This design change added an isolation switch and conduits to certain valves in the high/low pressure boundary of the Reactor Coolant System. The new isolation switches provide a means to assure that the high/low pressure boundary valves are de-energized i.e., closed to mitigate the lost reactor coolant inventory for a fire in the main control room.

**Summary of Safety Analysis**

The modification requires a change to but does not modify the normal operations of safety related equipment, nor reduce the margin of safety of systems as defined in the Technical Specifications.

**DC-84-59**      **Boric Acid Transfer Piping Replacement**      **Unit 2**

This design package replaced affected portions of the 2" and under boric acid piping and associated heat tracing system. Stress corrosion cracking was discovered in the boric acid transfer system piping and was replaced as a short term fix to prevent unscheduled maintenance and outages. Piping was replaced on a one-for-one basis with the same material pipe class as the original class.

**Summary of Safety Analysis**

Operation of the Chemical And Volume Control System remaining unchanged and no additional valves or instrumentation were added.

**DC-84-62**      **HP Heater Drain Pump Discharge Piping and Valve Replacement - Unit 2**

An assessment of the current operating pressures and temperatures of the High Pressure Heater Drain Pump Discharge piping determined that the system was operating above the allowable pressure for discharge piping. This design change upgraded the HP Heater Drains Pump Discharge piping. It includes all piping, fittings, and valves from the pump discharge flange, up to and including the first isolation valves and relief valves were installed.

**Summary of Safety Analysis**

The modification does not affect normal station operation or the operation of any safety related equipment. All valves and fittings were installed on a one-for-one replacement basis except for the installation of the required relief valves.



**FACILITY CHANGES THAT  
DID NOT REQUIRE NRC APPROVAL**

**DC-84-65****Main Steam Valve Modification****Unit 2**

This design change provides an alternate means of operation of the Main Steam Isolation Valves (MSIV) in the event of a fire in the Control Room or in the Emergency Switchgear Room, as required by 10CFR50, Appendix "R". Two new SOV's were added to each MSIV. Two separately dedicated circuits provide the ability to close the MSIV's from the Control Room or the Emergency Switchgear Room. The Power Operated Atmospheric Relief Valves were modified to provide two means of preventing spurious opening caused by a fire in the Control Room or Emergency Switchgear Room.

**Summary of Safety Analysis**

The modification added a means to close the MSIV's and Steam Generator Power Atmospheric Relief Valves in the event of damage to the control circuits due to a fire in the Control Room or Emergency Switchgear Room.

**DC-84-78****10CFR50 - Appendix "R" RCS Letdown Valves Instrument Air Piping  
Mods****Unit 2**

This design change modified the air supply lines of air-operated valves in the reactor coolant, residual heat removal and component cooling water systems. This provides a method to manually operate certain valves locally to perform during hot shutdown after a postulated fire in any area of the plant. During Appendix "R" situations, a portable air supply can be temporarily applied to the applicable valves actuator.

**Summary of Safety Analysis**

The modification involves air supplies of fail close air-operated valves to provide a means to manually operate the valve locally with a portable air bottle in a short period of time following a fire in any area of the plant.

**DC-84-84****Reactor Vessel Head Shielding****Unit 2**

This design change installed a permanent reactor vessel head shield to reduce exposure during outage activities in the area. The head shielding is seismically supported to protect safety related equipment in the area during a postulated seismic event.

**Summary of Safety Analysis**

The head shielding installed by this design change is a passive radiation attenuation measure. It is installed to protect station personnel during construction and maintenance activities in the reactor cavity.

FACILITY CHANGES THAT  
DID NOT REQUIRE NRC APPROVAL

DC-84-86Appendix "R" Coordination Study Fuse Replacement

Unit 2

This design change eliminates the possibility of losing electrical power to safety related equipment due to electrical faults. The change provides for coordination between various loads and their breakers/fuses of their load buses. This will assure that the load protection device will clear the fault condition before the bus feeder breaker. This is important since if the bus feeder breaker trips, then all equipment on the bus is lost, not just the faulted piece of equipment.

Summary of Safety Analysis

The modification reduces the possibility of loss of more safety equipment than necessary thus enhancing the safety of the plant.

DC-85-01Equipment Qualification: Vital Bus Fuse Installation

Unit 2

This design change modified certain non-safety equipment to ensure that no adverse effects occur at the Vital Buses (2-I, 2-II, 2-III, and 2-IV) caused by voltage degradation due to faults on non-safety related loads. It consisted of installing fast acting semi-conductor fuses in series with the existing circuit breakers. Agastat time delay relays were installed to temporarily bypass circuits that exhibit large energization currents capable of activating the fast acting semi-conductor fuses.

Summary of Safety Analysis

The modification does not affect safety related equipment. It will help ensure the proper operation of the Vital Buses while isolating Non-Class 1E circuits to protect against bus degradation.

TESTS AND EXPERIMENTS REQUIRING  
NRC APPROVAL

NONE DURING THIS PERIOD

TESTS AND EXPERIMENTS THAT  
DID NOT REQUIRE NRC APPROVAL

NONE DURING THIS PERIOD

OTHER CHANGES, TESTS AND EXPERIMENTSMONTH/YEAR JUNE - 1985

| <u>PROC. NO.</u> | <u>TITLE</u>  | <u>UNIT</u> |
|------------------|---|-------------|
| 2-ST-178         | A & B MFP Recirc. Valve/Pump Trip Logic Circuit Check | 2           |

VIRGINIA POWER  
SURRY POWER STATION  
CHEMISTRY REPORT

June 19 85

| PRIMARY COOLANT ANALYSIS           | UNIT NO. 1          |                     |                     | UNIT NO. 2          |                     |                     |
|------------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
|                                    | MAXIMUM             | MINIMUM             | AVERAGE             | MAXIMUM             | MINIMUM             | AVERAGE             |
| Gross Radioact., uCi/ml            | 1.26E <sup>0</sup>  | 8.06E <sup>-1</sup> | 1.04E <sup>0</sup>  | 1.94E <sup>-1</sup> | 9.49E <sup>-4</sup> | 7.15E <sup>-2</sup> |
| Suspended Solids, ppm              | 0.00                | 0.00                | 0.00                | 0.00                | 0.00                | 0.00                |
| Gross Tritium, uCi/ml              | 2.35E <sup>-1</sup> | 7.02E <sup>-2</sup> | 1.63E <sup>-1</sup> | 1.32E <sup>-2</sup> | 1.32E <sup>-2</sup> | 1.32E <sup>-2</sup> |
| Iodine <sup>131</sup> , uCi/ml     | 3.77E <sup>-2</sup> | 2.84E <sup>-2</sup> | 3.35E <sup>-2</sup> | 9.84E <sup>-5</sup> | 1.53E <sup>-5</sup> | 4.15E <sup>-5</sup> |
| I <sup>131</sup> /I <sup>131</sup> | 0.75 (3)            | 0.25                | 0.49                | (2)                 | (2)                 | (2)                 |
| Hydrogen, cc/kg                    | 42.1                | 27.6                | 33.7                | 25.5                | 12.5                | 19.8 (1)            |
| Lithium, ppm                       | 1.29                | 0.97                | 1.12                | 2.15(1)             | 1.00 (1)            | 1.53 (1)            |
| Boron-10, ppm*                     | 122.                | 108.                | 116.                | 477 (1)             | 230                 | 368                 |
| Oxygen, (D.O.), ppm                | <.005               | <.005               | <.005               | 3.000 (1)           | <.005               | 1.104               |
| Chloride, ppm                      | <.01                | <.01                | <.01                | <.01                | <.01                | <.01                |
| pH @ 25°C                          | 6.52                | 6.33                | 6.39                | 6.40                | 4.46                | 5.07                |

\* Boron-10 = Total Boron x 0.196

REMARKS: (1.) Unit 2 returning from refueling outage - the numbers reflect shutdown conditions.

(2.) Iodine ratio not applicable - Unit not at stable power for 48 hours.

(3.) Values above 0.6 reflect ND6600 software problems.

DESCRIPTION OF ALL INSTANCES WHERE  
THERMAL DISCHARGE LIMITS WERE EXCEEDED

Page 22

NONE THIS REPORTING PERIOD



## Page 24

UNIT # 2[illegible]



**PROCEDURE REVISIONS THAT CHANGED THE  
OPERATING MODE DESCRIBED IN THE PSAR**

| <u>PROCEDURE NO.</u> | <u>UNIT</u> | <u>TITLE</u>  |
|----------------------|-------------|---|
| OP-8.6.5             | 2           | Venting the Volume Control Tank to the Ventilation<br>Vent System |

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

NONE THIS REPORTING PERIOD

MAINTENANCE OF SAFETY RELATED SYSTEMS DURING  
OUTAGE OR REDUCED POWER PERIODS

UNIT NO. 1

MECHANICAL MAINTENANCE

NONE THIS REPORTING PERIOD

MAINTENANCE OF SAFETY RELATED SYSTEMS DURING  
OUTAGE OR REDUCED POWER PERIODS

UNIT NO. 2

MECHANICAL MAINTENANCE

| DEPT | RETURNED TO SERVICE | MARK NUMBER       | WO NUMBER | WO TITLE  | HISTORY SUMMARY   |
|------|---------------------|-------------------|-----------|---|---|
| R03  | 06/18/85            | 02-EE -EDG -2     | 020085    | PM - ON DEMAND                                      | CHANGED GOVERNOR OIL, CHANGED CRANK-CASE OIL COMP PMS EE-EDG-M/R4<br>6/1/85 REPLACED STRAINER ELEMENT AND O RIN ON FUEL OIL PUMP  |
| 0228 | 06/01/85            | 02-RH - -9        | 020005    | VENT LINE SPRAYING AT PUMP                          | TIGHTENED PIPE NIPPLE<br>ACCEPTED AS PER BILL COX(OPS)  |
| 0228 | 06/02/85            | 02-VS -MOV -200D  | 020178    | GASKET LEAKING                                      | REPLACE GASKET  |
| 0228 | 06/03/85            | 02-CH -FCV -2113A | 014244    | VALVE LEAKS THRU                                    | REMOVED BONNET FROM ULV 5/28. PLUG & SEAT BAD. REINSTALLED OLD PLUG & GAGE, SEAT WITH NEW FLEX GASKET. SUBMITTED W/R TO REPAIR VALVE WHEN PARTS BECOME AVAILABLE.                   |
| 0228 | 06/03/85            | 02-CH -MOV -2350  | 019283    | REPACK VALVE  | REPACK VALVE  |
| 0228 | 06/03/85            | 02-CV - -4        | 017938    | OPEN VALVE TO VERIFY INTERNALS                      | INSPECTED INTERNALS   |
| 0228 | 06/03/85            | 02-CV - -5        | 017937    | OPEN VALVE TO VERIFY INTERNALS                      | INSPECTED INTERNALS   |
| 0228 | 06/03/85            | 02-GM - -2        | 020048    | PACKING LEAK  | ADJUSTED PACKING, NO ADJUSTMENT LEFT.   |
| 0228 | 06/03/85            | 02-MS - -181      | 017709    | REPACK (NEW PACKING PROGRAM)                        | PULLED VALVE BONNET AND DISASSEMBLE D. FOUND STEM TO BE BADLY BENT AND VALVE HARD TO OPERATE. NUMEROUS PITS AND SCRATCHES. HAD BEEN DRILLED FOR FURMANITE. SUB WR 208432 REPLACE BB |
| 0228 | 06/03/85            | 02-RC - -133      | 019878    | VALVE NEEDS REPACKING,                              | REPACKED VALVE WITH GARLOCK 98<br>PACKING 1/4"  |
| 0228 | 06/03/85            | 02-RS - -82       | 019524    | THREADS FOR PIPE CAP ON 2-RS-<br>82 are stripped.   | CHASED THREADS, RE-INSTALLED PIPE<br>CAP  |
| 0228 | 06/04/85            | 02-BD - -11       | 020201    | VALVE HAS PACKING & STEM LEAK<br>As per PT 18.38.   | PACKING IS OUT OF VALVE, REPACKED<br>VALVE  |
| 0228 | 06/04/85            | 02-BD - -21       | 020091    | PACKING LEAK AS DETERMINED BY<br>PT 18.38           | REPLACED PACKING  |
| 0228 | 06/04/85            | 02-BD - -24       | 020089    | VALVE HAS PACKING LEAK AS<br>Determined by PT 18.38 | REPLACED PACKING  |
| 0228 | 06/04/85            | 02-BE -MISC-NA    | 014217    | REMOVE/INSTALL EQUIPMENT                            | REMOVED EQUIPMENT HATCH AND INSTALL<br>TEMPORARY COVER 3/25/85. REMOVE<br>INNER DOOR 3/26/85. REINSTALL<br>6/4/85 EQUIPMENT HATCH AND ESCAPE<br>TRUNK                               |
| 0228 | 06/04/85            | 02-CH - -305      | 019922    | VALVE HAS EXCESSIVE LEAKAGE                         | REPLACE VALVE   |
| 0228 | 06/04/85            | 02-CH -HCV -2142  | 020148    | WITH 80 LBS AIR ON DOME VALVE                       | CHECKED STROKE AND CANNOT BE SET<br>FOR MORE THAN 1/2" SUPPOSE TO BE<br>1"  |
| 0228 | 06/04/85            | 02-CH -HCV -2310  | 020250    | ADJUST SPRING PRESSURE                              | ADJUSTED SPRING PRESSURE UP 1/4<br>TURN   |

| DEPT | RETURNED TO SERVICE | MARK NUMBER        | WO NUMBER | WO TITLE  | HISTORY SUMMARY  |
|------|---------------------|--------------------|-----------|---|--|
| 0228 | 06/04/85            | 02-CH -PP -N/A     | 020278    | INSTALL BLANK FLANGE AT SEAL  | INSTALLED BLANK ON SEAL INJECTION LINE WITH 2 NEW FLEXATELIC GASKETS   |
| 0228 | 06/04/85            | 02-CS -PP -134     | 013945    | REVERSE SPECTICLE FLANGE ON Line 8" - CS - 134.                               | INSTALLED FLANGE 4-15-85<br>REVERSED 5-28-85   |
| 0228 | 06/04/85            | 02-EPD-M -MG1&2    | 018200    | ASSIST ELECTRICIANS IN Removing and installing Fly-wheel.                     | HEAT FLYWHEEL SO ELECT COULD REMOVE AND REINSTALL  |
| 0228 | 06/04/85            | 02-FW - -3         | 020211    | PACKING LEAKS, NEEDS REPACKING  | PACKED VALVE   |
| 0228 | 06/04/85            | 02-FW - -502       | 020276    | PACKING BAD REPACK AS PER TYPE A testing.                                     | REPACKED VALVE   |
| 0228 | 06/04/85            | 02-FW - -63        | 020275    | REPACK AS PER TYPE A TESTING  | REMOVED OLD PACKING 5 RINGS AND REPLACED WITH GARLOCK 98 1/4" 6 RINGS AND PLACE VALVE ON BACK SEAT   |
| 0228 | 06/04/85            | 02-FW - -93        | 020212    | PACKING LEAKS NEEDS REPACKING   | PACKED VALVE   |
| 0228 | 06/04/85            | 02-MS -TV -201A    | 020208    | REPLACE EAST PACKING FOLLOWER   | REMOVED OLD PACKING OFF EAST SIDE<br>INSTALLED SIX NEW PIECES OF PACKING<br>GARLOCK 98 3/8". HOLES IN BONNET WERE PLUGGED  |
| 0228 | 06/04/85            | 02-RC - -42        | 001952    | PACKING STEM LEAK   | REPACK VALVE WITH GARLOCK 98   |
| 0228 | 06/04/85            | 02-RC -MISC-RVALIS | 019715    | TIG WELD FILL VALVES SHUT   | REPLACED FILL VALVE AND SEAL<br>WELDED CAPS  |
| 0228 | 06/04/85            | 02-RH -E -1A       | 018797    | HAS LEAK ON LOW-HEAD FLANGE   | TIGHTENED  |
| 0228 | 06/04/85            | 02-RM - -8         | 020190    | HANDWHEEL FREE SPINS CANNOT Verify position.                                  | REPLACE VALVE  |
| 0228 | 06/04/85            | 02-RS -E -1C       | 008385    | CLEAN HEAT EXCHANGER IAW MMP-C RS-043, MMP-C-SW-117.                          | REMOVED UPPER SHELL HEAD & UPPER DIAPHRAGM. BLANKED INLET/OUTLET RECIRC CONN. PZR'D SHELL & CK'D FOR LEAKS, NONE. CLEANED TUBES. REMOVED BOTTOM S.W. ELBOW CLEANED BOTTOM HX |
| 0228 | 06/04/85            | 02-RS -E -1D       | 008384    | CLEAN HEAT EXCHANGER IAW MMP-C- RS-043 MMP-C-SW-117                           | REMOVED UPPER SHELL HEAD & UPPER DIAPHRAGM. BLANKED INLET/OUTLET RE- CIRC CONNECTION. PZR'D SHELL & CK'D FOR LEAKS, NONE. CLEANED TUBES & BOTTOM OF HX & ELBOW. REINSTALLED. |
| 0228 | 06/04/85            | 02-RS -FNG - NA    | 017281    | INSTALL TEST FLANGE FOR HYDRO   | INSTALLED FLANGE 5/21/85<br>REMOVED 5/25/85  |
| 0228 | 06/04/85            | 02-RS -FNG -NA     | 017285    | INSTALL TEST FLANGE FOR HYDRO   | INSTALLED FLANGE 5/21/85<br>REMOVED 5/25/85  |
| 0228 | 06/04/85            | 02-RS -FNG -NA     | 017371    | INSTALL 8" TEST FLANGE ON Spray Ring For Hydro                                | REVERSED FLANGE 5/27/85.   |
| 0228 | 06/04/85            | 02-RS -FNG -NA     | 017374    | INSTALL 8" TEST FLANGE ON RS Spray Ring                                       | INSTALLED FLANGE<br>REVERSED 5/26/85   |
| 0228 | 06/05/85            | 02-BD - -123       | 020094    | BONNET TO BODY LEAK AND A Packing leak as per PT 16.3B.                       | ADJUSTED PACKING. REPLACED VALVE ON WO# 3800020078.  |
| 0228 | 06/05/85            | 02-BD -PP -NA      | 011082    | HOLE IN BD PIPING TO MAIN Condenser Waterbox "C"                              | REPAIRED PIPE AS REQUIRED USE 40' 3" PIPE 2.90 DEG. 1 45 DEG TEE.  |
| 0228 | 06/05/85            | 02-CS -P -1B       | 018809    | OUTBOARD PUMP SEAL LEAKING AT Hydro Pressure                                  | REPLACED MECHANICAL SEAL (OUTBOARD) ALSO REPLACED OUTBOARD BEARING.  |
| 0228 | 06/05/85            | 02-FH -MISC-NA     | 018085    | REMOVE DILLON LOAD CELL FROM Containment for Type A Test Following Refueling. | LOAD CELL, GUAGES AND LINKS ARE OUT OF CONTAINMENT AND STORED IN REFUELING TOOL ROOM.  |

| DEPT | RETURNED TO SERVICE | MARK NUMBER | WO NUMBER | WO TITLE  | HISTORY SUMMARY  |
|------|---------------------|-------------|-----------|---|--|
| 0228 | 06/05/85            | 02-MS -     | -132      | 020063 PACKING LEAK   | ADJUSTED PACKING GLAND TWO TURNS.<br>REPACKED VALVE 6/1/85   |
| 0228 | 06/05/85            | 02-RS -PN   | -66       | 013949 INSTALL BLANK FLANGE                                 | INSTALLED BLANKS 4-13-85<br>REMOVED BLANKS AND INSTALLED<br>SCREENS 6-7-85   |
| 0228 | 06/05/85            | 02-SW -P    | -10A      | 020442 REMOVE 2-SW-P-10A AND PUT IN<br>Place of 1-SW-P-10B. | REMOVED 2-SW-P-10A AND PUT IN PLACE<br>OF 1-SW-P-10B   |
| 0228 | 06/06/85            | 02-CH -     | -304      | 019921 LEAKS THRU EXCESSIVELY,                              | DISASSEMBLED VALVE LAPPED SEAT AND<br>DISC AS NECESSARY.HAVE 100% BLUEING  |
| 0228 | 06/06/85            | 02-CH -FCV  | -2160     | 020478 VALVE FAILED OPEN                                    | ADJUSTED PACKING AND STROKE 6/6/85   |
| 0226 | 06/06/85            | 02-CS -FNG  | -NA       | 017413 REMOVE BONNET FROM 2-CS-24<br>& Install Test Flange. | COMPLETED ON WO 3800019749 ON<br>5/25/85   |
| 0228 | 06/06/85            | 02-MS -     | -158      | 019830 EXCESSIVE SEAT LEAKAGE, FAILS<br>Hydro               | DISASSEMBLED VALVE BONNET,BLUED<br>GATE TO SEAT UNSATISFACTORY.GATE<br>TO LOW IN VALVE BODY.REPLACED WITH<br>NEW VALVE CUT OUT OLD ONE WELDED IN<br>NEW BONNET NOT MARKED PROPERLY |
| 0228 | 06/06/85            | 02-RC -P    | -1B       | 020084 MANUFACTURE DRAIN LINE ON OIL                        | MANUFACTURED OIL DRAIN LINES FOR OI<br>L COLLECTION SYSTEM AS PER ATTACHED<br>DRAWINGS FROM SCOTT HANSON   |
| 0228 | 06/06/85            | 02-RS -     | -11       | 013951 REVERSE SPECITICLE FLANGBE                           | INSTALLED 4/16/85 REMOVE BLANK<br>FLANGE 6/5/85  |
| 0228 | 06/06/85            | 02-RS -     | -17       | 013952 REVERSE SPECTICLE FLANGE                             | INSTALLED BLANK 4/14/85<br>REMOVE BLANK 6/5/85   |
| 0228 | 06/06/85            | 02-SI -     | -338      | 020384 VALVE WONT OPEN                                      | FREED VALVE FOR OPERATIONS   |
| 0228 | 06/07/85            | 02-CH -     | -210      | 015794 REPLACE DIAPHRAGM AS PER 5 YR                        | REMOVED OLD BONNET ASSY INSPECTED H<br>OUSING INSTALLED COMPLETE NEW BONNE<br>T ASSY & ADJUSTED TRAVEL STOP NUTS   |

| DEPT | RETURNED TO SERVICE | MARK NUMBER    | WO NUMBER | WO TITLE  | HISTORY SUMMARY  |
|------|---------------------|----------------|-----------|---|--|
| 0228 | 06/07/85            | 02-CH -        | -378      | 015840 REPLACE DIAPHRAGM AS PER 5 YR                          | REMOVED OLD BONNET ASSY. INSPECTED HOUSING INSTALLED COMPLETE NEW BONNET AND ADJUSTED TRAVEL STOP NUTS           |
| 0228 | 06/07/85            | 02-CH -HCV     | -2310     | 020375 REINSTALL AND/OR REPAIR VALVE                          | INSTALLED ACTUATOR REQUIRES LIMIT SWITCHES WORK BY ELECTRICIANS BOTTOM SWITCH BROKEN.ELEC HAVE ATTACHED SWITCHES |
| 0228 | 06/07/85            | 02-CH -HCV     | -2311     | 020378 INSTALL/REPAIR VALVE ACTUATOR                          | INSTALLED ACTUATOR NEEDS LIMIT SWITCHES.ELEC HAS INSTALLED LIMIT SWITCHES  |
| 0228 | 06/07/85            | 02-IA -        | -856      | 020293 LARGE AIR LEAK AT SWIDGELOCK                           | TIGHTENED FITTINGS ON INST. AIR ISOLATION VALVE  |
| 0228 | 06/07/85            | 02-MS -TV      | -2        | 011609 OVERHAUL VALVE   | OVERHAUL VALVE, OPERATION SAT AS PER ATTACHMENT  |
| 0228 | 06/07/85            | 02-RC -        | -68       | 020264 HANDWHEEL MISSING                                      | REPLACED HANDWHEEL ON VALVE  |
| 0228 | 06/07/85            | 02-RC -        | -82       | 020263 RATCHET OPERATOR FOR VALVE                             | INSTALLED RATCHET HANDLE ON VALVE RATCHET HANDLE P# SY012152   |
| 0228 | 06/07/85            | 02-RC -HCV     | -2556C    | 020291 VALVE WILL NOT SHUT.                                   | REPLACED SOV AND COIL BAD ISOLATION VALVE THE CLOSES ONE TO SOV, VALVE CYCLED SAT                                |
| 0228 | 06/07/85            | 02-RS -PH      | -69       | 013950 INSTALL BLANK FLANGE                                   | INSTALLED BLANK 4-13-85<br>REMOVED BLANKS AND INSTALLED SCREENS 6-7-85   |
| 0228 | 06/07/85            | 02-SI -        | -339      | 017464 REMOVE TACK WELD SO VLV CAN BE Closed                  | MEASUREMENT FOR VALVE GAUGE BLOCK 2 .125 REMOVE AND REWELD TACKS   |
| 0228 | 06/07/85            | 02-SI -        | -341      | 017474 REMOVE TACK WELD SO VLV CAN BE Closed                  | REMOVE AND RETACK WELD.  |
| 0228 | 06/08/85            | 02-SW -P       | -10A      | 020459 OVHL PUMP  | INSTALLED REBUILT PUMP. PUMP PASSED PT.  |
| 0228 | 06/10/85            | 02-B5 -DR      | -HATCH    | 020495 MECHANIC SUPPORT ON PERSONAL Hatch                     | INSTALLED NEW ORINGS REPAIRED CLOSURE ARM REPLACED BOLTS ON EQUALIZING VALVES                                    |
| 0228 | 06/10/85            | 02-CH -RV      | -2382A    | 009556 TEST VALVE PT 12.2                                     | REPLACED VALVE. TESTED VALVE, UNSAT REPLACED BELLOW, LAPPED SEATS, REASSEMBLED, TESTED SAT.                      |
| 0228 | 06/10/85            | 02-CH -RV      | -2382B    | 017399 REMOVE VALVE, BENCH TEST, RE-Install Valve             | TESTED VALVE, ADJUSTED PRESSURE SETPOINT TO 150 - TESTED SAT.  |
| 0228 | 06/10/85            | 02-FH -MISC-NA |           | 019917 FABRICATE (4) TEST/CAL FLANGES                         | MANUFACTURED 4 TEST/CAL FLANGES FOR OPS  |
| 0228 | 06/10/85            | 02-MS -RI      | -225      | 020035 MONITOR IS SPIKING                                     | TALKED WITH CONTROL ROOM OPERATOR HAS OBSERVED NO SPIKING ON MS-225 CHECKED OPERATORS LOG BOOK                   |
| 0228 | 06/10/85            | 02-RC -PP      | -1        | 019591 B LOOP HOTLEG 2 INCH DRAIN Line has 22 inch indication | FILED INDICATION ON B-HOTLEG 2" DRAIN LINE. APPROX 1/64" IN DEPTH. FINAL NDE PT SAT. (WELD #1 BC)                |
| 0228 | 06/10/85            | 02-RS -P       | -2B       | 018058 LOOSEN SEISMIC RESTRAINTS ON Pump for Type A test.     | LOOSEN EIGHT HOLD DOWN BOLTS ON SUPPORT FROM CONTAINMENT WALL TO PUMP 5/31/85 TIGHTEN SEISMIC RESTRAINT 6-10-85  |



| DEPT | RETURNED TO SERVICE | MARK NUMBER       | WO NUMBER | WO TITLE  | HISTORY SUMMARY   |
|------|---------------------|-------------------|-----------|---|---|
| 0228 | 06/10/85            | 02-SI -P -1B      | 018060    | LOOSEN SEISMIC RESTRAINTS ON Pump for Type A Test             | LOOSEMED SEISMIC RESTRAINTS 6/6/85<br>TIGHTEN SEISMIC RESTRAINTS 6/10/85  |
| 0228 | 06/10/85            | 02-SI -PP -201    | 013947    | INSTALL BLANK FLANGE TO SUCTION Strainers in containment Sump | INSTALLED BLANK FLANGE, REMOVED BLANK.  |
| 0228 | 06/10/85            | 02-SI -PP -202    | 013948    | INSTALL BLANK FLANGE TO SUCTION Strainers in Containment Sump | INSTALLED BLANK FLANGE, REMOVED FLANGE.   |
| 0228 | 06/11/85            | 02-RH -MOV -200   | 020373    | VALVE WILL NOT OPEN FROM CONT-ROL ROOM                        | OPERATED VALVE ELECTRICALLY. MOTOR AMPS 1 AMP OPEN 5 AMPS CLOSED DIRECTION. MOVATS TESTED AND ADJUSTED TORQUE SWITCH VALVE CYCLED SAT 6/11/85 |
| 0228 | 06/11/85            | 02-RS -P -2A      | 018059    | LOOSEN SEISMIC RESTRAINTS ON Pump for Type A test.            | LOOSEN EIGHT HOLD DOWN BOLTS ON SUPPORT FROM CONTAINMENT WALL TO PUMP HOUSING 5/31/85. TIGHTENED RESTRAINTS 6-10-85                           |
| 0228 | 06/11/85            | 02-SI - -48       | 018945    | REPACK VALVE  | REMOVED 3 RINGS OF PACKING. PUT 4 RINGS IN. GOT WATER AT LANTERN RING 3/8 PACKING   |
| 0228 | 06/11/85            | 02-SI - -57       | 018944    | REPACK VALVE  | REMOVED 3 RINGS OF PACKING, COULD NOT REMOVE LANTERN RING. PUT 4 RINGS OF PACKING BACK. 3/8 PACKING.  |
| 0228 | 06/11/85            | 02-SI -P -1A      | 018061    | LOOSEN SEISMIC RESTRAINTS ON Pump for Type A Test             | LOOSEMED SEISMIC RESTRAINTS 6/6/85<br>TIGHTENED SEISMIC RESTRAINTS 6/10-85  |
| 0228 | 06/12/85            | 02-CH -FNG -NA    | 017268    | INSTALL BLANK FLANGE FOR HYDRO                                | INSTALLED BLANK FLANGES 5/22/85.<br>REMOVED BLANK FLANGE & INSTALLED RELIEF VALVE   |
| 0228 | 06/12/85            | 02-CH -MOV -2842  | 020668    | PACKING LEAK 1-2 GPM, ADJUST or repack                        | SWF TO ADJUST PACKING ONLY  |
| 0228 | 06/12/85            | 02-DA -TV -200B   | 017980    | EXCESSIVE LEAKAGE AS PER PT 18.4 testing                      | INSTALLED 2-DA-TV-100A IN PLACE OF 2-DA-TV-200B TO SPEED UNIT 1 OUTAGE UP.  |
| 0228 | 06/12/85            | 02-RC -TE -469    | 020537    | 1/2" PIPE NIPPLE IS BROKEN OFF Inside RTD well                | REMOVED BROKEN NIPPLE FROM RTD WELL INST. TECHS FINISHED JOB.   |
| 0228 | 06/12/85            | 02-RT - -1        | 008832    | VALVE CANNOT BE CLOSED WITH hand wheel                        | INSTALLED NEW HANDWHEEL   |
| 0228 | 06/12/85            | 02-RT - -2        | 020486    | NO HANDWHEEL KNOCKER  | INSTALLED NEW HANDWHEEL AND KNOCKER.  |
| 0228 | 06/12/85            | 02-RT - -39       | 020485    | NO HANDWHEEL/KNOCKER  | INSTALLED NEW HANDWHEEL AND KNOCKER   |
| 0228 | 06/13/85            | 02-CH -FNG -NA    | 020451    | FLANGE BETWEEN 'A' RCP AND 2-CH-328, 2-CH-403-1502 Leaking    | TIGHTENED FLANGE  |
| 0228 | 06/13/85            | 02-CH -HCV -2310A | 020242    | ADJUST STROKE PER TYPE A, B, C                                | ADJUSTED STROKE   |
| 0228 | 06/13/85            | 02-CH -HCV -2311  | 020243    | ADJUST STROKE PER TYPE A, B, C                                | ADJUSTED STROKE   |

| DEPT | RETURNED TO SERVICE | MARK NUMBER | WO NUMBER | WO TITLE  | HISTORY SUMMARY  |
|------|---------------------|-------------|-----------|---|--|
| 0228 | 06/13/85            | 02-MS -     | -87       | 019831 EXCESSIVE SEAT LEAKAGE,                                    | LAPPED SEAT IN VALVE AND DISC<br>REPACKED VALVE WITH GARLOCK 98<br>PACKING 5/16" STOCK 3625317   |
| 0228 | 06/13/85            | 02-RC -E    | -1A       | 014039 REMOVE/INSTALL SECONDARY                                   | 3/30/85 REMOVED BOTH MANWAY COVERS<br>INSTALLED AND TORQUED MANWAYS AND<br>HANDHOLE COVERS(5) ONE HANDHOLE<br>COVER WASN'T REMOVED   |
| 0228 | 06/13/85            | 02-RC -E    | -1A       | 017155 REMOVE/INSTALL PRIMARY MANWAY                              | HOT AND COLD PRIMARY MANWAYS COMPLE<br>TELY REMOVED. GASKET SEATING AREA<br>UP ON SG PLATFORM COVERED IN<br>HERCULITE  |
| 0228 | 06/13/85            | 02-RC -HCV  | -2549     | 020696 BLOWN DIAPHRAGM  | REMOVED OLD DIAPHRAGM INSTALLED<br>NEW DIAPHRAGM   |
| 0228 | 06/13/85            | 02-RC -LG   | -NA       | 020481 SIGHTGLASS BROKEN ON 'B' RCP                               | REPLACED SIGHTGLASS  |
| 0228 | 06/13/85            | 02-RC -LG   | -NA       | 020483 SIGHTGLASS BROKEN ON 'C' RCP                               | REPLACED SIGHTGLASS  |
| 0228 | 06/13/85            | 02-RC -LG   | -NA       | 020484 SIGHTGLASS BROKEN ON 'A' RCP                               | REPLACED SIGHTGLASS  |
| 0228 | 06/13/85            | 02-RC -PCV  | -2455A    | 020704 REPLACE DIAPHRAGM  | REPLACED DIAPHRAGM   |
| 0228 | 06/13/85            | 02-RC -PCV  | -2455B    | 020673 AIR LEAK ON DIAPHRAGM                                      | REPLACED DIAPHRAGM   |
| 0228 | 06/13/85            | 02-RC -PCV  | -2456     | 018063 BLOCK OPEN PCV-2456 FOLLOWING                              | TAKE MEASUREMENTS ONLY<br>BLOCKED VALVE OPEN 6-7-85<br>REMOVED BLOCKS 6-11-85  |
| 0228 | 06/13/85            | 02-RH -P    | -1A       | 017497 PUMP INOPERABLE PER PT 30.0                                | REPLACED SEAL LEAK OFF LINE AS<br>NECESSARY.   |
| 0228 | 06/13/85            | 02-SI -     | -247      | 020715 REMOVE PACKING AND REINSTALL                               | REMOVED PACKING FROM VALVE 6 RINGS<br>1/4" PACKING CLEANED INSPECTED<br>INSTALLED 5 RINGS GARLOCK #98<br>5/16 PACKING ADJUSTED   |
| 0228 | 06/13/85            | 02-SI -     | -56       | 019529 CHECK VALVE HAS LEAK AROUND TOP<br>Bonnet Cap              | CHECKED CAP, ALL STUDS WERE TIGHT.<br>TRACES OF BORIC ACID WAS ALL WE<br>FOUND, 1 7/16" AND 1 9/16" NUTS ON<br>VALVE, CARBON STEEL & STAINLESS.<br>OFS WANTS TO REHYDRO FIRST.           |
| 0228 | 06/14/85            | 02-EPL-EP   | -3E       | 020528 PRESSURE CHAMBER PIPING TO<br>Pressure gauge is broken off | COMPLETED REPAIR OF PENETRATION.<br>EVERYTHING SAT.  |
| 0228 | 06/14/85            | 02-EPL-EP   | -4D       | 020512 RECONNECT PRESSURE GAUGE PIPING                            | INSTALLED TEMPORAY PLUG INTO 4-D<br>PENETRATION. REPAIRED PENETRATION,<br>EVERYTHING SAT.  |
| 0228 | 06/14/85            | 02-FW -     | -2        | 020210 PACKING LEAKS NEED REPACKING                               | PACKED VALVE   |
| 0228 | 06/14/85            | 02-MS -TCV  | -207B     | 001786 OVERHAUL VALVE   | INSTALLED ROLL PIN AS INSTRUCTED BY<br>FOREMAN ON STEP #5.2. REPLACED STEM<br>& PILOT VALVE. MACHINED CUT MAIN<br>PLUG & PILOT VALVE SEATS & BLUE<br>CHECKED. REASSEMBLED ULV & REPACKED |
| 0228 | 06/14/85            | 02-RC -     | -159      | 002040 REINSTALL 2-RC-159 IAW EWR 84-<br>127 using new components | CUT PIPE OUT OF BOSS AT CHANNEL<br>HEAD TO ALLOW FOR DRAINING OF PIPE<br>ON 4/3/85. FABRICATED AND INSTALLED<br>NEW PIPING AND VALVE.  |
| 0228 | 06/14/85            | 02-RS -PH   | -123      | 020118 RESET SPRING HANGER TO 1050LBS                             | ADJUSTED HANGER TO SHOW 1050 LBS.  |

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|------|---------------------|-------------|-----------|---|--|
| 0228 | 06/14/85            | 02-SI -     | -336      | 017469 REMOVE TACK WELD PRIOR TO PT 18.4        | MEASUREMENT FOR VALVE GUAGE BLOCK 1.910 REMOVE AND REINSTALL TACK WELD   |
| 0228 | 06/14/85            | 02-SI -     | -338      | 017471 REMOVE TACK WLD ON VALVE STEM            | MEASUREMENT FOR VALVE GUAGE BLOCK 2.204 TACKS MADE AFTER OPS SET VALVE   |
| 0228 | 06/14/85            | 02-SI -     | -340      | 017470 REMOVE TACK WELD PRIOR TO PT 18.4        | MEASUREMENT FOR VALVE GUAGE BLOCK 2.101.CUT TACKS RETACK AFTER OPS SETS VALVE  |
| 0228 | 06/14/85            | 02-SI -     | -47       | 020496 DISASSEMBLE VLV. , CHECK FOR Full Stroke | DISASSEMBLED VALVE FOR PT18.12 REASSEMBLED VALVE   |
| 0228 | 06/14/85            | 02-SS -TV   | -201B     | 020675 VALVE WILL NOT SHUT                      | VALVE SEAL IN NOT DROPPING OUT. ADJUSTED ACTUATOR DISC.CYCLED VALVE 4 TIMES VALVE OPERATED SAT AND LIGHTS                      |
| 0228 | 06/15/85            | 02-RC -P    | -1B       | 020607 ASSIST TECH REP. WITH BALANCE            | INSTALLED 4 WEIGHTS 789.2 GRAMS ON BOLT NO 1 6-14-85.INSTALLED 955 GRAMS ON BOLT # 4 6-15-85                                   |
| 0228 | 06/17/85            | 02-BD -     | -24       | 020722 PACKING LEAK                             | ADJUSTED PACKING   |
| 0228 | 06/17/85            | 02-FW -MOV  | -251A     | 020830 INSPECT LIMITORQUE AND ZERK              | INSPECT FOR MISSING ZERK FITTINGS NONE MISSING   |
| 0228 | 06/17/85            | 02-FW -P    | -3A       | 020053 PUMP DID NOT AUTO START                  | WORK PERFORMED BY AUTOMATION AND CONTROL. FOUND TRIP FUSES 25A5/25A6 PULLED CAUSING 2-FW-P-3A NOT TO AUTO START WHEN REQUIRED. |
| 0228 | 06/18/85            | 02-FW -MOV  | -251B     | 020831 INSPECT LIMITORQUE AND ZERK              | INSPECT FOR MISSING ZERK FITTINGS NONE MISSING   |
| 0228 | 06/18/85            | 02-FW -MOV  | -251C     | 020832 INSPECT LIMITORQUE AND ZERK              | INSPECT FOR MISSING ZERK FITTINGS NONE MISSING   |
| 0228 | 06/18/85            | 02-FW -MOV  | -251D     | 020833 INSPECT LIMITORQUE AND ZERK              | INSPECT FOR MISSING ZERK FITTING NONE MISSING  |
| 0228 | 06/18/85            | 02-FW -MOV  | -251E     | 020834 INSPECT LIMITORQUE AND ZERK              | INSPECT FOR MISSING ZERK FITTING NONE MISSING  |
| 0228 | 06/18/85            | 02-FW -MOV  | -251F     | 020835 INSPECT LIMITORQUE AND ZERK              | INSPECT FOR MISSING ZERK FITTING NONE MISSING  |
| 0228 | 06/18/85            | 02-HS -     | -338      | 017820 VALVE LEAKS BY, REPAIR.                  | REPLACED VALVE WITH NEW ONE  |
| 0228 | 06/18/85            | 02-RC -P    | -1A       | 020608 ASSIST TECH REP. WITH BALANCE            | INSTALLED 2 WEIGHTS 329 GRAMS ON BOLT NO 4 6/14/85 INSTALLED 668 GRAMS ON BOLT #6 6/15/85                                      |
| 0228 | 06/20/85            | 02-BD -TV   | -200D     | 020093 PACKING LEAK AS PER PT 16.3B             | ADJUSTED PACKING REPACKED VALVE  |
| 0228 | 06/20/85            | 02-CC -RV   | -209      | 009532 TEST VALVE PT 12.2                       | REMOVED VALVE TESTED AND RETURNED AS NECESSARY TESTED SAT  |

| DEPT | RETURNED TO SERVICE | MARK NUMBER       | WO NUMBER | WO TITLE                                    | HISTORY SUMMARY   |
|------|---------------------|-------------------|-----------|---|---|
| 0228 | 06/20/85            | 02-CC -RV -215C   | 001331    | REPLACE VALVE                               | TESTED VALVE SAT  |
| 0228 | 06/20/85            | 02-CH -FCV -2113A | 020836    | AIR LEAK UNDER DIAPHRAM WHERE               | REPLACED DIAPHRAGM  |
| 0228 | 06/20/85            | 02-CH -FL -4A     | 016454    | FILTER REMOVAL NECESSARY                    | INSTALL NEW FILTERS AND NEW CAGE ASSEMBLY   |
| 0228 | 06/20/85            | 02-CH -HCV -2200B | 001983    | VALVE LEAKS BY BADLY                        | REPLACE INTERNALS AND STEM  |
| 0228 | 06/20/85            | 02-CH -HCV -2200C | 002832    | VALVE LEAKS THRU                            | REPLACE INTERNALS AND STEM  |
| 0228 | 06/20/85            | 02-CH -LCV -2115C | 018345    | EXCEEDED MAX STROKE TIME                    | REPACKED VALVE USING 1/4" GARLOCK 9 8 5 RINGS   |
| 0228 | 06/20/85            | 02-CH -MOV -2115C | 020482    | VALVE WOULD NOT OPEN FROM CON-<br>trol Room | TORQUE SWITCH STUCK OPERATIONS<br>OPENED MANWAY CYCLED VALVE 3 TIMES<br>VALVE CYCLED PROPERLY   |
| 0228 | 06/20/85            | 02-CH -MOV -2269A | 019557    | PM - ON DEMAND                              | PERFORMED PMS<br>READINGS ON WO   |
| 0228 | 06/20/85            | 02-CH -MOV -2269B | 019559    | PM - ON DEMAND                              | COMPLETED PMS AS PER PROCEDURE<br>READINGS ON WO  |
| 0228 | 06/20/85            | 02-CH -MOV -2350  | 019228    | BODY/BONNET LEAK                            | DISASSEMBLED VALVE FOUND VALVE AND<br>DISC CRACKED. PARTS NOT AVAILABLE<br>AT THIS TIME REASSEMBLED AS IS.<br>WIRED AND SET LIMIT SWITCHES. INSTA<br>LLED NEW GASKET AND REPACKED |
| 0228 | 06/20/85            | 02-CH -P -1B      | 020904    | MOVE VENT RIG                               | MOVE VENT RIG FROM C TO B<br>CHARGING PUMP  |
| 0228 | 06/20/85            | 02-CH -TV -2204   | 018634    | EXCESSIVE LEAKAGE PAST SEAT                 | DISASSEMBLE VALVE LAP SEAT AND DISC<br>AS NECESSARY DISASSEMBLED VALVE LA<br>PPED SEAT & DISC REASSEMBLED VALVE   |
| 0228 | 06/20/85            | 02-CV -TV -250A   | 017591    | VALVE LEAKS BY AS PER PT 16.4               | DISASSEMBLED VALVE, LAPPED SEATS A<br>ND PLUGS REASSEMBLED VALVE AND REPA<br>CKED   |
| 0228 | 06/20/85            | 02-CV -TV -250B   | 017590    | VALVE LEAKS BY AS PER PT 16.4               | DISASSEMBLED VALVE LAPPED SEATS AND<br>PLUG REASSEMBLED VALVE AND REPACK  |
| 0228 | 06/20/85            | 02-CV -TV -250C   | 017894    | VLV HAS EXCESSIVE LEAKAGE                   | DISASSEMBLE VALVE LAPPED SEAT AND P<br>LUG REASSEMBLE VALVE   |
| 0228 | 06/20/85            | 02-DA -TV -200B   | 017053    | EMR 85-142, REPLACE ASCO                    | REPLACED SOV-TV-DA-200B<br>PROCEDURE WAS STOPPED AT 5.7 AND<br>WAS TURNED OVER TO DANIELS ON<br>EMR-85-266 FOR LIMIT SWITCH CONAX<br>MODIFICATION. VALVE CYCLED SAT               |
| 0228 | 06/20/85            | 02-DG -TV -208A   | 019807    | REPACK VALVE ,FAILED PT16.4,                | ADJUSTED PACKING  |
| 0228 | 06/20/85            | 02-FW - -39       | 020858    | DISK AND STEM HAVE SEPERATED                | REPLACE VALVE WITH NEW AS PER EMR   |
| 0228 | 06/20/85            | 02-FW -MOV -251C  | 020360    | INSTALL GREASE FITTING                      | INSTALL GREASE FITTING<br>#2295726  |
| 0228 | 06/20/85            | 02-FW -MOV -251D  | 002382    | EXCEEDS STROKE TIME AS PER PT<br>16.6       | DISASSEMBLED VALVE CLEAN AND INSPEC<br>TED INTERNALS REASSEMBLED VALVE WIT<br>H NEW BONNET GASKET, STEM, PLUG AND<br>ROTATE REPACKED VALVE  |
| 0228 | 06/20/85            | 02-FW -MOV -251D  | 020062    | PACKING LEAK                                | ADJUSTED PACKING GLAND  |

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|------|---------------------|------------------|-----------|--|--|
| 0228 | 06/20/85            | 02-FW -MOV -251D | 020358    | INSTALL GREASE RELIEF VALVE                          | INSTALL GREASE FITTING #2295726  |
| 0228 | 06/20/85            | 02-FW -MOV -251E | 002141    | EXCESSIVE STROKE TIME                                | REPACKED VALVE WITH GARLOCK 98   |
| 0228 | 06/20/85            | 02-FW -MOV -251E | 020359    | INSTALL GREASE FITTING REF:                          | INSTALL GREASE FITTING #2295726  |
| 0228 | 06/20/85            | 02-FW -MOV -251F | 002383    | EXCEEDS STROKE TIME AS PER PT 18.8                   | DISASSEMBLED VALVE REPLACED STEM, DISC TORQUE KEY, GASKET DISC WASHER-100 PERCENT BLUE CHECK REASSEMBLED VALVE   |
| 0228 | 06/20/85            | 02-FW -P -2      | 020077    | SOV-MS-202A AND 202B ARE NOT Open                    | BOTH VALVES ARE OPEN WITH OPEN INDICATION IN CONTROL ROOM ON BOTH VALVES NO WORK PERFORMED   |
| 0228 | 06/20/85            | 02-MS - -343     | 017821    | VALVE LEAKS BY, REPAIR.                              | SLD VALVE CUT OUT NEW VALVE WELDED IN  |
| 0228 | 06/20/85            | 02-MS - -347     | 017844    | VALVE LEAKS BY, REPAIR.                              | REPLACE VALVE WITH NEW   |
| 0228 | 06/20/85            | 02-MS -TV -HA    | 017817    | VALVE LEAKS BY GROSSLY,                              | HAD INSULATION REMOVED 5/23/85 REMOVED VALVE, DISASSEMBLED USED LAPING COMPOUND TO PROVIDE SEAL ON SURFACES USED BLUEING TO INSURE 100% SEAL CLEANED AND REASSEMBLED |
| 0228 | 06/20/85            | 02-MS -TV -210   | 010084    | VALVE LEAKS BY                                       | DISASSEMBLE VALVE AND LAP SEAT AND PLUG AS NECESSARY HAVE 100 PERCENT BLUEING  |
| 0228 | 06/20/85            | 02-SI -TV -200A  | 020867    | BONNET BOLTS ON TV ARE LOOSE,                        | TIGHTENED BONNET BOLTS   |
| 0228 | 06/20/85            | 02-SI -TV -200   | 017893    | VLV HAS EXCESSIVE LEAKAGE AS PT 18.4                 | DISASSEMBLED VALVE LAPPED SEATS REASSEMBLED VALVE  |
| 0228 | 06/20/85            | 02-SI -TV -201A  | 017842    | VLV HAS BODY TO BONNET LEAK,                         | DISASSEMBLE VALVE LAP SEAT AND PLUG REASSEMBLE VALVE   |
| 0228 | 06/20/85            | 02-SI -TV -201B  | 019674    | VLV HAS BODY TO BONNET                               | DISASSEMBLE VALVE LAPPED SEATS REASSEMBLED VALVE   |
| 0228 | 06/20/85            | 02-SS -TV -200B  | 017770    | VLV HAS EXCESSIVE LEAKAGE AS PT 18.4                 | DISASSEMBLED VALVE REPLACED PLUG REASSEMBLED VALVE   |
| 0228 | 06/20/85            | 02-SS -TV -201A  | 017771    | EXCESSIVE LEAKAGE AS PER P.T. 18.4                   | DISASSEMBLED VALVE AND REPLACED STEM TIP REASSEMBLED VALVE   |
| 0228 | 06/20/85            | 02-SS -TV -204B  | 017812    | EXCESSIVE LEAKAGE PAST SEAT AS Determined by PT 18.4 | DISASSEMBLED VALVE LAPPED SEAT AND INSTALLED NEW PLUG BELLWAS AND O-RINGS HAVE 100 PERCENT BLUEING   |
| 0228 | 06/21/85            | 02-CH - -11      | 013995    | REPLACE DIAPHRAGM ON 3" GRINEL                       | REMOVED BONNET, INSTALLED DIAPHRAGM O-RINGS & REINSTALLED BONNET.  |
| 0228 | 06/21/85            | 02-CH - -215     | 015797    | DIAPHRAGM CHANGE AS PER 5 YR                         | REMOVED BONNET, REPLACED O-RING IN BONNET & BUSHING, DIAPHRAGM, REINSTALLED BONNET & TORQUED.  |
| 0228 | 06/21/85            | 02-CH - -216     | 015798    | DIAPHRAGM CHANGE AS PER 5 YR                         | REMOVED BONNET, REPLACED DIAPHRAGM O-RING ON BUSHING, O-RING ON BONNET RE-INSTALLED BONNET & TORQUED.  |
| 0228 | 06/21/85            | 02-CH - -217     | 015799    | DIAPHRAGM CHANGE AS PER 5 YR                         | INSTALL DIAPHRAGM INSTALL ORING'S IN BONNET AND BUSHING  |
| 0228 | 06/21/85            | 02-CH - -222     | 015802    | DIAPHRAGM CHANGE AS PER 5 YR                         | REMOVED BONNET, REPLACED DIAPHRAGM, ORING'S AND REPLACED AND SET BONNET Nuts.  |



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|------|---------------------|-------------|-----------|----------|---|--|
| 0228 | 06/21/85            | 02-CH -     | -242      | 015829   | DIAPHRAGM CHANGE AS PER 5 YR                        | REMOVED BONNET, INSTALLED NEW DIAPHRAGM & O-RINGS. REINSTALLED BONNET.   |
| 0228 | 06/21/85            | 02-CH -     | -257      | 015835   | DIAPHRAGM CHANGE AS PER 5 YR                        | REMOVED BONNET, REPLACED O-RING IN BONNET, O-RING IN BUSHING & DIAPHRAGM. REINSTALLED BONNET AND TORQUED.  |
| 0228 | 06/21/85            | 02-CS -     | -28       | 014353   | REPLACE DIAPHRAGM AS PER 5 YR                       | INSTALLED DIAPHRAGM, O-RINGS IN BONNET, O-RINGS IN BUSHING.  |
| 0228 | 06/21/85            | 02-CS -     | -36       | 014367   | REPLACE DIAPHRAGM AS PER 5 YR                       | REMOVED BONNET, REPLACED DIAPHRAGM, ORINGS ON BONNET. REINSTALLED NEW DIAPHRAGM AS PROCEDURE   |
| 0228 | 06/21/85            | 02-RC -     | -12       | 014434   | DIAPHRAGM CHANGE AS PER 5 YR                        | REMOVED BONNET ASSEMBLY. REPLACED VALVE STEM, DIAPHRAGM & O-RINGS. INSTALLED BONNET, ADJUSTED AS PER MAINTENANCE PROCEDURE.  |
| 0228 | 06/22/85            | 02-BS -DR   | -N/A      | 021002   | REPAIR OUTER DOOR AS NECESSARY                      | TIGHTENED BOLTS AND CLOSED DOOR A PERMANENT REPAIR IS REQUIRED   |
| 0228 | 06/22/85            | 02-CH -HCV  | -2310     | 021036   | VALVE HAS PACKING LEAK.                             | ADJUSTED PACKING   |
| 0228 | 06/22/85            | 02-CH -MOV  | -2289B    | 020009   | MOTORS RUNS BUT VLV NEVER MOVED                     | OVERHAULED LIMITORQUE OPERATOR.  |
| 0228 | 06/22/85            | 02-MS -TV   | -201B     | 021034   | EXCESSIVE STROKE TIME PT-14.2                       | LOOSEN PACKING AND LUBRICATE OPERATING LINKAGE   |
| 0228 | 06/23/85            | 02-BS -DR   | -HATCH    | 021037   | REPLACE INNER DOOR POWER PACK.                      | REMOVED OLD UNIT, REINSTALLED NEW UNIT FILLED WITH OIL AND CYCLED UNIT TO TEST OPERATION   |
| 0228 | 06/23/85            | 02-BS -DR   | -N/A      | 021039   | EQUALIZING VALVES ON INNER AND OUTER PERSONNEL.     | STRAIGHTENED SPRINGS-VALVES FUNCTION PROPERLY  |
| 0228 | 06/23/85            | 02-CC -TV   | -210A     | 020689   | REPAIR VALVE OPERATOR LINKAGE                       | REPLACED MISSING NUT AND TIGHTENED UP LINKAGE REINSTALLED KEY IN VALVE SHAFT   |
| 0228 | 06/23/85            | 02-CH -LCV  | -2115E    | 018478   | MOTOR RUNS, DRAWS AMPS BUT<br>Valve does not cycle. | CHECKED VALVE, OPERATED MANUAL LEVER TO HANDWHEEL POSITION & THE VLV FUNCTIONED PROPERLY. REPLACED BROKEN TRIPPER, REPACKED WITH PROPER GREASE & REBOLTED MOTOR.           |
| 0228 | 06/23/85            | 02-CH -MOV  | -2289A    | 020177   | WON'T ENGAGE ELECTRICALLY.                          | REMOVED ALL INTERNAL PARTS. REPLACED NEEDED PARTS. CLEANED & INSPECTED INTERNALS. REPLACED ALL PARTS. REMOVED, REPACKED WITH FRESH CLEAN GREASE.                           |
| 0228 | 06/23/85            | 02-CH -MOV  | -2842     | 021003   | BREAK UNION ON SEAL LEAK OFF                        | REPACKED VALVE, PUT UNION BACK TOGETHER-REMOVED 11 RINGS OF 3/8" REINSTALLED 11 RINGS OF 1/2" PACKING  |
| 0228 | 06/23/85            | 02-CH -P    | -2D       | 014264   | PUMP HAS LOW DISCHARGE AS PER<br>PT 18.9            | DIASSEMBLED PUMP, INSPECTED BEARINGS, SHAFT, MECH. SEAL & OIL SEALS FOUND UNSAT. INSTALLED NEW SHAFT, BRGS, MECH SEAL, OIL SEALS, IMPELLER & ADAPTER BUSHING. RE-INSTALLED |
| 0228 | 06/23/85            | 02-CS -MOV  | -201B     | 019856   | CARBON STEEL ON VALVE ARE<br>Corroded.              | CLEAN RUST FROM STUDS AND APPLY FELD-PRO COATING.  |

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|------|---------------------|------------------|-----------|---|--|
| 0228 | 06/23/85            | 02-CS -MOV -201C | 019855    | CARBON STEEL STUDS ON VALVE                     | CLEAN CORROSION FROM STUDS AND APPLY FELPRO COATING.   |
| 0228 | 06/23/85            | 02-CV -P -1B     | 021043    | REPLACE PUMP, ZERO FLOW.                        | REPLACE PUMP AND INSTALL BIGGER PULLEY ON MOTOR FROM 1-CV-P-1A AS PER WORK ORDER 3806021057  |
| 0228 | 06/23/85            | 02-GW -C -3A     | 021044    | INSTALL BLOWER COVER.                           | INSTALLED BLOWER COVER   |
| 0228 | 06/23/85            | 02-MS -NRV -201A | 017711    | REPACK (NEW PACKING PROGRAM)                    | REMOVED OLD PACKING, INSPECTED STUFFING BOX & STEM, REPACKED WITH GARLOCK 98 5/8" PACKING.   |
| 0228 | 06/23/85            | 02-MS -NRV -201B | 015911    | PACKING LEAK ADJUST                             | REMOVED 11 OLD RINGS & REINSTALLED 10 RINGS OF 5/8" GARLOCK 98   |
| 0228 | 06/23/85            | 02-MS -NRV -201C | 017004    | PACKING OR SEAL LEAK, FIX.                      | REMOVED OLD PACKING, INSPECTED, INSTALLED NEW PACKING  |
| 0228 | 06/23/85            | 02-MS -TV -201B  | 017712    | REPACK (NEW PACKING PROGRAM)                    | REMOVED 6 RINGS ON EACH SIDE, INSPECTED GLAND, STUDS, GLAND FOLLOWER, INSTALLED 6 RINGS OF 3/8" FELPRO STUDS.  |
| 0228 | 06/23/85            | 02-MS -TV -201C  | 008047    | PACKING LEAK ON ROCKER ARM                      | REMOVED 6 RINGS OF PACKING AND REINSTALLED 6 RINGS TO BOTH SIDES.  |
| 0228 | 06/23/85            | 02-MS -TV -201C  | 020100    | FURMANITE PLUG BROKEN OFF.                      | CUT OF PLUG & PEENED CLOSED BY FURMANITE, WELDED PLUG GOOD(SMS)  |
| 0228 | 06/23/85            | 02-MS -TV -201C  | 021033    | EXCESSIVE STROKE TIME PT-14.2                   | LOOSEN PACKING AND LUBRICATE OPERATING LINKAGE   |
| 0228 | 06/23/85            | 02-MS -TV -209   | 010085    | VALVE LEAKS BY                                  | REPLACED GAGE WITH NEW GASKET KIT, UNABLE TO SET STROKE DUE TO INSTRUMENTATION MISSING, BLUING SHOWED 100%.  |
| 0228 | 06/23/85            | 02-RH -MOV -2701 | 018633    | VALVE LEAKS BY                                  | REPACKED VALVE   |
| 0228 | 06/23/85            | 02-SW -MOV -202B | 018641    | LEVER WILL NOT ENGAGE                           | VALVE CHECKED & OPERATED MANUALLY ON 6/2/85 BY OPERATIONS & WITNESSED BY SHEL BUNDY (SMS), VALVE TAGGED & ELECT. DISCONNECTED, VLV SHOULD BE RECHECKED WHEN ELECT. RESTORED. |
| 0228 | 06/23/85            | 02-SW -MOV -203A | 008383    | REMOVE/TEST & REINSTALL FOR Cleaning operations | REMOVED VLV FROM SYSTEM, CLEANED & TESTED VLV, REPLACED VLV IN SYSTEM.   |
| 0228 | 06/23/85            | 02-SW -MOV -203B | 008382    | REMOVE/TEST & REINSTALL FOR Cleaning Operations | REMOVED VLV FROM SYSTEM & CLEANED, TESTED VLV, ADJUSTED OUT LEAKS AND INSPECTED, DANIELS PAINTERS PAINTED VLV BODY, REINSTALLED VALVE.                                       |
| 0228 | 06/23/85            | 02-SW -MOV -203C | 008381    | REMOVE/TEST & REINSTALL FOR Cleaning Operations | REMOVED VLV FROM SYSTEM, CLEANED & TESTED VLV, ADJUSTED & REPLACED VLV IN SYSTEM, DANIELS PAINTERS PAINTED VLV.  |
| 0228 | 06/23/85            | 02-SW -MOV -203D | 008380    | REMOVE/TEST & REINSTALL FOR Cleaning Operations | REMOVED VLV FROM SYSTEM, CLEANED & TESTED VLV, ADJUSTED, REPLACED BACK INTO THE SYSTEM, DANIELS PAINTERS PAINTED VLV.  |
| 0228 | 06/23/85            | 02-SW -MOV -204A | 008375    | REMOVE/TEST & REINSTALL FOR Cleaning Operations | REMOVED VALVE FROM SYSTEM, CLEANED, TESTED, PAINTED BY DANIELS PAINTERS & REINSTALLED VALVE IN SYSTEM.   |
| 0228 | 06/23/85            | 02-SW -MOV -204B | 008374    | REMOVE/TEST & REINSTALL FOR Cleaning Operations | REMOVED VALVE FROM SYSTEM, CLEANED VALVE, TESTED, PAINTED BY DANIELS Painter, Reinstalled in system  |



| DEPT | RETURNED TO SERVICE | MARK NUMBER      | WO NUMBER | WO TITLE   | HISTORY SUMMARY   |
|------|---------------------|------------------|-----------|--|---|
| 0228 | 06/23/85            | 02-SW -MOV -204C | 008373    | REMOVE/TEST & REINSTALL FOR<br>Cleaning Operations | REMOVED VALVE FROM SYSTEM, CLEANED<br>AND TESTED VALVE. PAINTED BY DANIEL<br>PAINTER. RE-INSTALLED VALVE IN<br>SYSTEM.                          |
| 0228 | 06/23/85            | 02-SW -MOV -204D | 008372    | REMOVE/TEST & REINSTALL FOR<br>Cleaning Operations | REMOVED VALVE FROM SYSTEM, CLEANED<br>AND TESTED VALVE. VALVE WAS PAINTED<br>BY DANIEL'S PAINTERS. RE-INSTALLED<br>VALVE IN SYSTEM.             |
| 0228 | 06/23/85            | 02-SW -MOV -205A | 008367    | REMOVE/TEST & REINSTALL FOR<br>Cleaning Operations | REMOVED VALVE FROM SYSTEM, CLEANED<br>AND TESTED VALVE. DANIELS PAINTED.<br>RE-INSTALLED VALVE.   |
| 0228 | 06/23/85            | 02-SW -MOV -205B | 008366    | REMOVE/TEST & REINSTALL FOR<br>Cleaning Operations | REMOVED VALVE FROM SYSTEM, CLEANED<br>AND TESTED VALVE. DANIELS PAINTED<br>VALVE BODY. REINSTALLED VALVE INTO<br>SYSTEM.                        |
| 0228 | 06/23/85            | 02-SW -MOV -205C | 008365    | REMOVE/TEST & REINSTALL FOR<br>Cleaning Operations | REMOVED VALVE FROM SYSTEM, CLEANED<br>& TESTED VALVE. DANIEL'S PAINTERS<br>PAINTED VALVE. REINSTALLED VALVE IN<br>SYSTEM.                       |
| 0228 | 06/23/85            | 02-SW -MOV -205D | 008364    | REMOVE/TEST & REINSTALL FOR<br>Cleaning Operations | REMOVED VALVE FROM SYSTEM, CLEANED<br>AND TESTED VALVE. PAINTED BY<br>DANIELS PAINTERS. REINSTALLED INTO<br>SYSTEM.                             |
| 0228 | 06/24/85            | 02-CH - -10      | 013982    | CHANGE DIAPHRAGM ON 2" GRINNEL                     | REMOVED BONNET, INSTALLED NEW O-<br>RINGS AND DIAPHRAGM. REINSTALLED<br>BONNET.   |
| 0228 | 06/24/85            | 02-CH - -442     | 015806    | DIAPHRAGM CHANGE AS PER 5 YR                       | REMOVED BONNET ASSEMBLY, REPLACED<br>STEM ASSEMBLY, O-RINGS, DIAPHRAGM.<br>REINSTALLED BONNET ASSEMBLY, AD-<br>JUSTED AS PER MAINT. PROCEDURES. |
| 0228 | 06/24/85            | 02-CH -P -2C     | 021052    | LOW DISCHARGE PRESSURE ADJUST                      | ADJUSTED IMPELLER CLEAR TO .015 RAN<br>PUMP PT-SAT  |
| 0228 | 06/24/85            | 02-CS - -30      | 014356    | REPLACE DIAPHRAGM AS PER 5 YR                      | INSTALLED NEW VALVE BONNET.   |
| 0228 | 06/24/85            | 02-CS - -31      | 014358    | REPLACE DIAPHRAGM AS PER 5 YR                      | INSTALLED NEW VALVE BONNET.   |
| 0228 | 06/24/85            | 02-CS - -33      | 014360    | REPLACE DIAPHRAGM AS PER 5 YR                      | INSTALLED DIAPHRAGM, INSTALLED<br>O-RINGS IN BONNET & BUSHING.  |
| 0228 | 06/24/85            | 02-CS - -46      | 015814    | REPLACE DIAPHRAGM AS PER 5 YR                      | REMOVED BONNET, REPLACED OLD BONNET<br>WITH NEW BONNET ASSY. REPLACED<br>DIAPHRAGM, RE-INSTALLED BONNET AND<br>TORQUED.                         |
| 0228 | 06/24/85            | 02-CS - -47      | 017694    | REPLACE DIAPHRAGM ON GRINNELL                      | REMOVED BONNET, REPLACED DIAPHRAGM,<br>AND O-RINGS, RE-INSTALLED BONNET.<br>PUT VALVE BACK INTO SYSTEM.   |
| 0228 | 06/24/85            | 02-CS - -72      | 015819    | REPLACE DIAPHRAGM AS PER 5 YR                      | REMOVED BONNET, REPLACED O-RINGS &<br>DIAPHRAGM, RE-INSTALLED BONNET AS<br>PER PROCEDURE.   |
| 0228 | 06/24/85            | 02-CS - -73      | 015820    | REPLACE DIAPHRAGM AS PER 5 YR                      | REMOVED BONNET, REPLACED DIAPHRAGM<br>AND O-RINGS. RE-INSTALLED BONNET<br>AS PER PROCEDURE.   |
| 0228 | 06/24/85            | 02-CS - -76      | 015822    | REPLACE DIAPHRAGM AS PER 5 YR                      | INSTALLED DIAPHRAGM, INSTALLED O-<br>RING IN BONNET, INSTALLED O-RING   |

| DEPT | RETURNED TO SERVICE | MARK NUMBER       | WO NUMBER | WO TITLE                            | HISTORY SUMMARY  |
|------|---------------------|-------------------|-----------|-------------------------------------|--|
|      |                     |                   |           |                                     | IN BUSHING   |
| 0228 | 06/24/85            | 02-CS - -77       | 015823    | REPLACE DIAPHRAGM AS PER 5 YR       | INSTALLED DIAPHRAGM, INSTALLED O-RINGS IN BONNET, INSTALLED O-RING AND BUSHINGS.   |
| 0228 | 06/24/85            | 02-CS -FNG -NA    | 020958    | INSTALL BLANK FNG IN DISCH PIP-ing  | INSTALLED PANCAKE BLANKS 6-20-85 REMOVED BLANKS AND MADE-UP FLANGE   |
| 0228 | 06/24/85            | 02-CS -FNG -NA    | 020959    | INSTALL BLANK FNG IN DISCH PIP-ing  | INSTALLED PANCAKE BLANKS, REMOVED BLANKS AND MADE-UP FLANGES   |
| 0228 | 06/24/85            | 02-CW -MOV -200D  | 020948    | REPLACE PIN IN LINKAGE              | REPLACED PIN 1/4" ROLL PIN   |
| 0228 | 06/24/85            | 02-DA -TV -200A   | 017991    | VLV LEAKS BY EXCESSIVELY AS PT 18.4 | DISASSEMBLED VALVE, VALVE SEAT & DISC LAPPED, VALVE RE-ASSEMBLED.  |
| 0228 | 06/24/85            | 02-DA -TV -200B   | 019673    | OVHL VALVE, EXCESSIVE LEAKAGE       | DISASSEMBLED VALVE AND REPAIRED AS NECESSARY.  |
| 0228 | 06/24/85            | 02-DG -TV -208A   | 020869    | VALVE HAS PACKING LEAK,             | ADJUSTED PACKING   |
| 0228 | 06/24/85            | 02-MG -TV -201B   | 020047    | PACKING LEAK ON BOTH PACKING        | ADJUSTED PACKING   |
| 0228 | 06/24/85            | 02-RC - -11       | 021117    | ADJUST/REPACK VALVE                 | ADJUSTED PACKING   |
| 0228 | 06/24/85            | 02-RC -P -1C      | 013792    | UNCOUPLE/RECOUPLE FOR ELECT         | UNCOUPLED PUMP TO MOTOR 4/9, ALIGNED & RECOUPLED PUMP TO MOTOR.  |
| 0228 | 06/24/85            | 02-RC -P -1C      | 017768    | REPLACE PUMP SEALS                  | UNCOUPLED 4/9, REMOVED MTR STAND BOLTS, DISCONNECTED CC & SI LINES, CHANGED SEAL #2, INSTALLED MOTOR, MOTOR STAND BOLTS, CONNECTED CC & SI LINES, RECOUPLED PUMP |
| 0228 | 06/25/85            | 02-CH -MOV -2270A | 020555    | VALVE WILL NOT CLOSE                | SWP FOR INVESTIGATION AND MINOR REP AIR ONLY, REPLACED TORQUE SWITCH SETTING 0-2 C-1   |
| 0228 | 06/25/85            | 02-RC - -81       | 021118    | ADJUST/REPACK VALVE                 | WAS NOT LEAKING VALVE THAT WAS LEAKING WAS 2-RC-82   |
| 0228 | 06/25/85            | 02-RC - -82       | 021147    | ADJUST PACKING                      | ADJUSTED PACKING   |
| 0228 | 06/25/85            | 02-RC -MOV -2595  | 020542    | LEAK AROUND STUFFING BOX            | DISASSEMBLE VALVE AND REMOVED GATE AND INSTALLED NEW GASKET AND REASSEMBLED VALVE  |

| DEPT | RETURNED TO SERVICE | MARK NUMBER | WO NUMBER | WO TITLE   | HISTORY SUMMARY  |
|------|---------------------|-------------|-----------|--|--|
| 0228 | 06/26/85            | 02-BD -     | -23       | 020078 BODY TO BONNET LEAK                                 | CUT OLD VALVE OUT OF SYSTEM. CLEANED OLD PIPING.   |
| 0228 | 06/26/85            | 02-BG -DR   | -NA       | 010428 REPLACE DOOR  | DOOR TO BE REPLACED DURING DC PACKAGE (RENOVATION)   |
| 0228 | 06/26/85            | 02-CH -P    | -2D       | 021053 LOW DISCHARGE PRESSURE                              | ADJUSTED IMPELLER CLEAR TO .015 INCH PUMP PT-SAT   |
| 0228 | 06/26/85            | 02-RC -     | -41       | 020999 PACKING LEAK  | ADJUSTED PACKING   |
| 0228 | 06/26/85            | 02-RC -     | -50       | 020993 PACKING LEAK  | ADJUSTED PACKING   |
| 0228 | 06/26/85            | 02-SI -     | -241      | 016310 REMOVE/INSTALL CHECK VALVE                          | REMOVE CAP FOR INSPECTION AND INSTALLED NEW GASKET   |
| 0228 | 06/26/85            | 02-SI -     | -242      | 016311 REMOVE/INSTALL CHECK VALVE CAP<br>for PT 18.11      | REMOVE CAP FOR INSPECTION INSTALL NEW GASKET   |
| 0228 | 06/26/85            | 02-SI -     | -242      | 021035 TIGHTEN BONNET (OR REPLACE<br>Gasket if required)   | TIGHTEN BONNET   |
| 0228 | 06/26/85            | 02-SI -     | -243      | 016312 REMOVE/INSTALL CHECK VALVE                          | REMOVE CAP FOR INSPECTION AND INSTALLED NEW GASKET REINSTALLED CAP.  |
| 0228 | 06/26/85            | 02-SI -     | -338      | 020530 REPLACE VALVE                                       | WORKED JOB ON 89.15  |
| 0228 | 06/26/85            | 02-SI -     | -91       | 020994 BODY TO BONNET LEAK APPROX.                         | RETORQUE BONNET TO 250 FT-LBS SLOW LEAK DOWN TO LESS THAN 10 DPM. SHOULD STOP WHEN VALVE GETS TO FULL TEM P. |
| 0228 | 06/26/85            | 02-SS -TV   | -202A     | 017728 VALVE LEAKS EXCESSIVELY FAST<br>Seal as per PT 18.4 | REPLACE VALVE  |
| 0228 | 06/27/85            | 02-BG -MISC | -NA       | 020536 FABRICATE PIPE RACK                                 | FABRICATED AND INSTALLED PIPE RACK IN WELD SHOP  |
| 0228 | 06/27/85            | 02-CH -P    | -1A       | 016495 PM - ON DEMAND                                      | PM LUBED CH-P-M/A1   |
| 0228 | 06/27/85            | 02-CH -P    | -1C       | 021104 AUX LUBE OIL PUMP DOES NOT<br>Pump                  | SWP FOR INVESTIGATION ONLY BRIDGED AND HEGGERED OK   |
| 0228 | 06/27/85            | 02-MS -SV   | -NA       | 009529 TEST VALVES PT 13.2                                 | SV-MS-201B, 202B, 203B, 204B AND 205B SETPOINTS WERE TESTED.   |
| 0228 | 06/27/85            | 02-MS -SV   | -NA       | 009530 TEST VALVES PT 13.3                                 | SV-MS-201C, 202C, 203C, 204C AND 205C SETPOINTS WERE TESTED.   |
| 0228 | 06/27/85            | 02-MS -SV   | -NA       | 009531 TEST VALVES IAW PT 13.1                             | SV-MS-201A, 202A, 203A, 204 AND 205A SETPOINTS WERE TESTED.  |
| 0228 | 06/27/85            | 02-RS -MOV  | -256B     | 021241 REPLACE PIN IN LIMITORQUE                           | UNBOLTED LIMITORQUE LIFTED OFF REMOVE OLD PIN AND REPLACED WITH NEW ONE. REPLACED LIMITORQUE.                |
| 0228 | 06/28/85            | 02-CH -MOV  | -2350     | 020108 REPAIR LIMITORQUE OPERATOR                          | REMOVED LIMITORQUE DISASSEMBLED INCLUTCHING FORK BENT REPLACED FORK REASSEMBLED                              |

VEPCO SAFETY RELATED DURING REDUCED POWER SORTED BY UNIT AND DEPARTMENT  
 FROM 06/01/85 THRU 06/30/85  
 UNIT 02 SURRY

| DEPT | RETURNED TO<br>SERVICE | MARK NUMBER | WO<br>NUMBER | WO TITLE  | HISTORY SUMMARY   |
|------|------------------------|-------------|--------------|---|---|
| 0228 | 06/28/85               | 02-FW -     | -172         | 001799 OPEN AND INSPECT VALVE                                       | DISASSEMBLE VALVE LAPPED SEAT AND DISC HAVE 100% BLUEING  |
| 0228 | 06/28/85               | 02-RS -P    | -1A          | 005320 MOTOR BASE TO PHASE AMP READ-<br>ing have unusual variation. | TIGHTENED CONNECTION BEHIND MCC CEN<br>TER 4/10/85. BRIDGED AND MEGGERED<br>INSTALLED AND REPLACED PECKER HEAD<br>COVER CHECKED CABLES AND CONNECTION<br>S FOR BURNS AND CHARGING NO PROBLEMS |
| 0228 | 06/28/85               | 02-SS -TV   | -202B        | 017727 VALVE LEAKS EXCESSIVELY PAST<br>seat as per PT-18.4          | REPLACE VALVE WITH NEW  |
| 0228 | 06/28/85               | 02-SS -TV   | -206A        | 017729 VALVE LEAKS BY AS PER PT 16.4                                | REMOVED OLD VALVE CLEANED TUBING<br>FITTED AND WELDED IN NEW VALVE<br>Q.C. VISUAL AND NDE PT SAT  |
| 0228 | 06/29/85               | 02-MS -MOV  | -226         | 021275 INSTRUMENTATION ERRATIC                                      | PERFORMED CAL 260 FOUND I/O CHIP<br>BAD IN MONITOR READOUT ASSY. REPLACE<br>D SAME PERFORMED DETECTOR CALIBRATI<br>ON FOUND HI RANGE DETECTOR BAD CAUS<br>ING HIGH AND MID RANGE DETECTORS    |

MAINTENANCE OF SAFETY RELATED SYSTEMS DURING  
OUTAGE OR REDUCED POWER PERIODS

UNIT NO. 1

ELECTRICAL MAINTENANCE

MAINTENANCE OF SAFETY RELATED SYSTEMS DURING  
OUTAGE OR REDUCED POWER PERIODS

UNIT NO. 2

ELECTRICAL MAINTENANCE

VEPCO SAFETY RELATED DURING REDUCED POWER SORTED BY UNIT AND DEPARTMENT  
FROM 06/01/85 THRU 06/30/85  
UNIT 02 SURRY

| DEPT | RETURNED TO SERVICE | MARK NUMBER       | WO NUMBER | WO TITLE                       | HISTORY SUMMARY   |
|------|---------------------|-------------------|-----------|--------------------------------|---|
| 0229 | 06/01/85            | 02-FW -MOV -251F  | 013826    | REPLACE AGASTAT TIMER          | REPLACED AGASTAT 4485 CYCLED SAT 6-1-85<br>AGASTAT 4605291  |
| 0229 | 06/02/85            | 02-EPL-BKR -24H2  | 018927    | REPAIR ANTI-PUMP CIRCUIT       | REPLACED CONTROL DEVICE AND TESTED ANTI-PUMP CURRENT TESTED OK<br>BREAKER TESTED SAT 6/2/85   |
| 0229 | 06/02/85            | 02-GW -C -3A      | 018414    | INVESTIGATE & CLEAR LOW MEGGER | MOTOR MEGS 500R TURNED MOTOR BY HAND<br>I PLACED HEAT AT EACH END OF MOTOR<br>ASSEMBLED MOTOR A+B 1.89 A+C 1.89<br>BLUE TO GROUND 32 MR TEST RAN SAT 6/2/85 |
| 0229 | 06/03/85            | 02-CS -MOV -200B  | 018429    | PM - ON DEMAND                 | MEGGER READING TO GROUND WAS 4.3 MR<br>GEARS ON VALVE FOR MOTOR NEEDS<br>REPACKED WITH GREASE<br>CYCLED VALVE SAT 6/3/85                                    |
| 0229 | 06/04/85            | 02-EPL-MCH -4     | 017967    | PM - ON DEMAND                 | PERFORMED PMS ON SAID BREAKER AND<br>REPLACED 12 LUGS ON AUX SWITCHES<br>AS PER LETTER FROM MANUFACTURE<br>BREAKER TESTED SAT                               |
| 0229 | 06/04/85            | 02-EPL-MCJ -4     | 017966    | PM - ON DEMAND                 | PERFORMED PMS AND REPLACED 12 LUGS<br>ON AUX SWITCHES AS PER LETTER FROM<br>BREAKER MANUFACTURER. BREAKER TESTED<br>SAT 6/2/85<br>LUGS (12) 3430800         |
| 0229 | 06/04/85            | 02-EPL-MCJ -5     | 018957    | PM - ON DEMAND                 | PERFORMED PMS   |
| 0229 | 06/04/85            | 02-SW -MOV -201B  | 018260    | PM - ON DEMAND                 | PERFORMED PMS AND CYCLED VALVE SAT  |
| 0229 | 06/04/85            | 02-SW -MOV -204C  | 017963    | PM - ON DEMAND                 | PERFORMED PMS   |
| 0229 | 06/04/85            | 02-SW -MOV -204D  | 017962    | PM - ON DEMAND                 | PERFORMED PMS UP TO STEP 5.9<br>5/27/85 TEST RUN 5/28/85  |
| 0229 | 06/04/85            | 02-SW -MOV -205B  | 008362    | ELECT. DISCONNECT/RECONNECT    | DISCONNECTED MOV NEED COVER BOLT AND<br>3/4" FLEX APPROX 2' LONG<br>RELEASED RED TOP FOR VALVE TESTING<br>RECONNECTED MOV AND TESTED SAT<br>5/30/85         |
| 0229 | 06/05/85            | 02-CH -MOV -2270A | 017724    | VALVE DOES NOT GO CLOSED       | TORQUE SWITCH IS BAD ESK 6BL. RE-<br>PLACED TORQUE SWITCH & CYCLED VALVE TO<br>CHECK LIMITS & LIGHT INDICATORS. VALVE<br>OPERATION WAS SET.                 |



| DEPT | RETURNED TO SERVICE | MARK NUMBER       | WO NUMBER | WO TITLE                       | HISTORY SUMMARY  |
|------|---------------------|-------------------|-----------|--------------------------------|--|
| 0229 | 06/05/85            | 02-CH -MOV -2286B | 020369    | CHECK TORQUE SWITCH SETTINGS   | OBTAINED TORQUE SWITCH SETTINGS  |
| 0229 | 06/05/85            | 02-CH -MOV -2286C | 020368    | CHECK TORQUE SWITCH SETTINGS   | CHECK TORQUE SWITCH SETTINGS   |
| 0229 | 06/05/85            | 02-CH -MOV -2287B | 020365    | VERIFY TORQUE SWITCH SETTING   | OBTAINED TORQUE SWITCH SETTINGS  |
| 0229 | 06/05/85            | 02-EPL-BKR -24HS  | 016688    | PM - ON DEMAND                 | PERFORMED PMS  |
| 0229 | 06/05/85            | 02-EPL-MCH -2     | 018878    | PM - ON DEMAND                 | PERFORMED PMS  |
| 0229 | 06/05/85            | 02-EPL-MCH -7     | 020166    | PM - ON DEMAND                 | PERFORMED PMS  |
| 0229 | 06/05/85            | 02-EPL-MCJ -8     | 020107    | PM - ON DEMAND                 | PERFORMED PMS  |
| 0229 | 06/05/85            | 02-EPL-MCJ -9     | 018879    | PM - ON DEMAND                 | PERFORMED PMS  |
| 0229 | 06/05/85            | 02-FW -MOV -251A  | 020340    | PM - ON DEMAND                 | PERFORMED PMS  |
| 0229 | 06/05/85            | 02-FW -MOV -251B  | 017957    | PM - ON DEMAND                 | PERFORMED PMS AS PER PROCEDURE   |
| 0229 | 06/05/85            | 02-FW -MOV -251B  | 018180    | ELECT. DISCONNECT/RECONNECT    | DISCONNECTED MOV AS PER EMP-C-MOV-11, RECONNECTED MOTOR AND LIMITS ADJUSTED AS PER PROCEDURE EMP-C-MOV-11<br>UNABLE TO CHECK ROTATION OF MOTOR TAGS MISSING 5/23/85                      |
| 0229 | 06/05/85            | 02-FW -MOV -251C  | 020339    | PM - ON DEMAND                 | PERFORMED PMS  |
| 0229 | 06/05/85            | 02-FW -MOV -251D  | 017956    | PM - ON DEMAND                 | COMPLETED STEPS 3.1-5.8<br>REQUIRES ELEC RUN AND LOAD CK<br>COMPLETED PMS 6-1-85   |
| 0229 | 06/05/85            | 02-FW -MOV -251D  | 018179    | ELECT. DISCONNECT/RECONNECT    | DISCONNECTED MOV AS PER EMP-C-MOV-11 4/8/85, RECONNECTED, COMPLETED STEPS 3.1-5.23 REQUIRE ELEC RUN AND LOAD CHECK, COMPLETED SAT  |
| 0229 | 06/05/85            | 02-FW -MOV -251E  | 020338    | PM - ON DEMAND                 | PERFORMED PMS  |
| 0229 | 06/05/85            | 02-FW -MOV -251F  | 017955    | PM - ON DEMAND                 | PERFORMED PMS ON VALVE AND CYCLED SAT 6-1-85   |
| 0229 | 06/05/85            | 02-FW -MOV -251F  | 018178    | ELECT. DISCONNECT/RECONNECT    | DISCONNECTED MOV AS PER EMP-C-MOV-11 RECONNECTED MOV CABLE MARKINGS POOR, VALVE CYCLED SAT<br>GASKET COVER 4606098   |
| 0229 | 06/05/85            | 02-HS -MOV -201A  | 018030    | PM - ON DEMAND                 | PERFORMED PMS  |
| 0229 | 06/05/85            | 02-HS -MOV -201B  | 018029    | PM - ON DEMAND                 | PERFORMED EMP-C-MOV-143  |
| 0229 | 06/05/85            | 02-RC -MOV -2535  | 020337    | PM - ON DEMAND                 | PERFORMED PMS  |
| 0229 | 06/05/85            | 02-RS -MOV -255B  | 019627    | DISCONNECT/RECONNECT FOR MECH. | DISCONNECTED VALVE FOR MECHS 5/16<br>RECONNECTED MOTOR, VALVE DRAWING EXCESSIVE CURRENT IN THE CLOSE DIRECTION, ADJUSTED LIMITS CHECKED<br>MOTOR ROTATION REVERSED LEADS/SAT             |
| 0229 | 06/05/85            | 02-RS -MOV -256A  | 019281    | ELECT. DISCONNECT/RECONNECT    | DISCONNECTED FOR MECHS 5/16/85, MOV RECONNECTED BUT S.S. WOULD NOT LET VALVE BE OPENED BY HAND IN STEP 5.16, MOV CYCLED SAT 5/28/85  |
| 0229 | 06/05/85            | 02-RS -MOV -256B  | 019554    | ELECT DISCONNECT/RECONNECT     | PERFORMED STEPS UP TO 5.7 ELECTRICALY DISCONNECTING MOV 256B PERFORMED<br>Steps 5.9-5.2.0 Limit need to be adjusted.<br>Submitted MR. Completed PMS adjusted Limits adjusted and cycled. |

| DEPT | RETURNED TO SERVICE | MARK NUMBER       | WO NUMBER | WO TITLE                        | HISTORY SUMMARY  |
|------|---------------------|-------------------|-----------|---------------------------------|--|
| 0229 | 06/05/85            | 02-SI -MOV -2865A | 020345    | PM - ON DEMAND                  | PERFORMED EMP-C-MOV-143  |
| 0229 | 06/05/85            | 02-SI -MOV -2865B | 020344    | PM - ON DEMAND                  | PERFORMED EMP-C-MOV-143  |
| 0229 | 06/05/85            | 02-SI -MOV -2865C | 020343    | PM - ON DEMAND                  | PERFORMED PMS  |
| 0229 | 06/05/85            | 02-SI -MOV -2885A | 020425    | VERIFY TORQUE SWITCH SETTINGS   | OBTAINED TORQUE SWITCH SETTINGS  |
| 0229 | 06/05/85            | 02-SI -MOV -2885C | 020347    | PM - ON DEMAND                  | INSPECTED 6/5/85   |
| 0229 | 06/05/85            | 02-SI -TV -200    | 017926    | ELECTRICAL DISCONNECT/RECONNECT | REMOVED SOLENOID LIMIT SWITCHES<br>INSTALLED AND VALVE CYCLED SAT  |
| 0229 | 06/05/85            | 02-SS -TV -201A   | 017829    | ELECTRICAL DISCONNECT/RECONNECT | FOUND AIR LINES LEAKING TO SOV,<br>TIGHTENED AIR LINES, SOV ENERGIZED,<br>CORRECTED INDICATION LIGHTS,<br>VALVE CYCLED SAT.  |
| 0229 | 06/05/85            | 02-SS -TV -202A   | 017949    | ELECT. DISCONNECT/RECONNECT     | ELECTRICALLY DISCONNECTED. TERMINAL<br>BLOCK IS CRACKED BETWEEN TERMINALS<br>LEAD LIFTED IN CONTROL ROOM V BD<br>SS-209A TBV11E TERM 8. LEADS RECONNECTED,<br>CYCLED, AND TESTED |
| 0229 | 06/05/85            | 02-SS -TV -202B   | 017948    | ELECT. DISCONNECT/RECONNECT     | DISCONNECTED SS-TV-202B FOR MECH.<br>5/2. RECONNECTED & OPERATED. SAT IF<br>NEED TWO COIL SHELL RETAINING BOLTS<br>VALVE CYCLED SAT.   |
| 0229 | 06/05/85            | 02-SS -TV -206B   | 017774    | ELECTRICAL DISCONNECT/RECONNECT | ELECTRICALLY DISCONNECTED TV-SS-206<br>B FOR MECH 5/2/85 RECONNECTED AND<br>OPERATED SAT 5/25/85 NEED ONE OIL<br>SHELL RETAINING BOLT VALVE CYCLED<br>SAT-O-RING 0760317         |
| 0229 | 06/05/85            | 02-SW -MOV -204B  | 017964    | PM - ON DEMAND                  | PERFORMED PMS  |
| 0229 | 06/06/85            | 02-RC -MOV -2586  | 018523    | PM - ON DEMAND                  | FOUND KEY MISSING IN MANUAL HANDLE<br>FOR MOV-2586   |
| 0229 | 06/06/85            | 02-SI -MOV -2885B | 020427    | VERIFY TORQUE SWITCH SETTING    | OBTAINED TORQUE SWITCH SETTINGS  |
| 0229 | 06/06/85            | 02-SI -MOV -2885C | 020423    | VERIFY TORQUE SWITCH SETTING    | OBTAINED TORQUE SWITCH SETTINGS  |

| DEPT | RETURNED TO SERVICE | MARK NUMBER       | WO NUMBER | WO TITLE                                      | HISTORY SUMMARY  |
|------|---------------------|-------------------|-----------|---|--|
| 0229 | 06/06/85            | 02-SI -MOV -2885D | 020424    | VERIFY TORQUE SWITCH SETTING                  | OBTAINED TORQUE SWITCH SETTINGS  |
| 0229 | 06/07/85            | 02-BS -DR -HATCH  | 012454    | RELAMP INDICATING LIGHTS,                     | RELAMP HATCH 6-7-85 CASTILLO-WYATT   |
| 0229 | 06/07/85            | 02-CH -HCV -2310  | 020376    | REINSTALL/REPAIR/ADJUST VALVE                 | INSTALLED NEW LIMIT SWITCHES AND ADJUSTED FOR PROPER LIGHT INDICATION, OPERATION OF VALVE WAS SAT.   |
| 0229 | 06/07/85            | 02-CH -HCV -2311  | 020377    | SET/ADJUST LIMITS                             | REINSTALLED LIMIT SWITCHES AND READJUSTED FOR PROPER INDICATION LIGHTS OPERATION WAS SAT   |
| 0229 | 06/07/85            | 02-CH -MOV -2269B | 020400    | CHECK TORQUE SWITCH SETTINGS                  | PERFORMED EMP-C-MOV-143 6/6/85   |
| 0229 | 06/07/85            | 02-CH -MOV -2270B | 020372    | CHECK TORQUE SWITCH SETTING                   | CHECK TORQUE SWITCH SETTINGS   |
| 0229 | 06/07/85            | 02-CH -MOV -2275B | 020371    | CHECK TORQUE SWITCH SETTINGS                  | PERFORMED EMP-C-MOV-143 6/6/85   |
| 0229 | 06/07/85            | 02-CH -MOV -2275C | 020370    | CHECK TORQUE SWITCH SETTINGS                  | CHECK TORQUE SWITCH SETTING  |
| 0229 | 06/07/85            | 02-CH -MOV -2287C | 020366    | VERIFY TORQUE SWITCH SETTING                  | CHECK TORQUE SWITCH SETTINGS   |
| 0229 | 06/07/85            | 02-CH -MOV -2373  | 020412    | VERIFY TORQUE SWITCH SETTINGS                 | CHECK TORQUE SWITCH SETTINGS   |
| 0229 | 06/07/85            | 02-MS -TV -209    | 010504    | DISCONNECT/RECONNECT SWITCHES                 | REMOVED LIMIT SWITCHES DID NOT DISCONNECT RECONNECTED LIMIT SWITCHES AND SOV SAT   |
| 0229 | 06/07/85            | 02-MS -TV -210    | 010505    | DISCONNECT/RECONNECT SWITCHES                 | REMOVED LIMIT SWITCH AND SOV 4-1-85 RECONNECTED LIMIT SWITCHES AND SOV-TESTED SAT  |
| 0229 | 06/07/85            | 02-SI -MOV -2863B | 020420    | VERIFY TORQUE SWITCH SETTING                  | PERFORMED EMP-C-MOV-143 6/6/85   |
| 0229 | 06/09/85            | 02-SW -MOV -202B  | 018258    | PM - ON DEMAND                                | PERFORM PMS ON MOV. SUBMITTED WO TO MECHS 070586 WO 018641 PMS COMPLETE AND VALVE CYCLED SAT 6/9/85  |
| 0229 | 06/10/85            | 02-EPL-BKR -25J3  | 004677    | REPLACE PIN AND SPRING                        | REPLACED COTTER PIN/SPRING 6/10/85 MFGR DATE 10-69 SERIAL #44252-F3-6-10B PIN 4604937 SPRING 4604936   |
| 0229 | 06/10/85            | 02-FW -MOV -260A  | 020406    | VERIFY TORQUE SWITCH SETTINGS                 | CHECK TORQUE SWITCH PROCEDURE EMP-C-EPL-143  |
| 0229 | 06/10/85            | 02-FW -MOV -260B  | 020409    | VERIFY TORQUE SWITCH SETTINGS                 | CHECKED TORQUE SWITCH WITH PROCEDURE EMP-C-MOV-143   |
| 0229 | 06/10/85            | 02-FW -P -3B      | 020076    | 2-FW-P-3B DID NOT AUTO START                  | WORK PERFORMED BY AUTOMATION CONTROL/FOUND TRIP FUSES FOR 25B5/25C6 PULLED CAUSING 2-FW-P-3B NOT TO AUTO START WHEN REQUIRED 6/10/85               |
| 0229 | 06/10/85            | 02-RC -TI -NA     | 018866    | REPLACE TERMINAL STRIPS ON Back of low levels | REPLACED TERMINAL STRIPS ON ALL SIX 6 LOW LEVELS RTD SIDE ONLY, CHECKED OUT DURING LOOP CAL. WO 3800011718   |
| 0229 | 06/10/85            | 02-VS -MOV -201   | 020418    | VERIFY TORQUE SWITCH SETTING                  | CHECKED TORQUE SWITCH AS PER PROCEDURE EMP-C-MOV-143 6/10/85   |
| 0229 | 06/11/85            | 02-CS -MOV -203D  | 020527    | MOV HAS ZERO RESISTANCE TO ground             | INVESTIGATED GROUND FOUND A SCREW STUCK BETWEEN THE WIRE LUG AND A METAL STRIP UNDER THE MAIN CONTROL RM BENCH BOARD, REMOVED SCREW GROUND CLEARED |
| 0229 | 06/11/85            | 02-EPL-BKR -25H1  | 004671    | REPLACE PIN AND SPRING                        | INSTALLED SPRING AND REPLACED  |

| DEPT | RETURNED TO SERVICE | MARK NUMBER       | WO NUMBER | WO TITLE  | HISTORY SUMMARY  |
|------|---------------------|-------------------|-----------|---|--|
| 0229 | 06/11/85            | 02-EPM-BKR -25H6  | 004654    | REPLACE PIN AND SPRING                              | PIN AND SPRING REPLACED 4/3/85<br>MFGR DATE 10-69 SERIAL# 44252-E3-6-10B<br>PIN 4604937 SPRING 4604936 |
| 0229 | 06/11/85            | 02-RC -MOV -2587  | 020362    | CHECK TORQUE SWITCH SETTINGS                        | INSPECTED MOV-2287   |
| 0229 | 06/11/85            | 02-RI -ALM -E-G10 | 020075    | ALARM E-G-10 SHOULD BE IN WITH 2 steam generators   | NO PROBLEM FOUND   |
| 0229 | 06/11/85            | 02-SW -MOV -202A  | 020426    | VERIFY TORQUE SWITCH SETTING                        | CHECK TORQUE SWITCH SETTINGS<br>BRIDGE AND MEGGERED SAT<br>SDC-638                                     |
| 0229 | 06/11/85            | 02-SW -MOV -202B  | 016132    | DISCONNECT/RECONNECT MOV FOR Limitorque Maintenance | DISCONNECTED FOR MECH 4/22/85<br>RECONNECTED AND TESTED CYCLED OK                                      |
| 0229 | 06/11/85            | 02-SW -P -10A     | 020441    | DISCONNECT FOR MECHANICS                            | DISCONNECTED MOTOR AND GROUND<br>STRAP 6-5-85. RECONNECTED MTRS<br>BRIDGE AND MEGGERED SAT             |
| 0229 | 06/13/85            | 02-FW -MOV -251C  | 013787    | REPLACE AGASTAT TIMER                               | REPLACED AGASTAT TIMER CONNECTED 61<br>-62 COIL LEADS 5/25/85 COMPLETED<br>MR AGASTAT OK               |
| 0229 | 06/14/85            | 02-CC -TV -209A   | 018079    | INSTALL JUMPER TO KEEP VALVE open for Type A test.  | JUMPER INSTALLED FROM CC209AC3 TO<br>CC209AX1 5/27/85. REMOVED JUMPER<br>6/11                          |
| 0229 | 06/14/85            | 02-CC -TV -210A   | 018078    | INSTALL JUMPER TO KEEP VALVE                        | JUMPER INSTALLED FROM CC210AC3 TO<br>CC210AX1 5/27/85. REMOVED JUMPER<br>6/11.                         |
| 0229 | 06/14/85            | 02-CC -TV -210B   | 018077    | INSTALL JUMPER TO KEEP VALVE                        | JUMPER INSTALLED FROM CC210BC3 TO<br>CC210BX1 5/27/85. VERIFIED JUMPER<br>REMOVED 6/11.                |
| 0229 | 06/14/85            | 02-CC -TV -210C   | 018076    | INSTALL JUMPER TO KEEP VALVE Open for Type A test.  | JUMPER INSTALLED FROM CC210CC3 TO<br>CC210CX1 5/27/85. VERIFIED JUMPER<br>REMOVED 6/11/85              |
| 0229 | 06/14/85            | 02-CH -MOV -2115E | 020633    | INSTALL ALL COVER BOLTS                             | REPLACED BOLT. 6/13/85   |
| 0229 | 06/14/85            | 02-CH -MOV -2275C | 020640    | INSTALL ALL COVER BOLTS                             | BOLT BROKEN OFF, REMOVED BOLT AND<br>REPLACED.   |
| 0229 | 06/14/85            | 02-CH -MOV -2289A | 020632    | INSTALL ALL MISSING COVER                           | INSTALLED MISSING BOLTS  |
| 0229 | 06/14/85            | 02-CH -MOV -2370  | 020367    | VERIFY TORQUE SWITCH SETTING                        | COMPLETED EMP-C-MOV-143  |
| 0229 | 06/14/85            | 02-CS -MOV -200A  | 018428    | PM - ON DEMAND                                      | GEARS ON VALVE FOR MOTOR NEEDS RE-<br>PACKED WITH GREASE. CYCLED VALVE<br>SAT.                         |
| 0229 | 06/14/85            | 02-CS -MOV -201C  | 020642    | TIGHTEN MOTOR MOUNTING BOLTS                        | TIGHTENED MOTOR BOLTS  |

| DEPT | RETURNED TO SERVICE | MARK NUMBER       | WO NUMBER | WO TITLE  | HISTORY SUMMARY  |
|------|---------------------|-------------------|-----------|---|--|
| 0229 | 06/14/85            | 02-CS -MOV -203A  | 018424    | PM - ON DEMAND  | PERFORMED PM PROCEDURE CS-MOV-E/R1 THRU TO STEP 5.8, PERFORMED PM PROCEDURE EMP-C-MOV-143 THRU TO STEP 6.1. VALVE CYCLED SAT.  |
| 0229 | 06/14/85            | 02-CS -MOV -203B  | 018425    | PM - ON DEMAND  | PERFORMED PM PROCEDURES CS-MOV-E/R1 THRU STEP 5.8, PERFORMED PM PROCEDURE EMP-C-MOV-143 THRU TO STEP 6.1 VALVE CYCLED SAT.   |
| 0229 | 06/14/85            | 02-DA -TV -200B   | 020667    | VALVE WILL NOT STROKE,  | AIR NOT COMPLETELY TURNED ON, AIR WAS TURNED IN ON BY OPS & VLV CYCLED SAT. NO PROBLEM WITH VALVE NO WORK PERFORMED.   |
| 0229 | 06/14/85            | 02-LM -TV -200A   | 018070    | INSTALL JUMPER TO KEEP OPEN   | JUMPER INSTALLED FROM LM200AC3 TO LM200AX1. REMOVED JUMPER 6/11  |
| 0229 | 06/14/85            | 02-LM -TV -200B   | 018069    | INSTALL JUMPER TO KEEP OPEN<br>For Type A Test.                       | JUMPER INSTALLED FROM LM200BC3 TO LM200BX1. REMOVED JUMPER.  |
| 0229 | 06/14/85            | 02-LM -TV -200C   | 018082    | INSTALL JUMPER TO KEEP VALVE  | JUMPER INSTALLED FROM LM200CC3 TO LM200CX1. REMOVED JUMPER   |
| 0229 | 06/14/85            | 02-LM -TV -200D   | 018084    | INSTALL JUMPER TO KEEP VALVE  | JUMPER INSTALLED FROM LM200DC2 TO LM200DX1 5/27/85. REMOVED JUMPER 6/11.   |
| 0229 | 06/14/85            | 02-LM -TV -200E   | 018043    | INSTALL JUMPER TO KEEP VALVE  | JUMPER INSTALLED FROM LM200EC3 TO LM200EX1 5/27/85. REMOVED JUMPER 6/11.   |
| 0229 | 06/14/85            | 02-LM -TV -200F   | 018044    | INSTALL JUMPER TO KEEP VALVE  | JUMPER INSTALLED FROM LM200FC3 TO LM200FX1. REMOVED JUMPER 6/11  |
| 0229 | 06/14/85            | 02-LM -TV -200G   | 018045    | INSTALL JUMPER TO KEEP VALVE  | JUMPER INSTALLED FROM LM200GC3 TO LM200GX1. REMOVED JUMPER.  |
| 0229 | 06/14/85            | 02-LM -TV -200H   | 018071    | INSTALL JUMPER TO KEEP VALVE  | JUMPER INSTALLED FROM LM200HC3 TO LM200HX1. REMOVED JUMPER 6/11  |
| 0229 | 06/14/85            | 02-RC -MOV -2593  | 020509    | ADJUST/REPAIR UPPER SNAPLOCK  | REPAIRED LIMIT SWITCH BRACE. 6/11/85<br>MOV NEEDS TO BE PROPERLY MARKED<br>VALVE CYCLED SAT/RELAY 33YBV593<br>NOW OPERATING PROPERLY   |
| 0229 | 06/14/85            | 02-RC -P -1C      | 020001    | C-RCP OIL RESERVOIR HI-LO   | CLEARED HI/LO OIL ALARM  |
| 0229 | 06/14/85            | 02-RH -MOV -200   | 020416    | VERIFY TORQUE SWITCH SETTING  | VERIFIED TORQUE SWITCH SETTING<br>6/11/85  |
| 0229 | 06/14/85            | 02-RS -MOV -255A  | 020635    | TIGHTEN FLEX GOING TO THE MOV   | TIGHTENED FLEX CONNECTOR   |
| 0229 | 06/14/85            | 02-RS -MOV -255B  | 020490    | ADJUST LIMITORQUE (ELECT)   | ADJUSTED CLOSE AND OPEN LIMITS.<br>VALVE WAS IN CLOSED POSITION. MECH<br>DEPT REQUESTED THAT WE SET CLOSE<br>LIMIT AT THIS EXACT POSITION OF<br>VALVE. ADJUSTED CLOSE AND OPEN LIMIT |
| 0229 | 06/14/85            | 02-RS -MOV -255B  | 020636    | TIGHTEN FLEX GOING TO THE MOV   | REPAIRED FLEX  |
| 0229 | 06/14/85            | 02-RS -MOV -256A  | 020641    | TIGHTEN FLEX GOING TO THE MOV   | REPAIRED FLEX  |
| 0229 | 06/14/85            | 02-RS -MOV -256B  | 020634    | TIGHTEN FLEX GOING TO THE MOV   | REPAIRED FLEX  |
| 0229 | 06/14/85            | 02-SI -MOV -2860A | 020413    | VERIFY TORQUE SWITCH SETTING  | VERIFIED TORQUE SWITCH SETTING<br>6/10/85  |
| 0229 | 06/14/85            | 02-SI -MOV -2860A | 020639    | REPAIR FLEX/SHORTEN FLEX TO<br>where a trip hazard can be<br>avoided. | TIE WRAPPED FLEX   |



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|------|---------------------|-------------------|-----------|---|--|
| 0229 | 06/14/85            | 02-SI -MOV -2860B | 020414    | VERIFY TORQUE SWITCH SETTING  | VERIFIED TORQUE SWITCH SETTING   |
| 0229 | 06/14/85            | 02-SI -MOV -2860B | 020638    | TIGHTEN FLEX GOING TO THE MOV   | REPAIRED FLEX  |
| 0229 | 06/14/85            | 02-SI -MOV -2862A | 020630    | TIGHTEN FLEX GOING TO THE MOV   | REPAIRED FLEX  |
| 0229 | 06/14/85            | 02-SI -MOV -2863B | 020637    | INSTALL ALL MISSING COVER   | REPLACED BOLTS 6/13/85   |
| 0229 | 06/14/85            | 02-SI -MOV -2864B | 020629    | REPAIR FLEX IN SUCH A WAY THAT<br>Damage/Trip Hazard cannot occur.            | NO REPAIR NECESSARY.   |
| 0229 | 06/14/85            | 02-SI -MOV -2869A | 020417    | VERIFY TORQUE SWITCH SETTING  | COMPLETED AS PER EMP-C-MOV-143<br>6-10-85  |
| 0229 | 06/14/85            | 02-SI -MOV -2869B | 020422    | VERIFY TORQUE SWITCH SETTING  | COMPLETED EMP-C-MOV-143  |
| 0229 | 06/14/85            | 02-SI -MOV -2869B | 020643    | TIGHTEN COVER BOLTS   | TIGHTENED BOLTS  |
| 0229 | 06/14/85            | 02-SI -MOV -2885A | 020644    | TIGHTEN COVER BOLTS   | INSTALLED ALLEN SCREW AND 5/16 NUTS<br>TO COVER 6/12/85 & TIGHTENED COVER<br>BOLTS.  |
| 0229 | 06/14/85            | 02-SI -MOV -2885C | 020645    | TIGHTEN FLEX CONDUIT  | TIGHTENED FLEX CONNECTOR 6/12/85   |
| 0229 | 06/14/85            | 02-SI -MOV -2890A | 020646    | TIGHTEN COVER BOLTS & SUPPORT   | CHECKED BOLTS ON COVER & TIGHTENED.<br>6/12/85   |
| 0229 | 06/14/85            | 02-SI -MOV -2890B | 020647    | TIGHTEN COVER BOLTS & SUPPORT   | CHECKED ALL BOLTS ON COVER AND<br>TIGHTENED 6/12/85  |
| 0229 | 06/14/85            | 02-SI -MOV -2890C | 020649    | TIGHTEN COVER BOLTS & SUPPORT   | REPAIRED FLEX  |
| 0229 | 06/14/85            | 02-SI -RK -MISC   | 018046    | LIFT LEAD J-67 ON RELAY SIA-A<br>To detachable train A SI for<br>Type A Test. | LIFTED LEAD J-67 ON SIA-A. REMOVED<br>JUMPER AND REPLACED LEAD 6/11/85.  |
| 0229 | 06/14/85            | 02-SI -RK -MISC   | 018047    | LIFT LEAD J-67 ON RELAY SIA-B<br>To detachable train A SI for<br>Type A Test. | LIFTED LEAD J-67 ON RELAY SIA-B.<br>REMOVED JUMPER & REPLACED LEAD   |
| 0229 | 06/15/85            | 02-SI -MOV -2867C | 019001    | ELECT. DISCONNECT/RECONNECT   | VOIDING WORK PERFORMED   |
| 0229 | 06/17/85            | 02-CH -MOV -2289B | 020631    | REPAIR BROKEN FLEX  | REASSEMBLED CONNECTOR AND TIGHTENED  |
| 0229 | 06/17/85            | 02-DA -TV -200A   | 017993    | ELECT. DISCONNECT/RECONNECT   | REMOVED LIMITS FOR MECHS 5/22.<br>DANIELS WORKING ON ULV AS PER EWR<br>85-266. PROCEDURE STOPPED AT STEP<br>5.4. VALVE CYCLED SAT AFTER CON-<br>STRUCTION WORK COMPLETED. 6/16         |
| 0229 | 06/17/85            | 02-DG -TV -208A   | 018614    | DISCONNECT & RECONNECT FOR<br>Valve Repair                                    | DISCONNECTED 2-DG-TV-208A FOR MECH.<br>5/14. DANIELS WORKING ON ULV AS PER<br>EWR 85-266. PROCEDURE STOPPED AT<br>STEP 5.4/VALVE CYCLED SAT AFTER<br>CONSTRUCTIONS WORK COMPLETED 6/16 |
| 0229 | 06/17/85            | 02-EPL-BKR -24JB  | 020664    | BREAKER WILL NOT RACK INTO<br>Test Position                                   | REPAIRED RACKING WINDOW.   |
| 0229 | 06/17/85            | 02-FW -MOV -251B  | 020436    | INSTALL SCREW IN SWITCH COVER   | INSTALLED SWITCH COVER SCREW   |
| 0229 | 06/17/85            | 02-RC -P -1B      | 018276    | PM - ON DEMAND  | PERFORMED PMS ON MOTOR. ACTUAL<br>DISCONNECT AND RECONNECT PERFORMED<br>ON WO 3800013224 6/15/85.  |
| 0229 | 06/17/85            | 02-SI -HCV -2853B | 009995    | VALVE LEAKS BY, SUSPECT SOLE-<br>noid air valve leaking by                    | SOV LOOK GOOD, SUBMITTED WORK ORDER<br>TO MECHS. TO CHECK DIAPHRAGM.<br>SOV OPERATED SAT.  |
| 0229 | 06/18/85            | 02-CS -TSW -200A  | 019138    | TEST SWITCH RELAY BURNT OUT.  | RELAY WESTINGHOUSE BF 44F RLM 200<br>A2 TEST RELAY AND PROVED SATISFACTO<br>RY FOR INST 6/18/85  |
| 0229 | 06/18/85            | 02-HS -HRV -201A  | 012692    | REPLACE FEEDER BREAKER FROM<br>125 to 175 amp.                                | REPLACED BREAKER WITH A 176 AMP<br>Breaker 6/8   |

| DEPT | RETURNED TO SERVICE | MARK NUMBER       | WO NUMBER | WO TITLE                                      | HISTORY SUMMARY  |
|------|---------------------|-------------------|-----------|---|--|
| 0229 | 06/18/85            | 02-MS -NRV -201B  | 012693    | REPLACE FEEDER BREAKER FROM 125 to 175 amps.  | REPLACED BREAKER WITH A NEW 175A BREAKER 6/6. CYCLED VALVE & TESTED BREAKER SAT. 6/16  |
| 0229 | 06/18/85            | 02-MS -NRV -201C  | 012694    | REPLACE FEEDER BREAKER FROM 125 to 175 amps   | DISCONNECTED MOTOR & LIMITS. 3/25 REPLACED BREAKER 6/9. CYCLED VALVE SAT 6/15.   |
| 0229 | 06/18/85            | 02-MS -MOV -255A  | 020781    | ASSIST MOVATS IN TESTING OF the valve         | ASSISTED MOVATS PERSONNEL IN TESTING OF MOV. VALVE TESTED SAT 6/18/85  |
| 0229 | 06/20/85            | 02-CH -FCV -2113A | 020357    | REPLACE SOV 2-CH-FCV-2113A1                   | REPLACED SOV 6/13/85 TESTED OUT SAME PROBLEM STILL EXSISTED. REPLACED SOV INST TECHS FOUND PROBLEM IN WIRING CIRCUITRY. VALVE CYCLED SAT 6/16/85                             |
| 0229 | 06/20/85            | 02-CH -HCV -2389  | 020829    | REPAIR OR REPLACE SOV                         | SOV WAS BLOWING BY REPLACED SOV CYCLED VALVE AND CHECKED LIGHT INDICATION OPERATION SAT 6/17/85 SOLENOID VALVE 0760917   |
| 0229 | 06/20/85            | 02-CH -MOV -2289B | 020461    | DISCONNECT AND RECONNECT                      | DISCONNECTED MOV-CH-2289B 6-5-85 NEED 8-32 SCREW AND NUTS FOR MOTOR LEADS NEED 1 5/16" NUT FOR MOV-COVER. INSTALLED NEW LIMIT SWITCH ASSEMBLY AND RECONNECTED FIELD LEAD     |
| 0229 | 06/20/85            | 02-CS -MOV -203D  | 018427    | PM - ON DEMAND                                | PERFORMED PROCEDURE PM-CS-MOV-E/R1 THRU STEP 5.5 FOUND CONTROL CIRCUIT GROUNDED THRU WIRE CS 203DSC0 GROUND CLEARED PERFORMED PROCEDURE THRU 6.1. WO SUBMITTED REPAIR T LEAD |
| 0229 | 06/20/85            | 02-EP -ST -2H     | 020840    | OBTAIN 4160/480 XFMR TAP SETTINGS and record. | TOOK PICTURE OF THE TAP SETTINGS ON THE 2H 4160/480 V XFMR 6/17/85 TAPS SET ON 3 AND 4 WHICH IS FOR 4056V  |
| 0229 | 06/20/85            | 02-EP -ST -2H1    | 020839    | OBTAIN 4160/480 XFMR TAP SET-                 | OBTAINED TAP SETTINGS ON THE 2H1 4160/480 XFMR. TAP SET ON 1 WHICH IS FOR 4160V  |
| 0229 | 06/20/85            | 02-EP -ST -2J     | 020838    | OBTAIN 4160/480 XFMR TAP SET-                 | OBTAINED TAP SETTINGS ON THE 2J 4160/480 XFMR 6/17/85 TAPS ARE SET ON 3 AND 4 WHICH IS FOR 4056 VOLTS  |
| 0229 | 06/20/85            | 02-EP -ST -2J1    | 020837    | OBTAIN 4160/480 XFMR TAP SET-                 | OBTAINED TAP SETTINGS ON THE 2J1 4160/480 XFMR 6/17/85 TAP IS SET ON 1 WHICH IS FOR 4160V  |
| 0229 | 06/20/85            | 02-FW -MOV -251B  | 002140    | EXCESSIVE STROKE TIME                         | DISASSEMBLE VALVE AND INSPECT PARTS  |
| 0229 | 06/20/85            | 02-MS -NRV -201C  | 010867    | DISCONNECT/RECONNECT MOV AND hook-up temp.    | DISCONNECTED MOTOR AND LIMITS 3/25/85. CONNECTED TEMP FEED AND INSTALLED JUMPERS SO VALVE CAN BE OPERATED ELECTRICALLY AT VALVE. RECONNECTED MOV-CLEARED JUMPER LOGS 4-4-85  |
| 0229 | 06/20/85            | 02-RC -HCV -2557A | 020778    | VALVE INDICATES INTERMEDIATE position         | ADJUSTED SNAP SWITCH EVERYTHING SAT  |



| DEPT | RETURNED TO SERVICE | MARK NUMBER       | WO NUMBER | WO TITLE                                  | HISTORY SUMMARY   |
|------|---------------------|-------------------|-----------|---|---|
| 0229 | 06/20/85            | 02-RC -P -1B      | 013224    | DISCONNECT & RECONNECT                    | MOTOR LEADS/AUXILIARIES DISCONNECTED. BENTLY NAVADA REMOVED 3/27/85. EVERYTHING ELECTRICALLY DISCONNECTED. MOTOR LIFTED TO OPERATING DECK 3/28/85. MOTOR BACK ON PUMP 4/6/85  |
| 0229 | 06/20/85            | 02-RPI-ROD -H-12  | 020782    | INVESTIGATE MISALIGNMENT OF control rods. | FOUND PLUGS M-12/K-12 SWAPPED. RETURNED PLUGS TO ORIGINAL POSITION AND CHECKED READINGS SAT   |
| 0229 | 06/20/85            | 02-RS -MOV -255A  | 019626    | DISCONNECT/RECONNECT FOR MECH.            | DISCONNECTED FOR MECHS 5/16/85. RECONNECTED TESTED 6/2/85. DISCONNECTED LIMITS AND MOTOR LEADS 6-5-85. RECONNECTED MOTOR LEADS AND ADJUSTED LIMITS CYCLED VALVE. OPERATED SAT |
| 0229 | 06/20/85            | 02-RS -MOV -255A  | 020752    | CHECK LIMITS AND ADJUST AS necessary      | ADJUSTED LIMIT SWITCH IN OPEN AND CLOSED POSITION. VALVE CYCLED SAT   |
| 0229 | 06/20/85            | 02-RS -MOV -255B  | 020755    | ADJUST ELECTRICAL LIMITS                  | ADJUSTED OPEN LIMIT AS PER EMP-C-MOV-63 SAT CH 6-16-85  |
| 0229 | 06/20/85            | 02-RS -MOV -255B  | 020780    | ASSIST MOVATS IN THE TESTING              | ASSISTED MOVATS PERSONNEL IN TESTING OF VALVE. VALVE OPERATED SAT 6/18/85   |
| 0229 | 06/20/85            | 02-SI -MOV -2869A | 020628    | REPAIR FLEX CONDUIT                       | NEED FLEX 1/2 DIA 24" LONG WILL REQUIRE DISCONNECTING 6-13-85. INSTALL NEW FLEX TO MOV. FLEX FOR RIS ALARM  |
| 0229 | 06/20/85            | 02-SI -MOV -2869B | 018267    | CHECK TORQUE SWITCH                       | COULD NOT BACK VALVE OFF OF SEAT TO CHECK TORQUE SWITCH SETTING. WORK BEING PERFORMED ON PIPING 4/15/85. REPLACED TORQUE SWITCH 6/19/85. SWITCH 0385193 3430740 LUGS          |
| 0229 | 06/20/85            | 02-SI -P -1B      | 017597    | ELECTRICALLY DISCONNECT/RECONNECT.        | DISCONNECTED MOTOR 3/28/85. RECONNECTED MOTOR 5/26/85. UNCOUPLE RUN ON MOTOR CHECKED AMPS A-90 AMPS B-94 AMPS C 96 AMPS UPPER BEARING BAD NOISY DISCONNECTED MTR AND HTRS     |
| 0229 | 06/20/85            | 02-SI -TV -201A   | 017927    | ELECT. DISCONNECT/RECONNECT               | LIMITS DISCONNECTED MISSING 1/2" BOLT BY 1 INCH AND 1/2" LOCKWU T. BOLT HOLES MARKED ON PLATE FOR REMOUNTING. CONSTRUCTION PERFORMED EWR-266 AND ACTUALLY MOUNTED LIMITS      |
| 0229 | 06/20/85            | 02-SW -MOV -205D  | 008360    | ELECT. DISCONNECT/RECONNECT               | DISCONNECTED MOV  |
| 0229 | 06/20/85            | 02-VS -F -60D     | 020728    | FAN VERY NOISY, VIBRATING                 | DISCONNECTED MOTOR LEADS, THERMOCOUPLE. RECONNECTED MOTOR AND THERMOCOUPLE.   |
| 0229 | 06/21/85            | 02-CH - -40       | 018791    | REPLACE DIAPHRAGM ON 2" GRINEL            | REMOVED BONNET ASSEMBLY. REPLACED DIAPHRAGM, O-RING, RE-INSTALLED. ADJUSTED AS PER MAINTENANCE PROCEDURE.   |
| 0229 | 06/21/85            | 02-CH - -41       | 018790    | REPLACE DIAPHRAGM FOR 2"                  | REMOVED & REPLACED WITH NEW BONNET  |
| 0229 | 06/21/85            | 02-CS -MOV -203D  | 020779    | REPAIR MOTOR LEADS AT THE MCC             | REPLACED LUG ON MOTOR LEAD STROKED VALVE EVERYTHING SATISFACTORY.   |
| 0229 | 06/21/85            | 02-MS -PCV -201B  | 020020    | VALVE DID NOT INDICATE OPEN               | ADJUSTED LIMIT SWITCHES AS PER PROCEDURE EMP-C-SOV-38   |
| 0229 | 06/22/85            | 02-CW -MOV -200C  | 020996    | BREAKER THERMALS WHEN VALVE IS operated.  | MOTOR GROUNDED BRIDGE READING ALL Different. Found Motor to be full of water and have small hole. replace motor.  |

| DEPT | RETURNED TO SERVICE | MARK NUMBER       | WO NUMBER | WO TITLE  | HISTORY SUMMARY   |
|------|---------------------|-------------------|-----------|---|---|
| 0229 | 06/23/85            | 02-MS -SOV -202B  | 020543    | SOV CONTROL ISOLATION SWITCH<br>Fails to transfer to aux shut-down panel. | REPLACED DC COIL. SWITCH/VALVE<br>TESTED SAT AS PER PT 18.13.                 |
| 0229 | 06/24/85            | 02-CH -LCV -2115C | 020977    | VALVE WILL NOT GO FULL CLOSED.  | REPLACED TORQUE SWITCH CYCLE OK   |
| 0229 | 06/24/85            | 02-CS -MOV -201B  | 020862    | LIMIT SWITCHES FOR VALVE  | SET CLOSE LIMITS CHECKED 6-20-85<br>VALVE CYCLED SAT                          |
| 0229 | 06/24/85            | 02-CS -MOV -201C  | 020954    | ADJUST LIMITS ON MOV  | NO ADJUSTMENT NEEDED CYCLED SAT   |
| 0229 | 06/24/85            | 02-CS -MOV -201D  | 020861    | LIMIT SWITCHES FOR VALVE  | SET CLOSED LIMIT CHECKED 6-21-85<br>VALVE CYCLED SAT                          |
| 0229 | 06/24/85            | 02-EPH-BKR -25A3  | 013680    | PERFORM PROTECTIVE RELAY MAINT.   | CURRENT CIRCUIT MEGGERED, RELAYS TESTED, REPLACED FUSES                       |
| 0229 | 06/24/85            | 02-EPH-BKR -25B1  | 013550    | PERFORM PROTECTIVE RELAY MAINT.   | MEGGERED, TESTED RELAYS CHANGED FUSES   |
| 0229 | 06/24/85            | 02-EPH-REL -LSR3A | 012841    | REPLACE HFA RELAY LSR1-3A2  | REPLACED HFA RELAY WITH NEW.  |
| 0229 | 06/24/85            | 02-EPH-REL -LSR3B | 012840    | REPLACE HFA RELAY LSR1-3B2  | REPLACED HFA RELAY WITH PD.SY-10370   |
| 0229 | 06/24/85            | 02-EPH-REL -LSR3C | 012837    | REPLACE HFA RELAY LSR1-3C2  | REPLACED HFA RELAY  |
| 0229 | 06/24/85            | 02-EPH-REL -LSR3D | 012835    | REPLACE HFA RELAY LSR1-3D   | REPLACED HFA RELAY WITH PD.SY-12140   |
| 0229 | 06/24/85            | 02-EPH-REL -LSR3E | 012836    | REPLACE HFA RELAY LSR1-3E   | REPLACED HFA RELAYS   |
| 0229 | 06/24/85            | 02-EPH-REL -2AUV  | 004008    | REPLACE PLC CARD, AS PER MANUF  | REPLACED PLC CARD, REPLACED NAMEPLATE, SET RELAY                              |
| 0229 | 06/24/85            | 02-EPH-REL -2CUV  | 004183    | REPLACE PLC CARD AS PER MANUF.  | REPLACED PLC CARD. ALSO REPLACED NAMEPLATE.                                   |
| 0229 | 06/24/85            | 02-EPH-REL -27X1C | 012847    | REPLACE HFA RELAY 27X1-2C   | REPLACED 27X1-2C HFA RELAY.   |
| 0229 | 06/24/85            | 02-FW -MOV -251E  | 020984    | ADJUST TORQUE SWITCH SETTING  | ADJUSTED TORQUE SWITCH SETTING TO 2<br>CLOSE OPS VERIFIED NO LEAKAGE BY SEAT  |
| 0229 | 06/25/85            | 02-BE -DR -HATCH  | 021038    | DISCONNECT POWER PACK MOTOR.  | DISCONNECT OLD INTR. INSTALL NEW ONE<br>COMPLETED EMP-C-EPL-12                |
| 0229 | 06/25/85            | 02-EG -REL -EG2   | 013685    | PERFORM PROTECTIVE RELAY MAINT<br>Procedure                               | MEGGERED, TESTED RELAYS OPERATIONAL<br>CHECKED, CHANGED FUSES.                |
| 0229 | 06/25/85            | 02-EPC-ROD -B8    | 021196    | PLUG DAMAGED  | REPAIRED PLUG FOR CRDM B-B AT LIFT<br>COIL 2.26R                              |
| 0229 | 06/25/85            | 02-EPH-BKR -25B3  | 013681    | PERFORM PROTECTIVE RELAY MAINT<br>Procedure                               | CURRENT CIRCUIT MEGGERED, RELAY TESTED, REPLACED FUSES                        |
| 0229 | 06/25/85            | 02-EPH-BKR -25C3  | 013679    | PERFORM PROTECTIVE RELAY MAINT<br>Procedure                               | CURRENT CIRCUIT MEGGERED RELAYS TESTED REPLACED FUSES                         |
| 0229 | 06/25/85            | 02-EPH-BKR -25H3  | 013682    | PERFORM PROTECTIVE RELAY MAINT<br>Procedure                               | MEGGERED, TESTED RELAYS, CHANGED FUSES AS PER DC 84-86, OPERATIONAL CHECKED   |
| 0229 | 06/25/85            | 02-EPH-BKR -25H9  | 013580    | PERFORM PROTECTIVE RELAY MAINT<br>Procedure                               | MEGGERED, TESTED RELAYS REPLACED 86-25H9 AS PER DC-84-86, OPERATIONAL CHECKED |

| DEPT | RETURNED TO SERVICE | MARK NUMBER       | WO NUMBER | WO TITLE                                    | HISTORY SUMMARY  |
|------|---------------------|-------------------|-----------|---|--|
| 0229 | 06/25/85            | 02-EPH-BKR -25J10 | 013587    | PERFORM PROTECTIVE RELAY MAINT<br>Procedure | CURRENT CIRCUIT MEGGERED, RELAYS TEST, FUSES WERE CHANGED UNDER DCP-84-86, OPERATIONAL CHECK                                     |
| 0229 | 06/25/85            | 02-EPH-BKR -25J3  | 013683    | PERFORM PROTECTIVE RELAY MAINT              | MEGGERED, TESTED RELAYS, OPERATIONAL CHECKED CHANGED FUSES AS PER DC84-86  |
| 0229 | 06/25/85            | 02-EPH-REL -25H8  | 012914    | REPLACE HFA RELAY 86-25H8                   | INSTALLED RELAY IN CIRCUIT 25H8  |
| 0229 | 06/25/85            | 02-EPH-REL -25H9  | 012915    | REPLACE HFA RELAY 86-25H9                   | REPLACED HFA RELAY, OPERATIONAL CHECKED  |
| 0229 | 06/25/85            | 02-EPH-REL -25J10 | 012905    | REPLACE HFA RELAY 86-25J10                  | REPLACED 86-25J10, P.O. NO-SY-10371, OPERATIONAL CHECK   |
| 0229 | 06/25/85            | 02-EPH-REL -25J3  | 012897    | REPLACE HFA RELAY 86-25J3                   | REPLACED 86-25J3 P.O. NO S410370   |
| 0229 | 06/25/85            | 02-EPH-REL -27X1B | 012848    | REPLACE HFA RELAY 27X1-2B                   | REPLACED HFA RELAY 27X12B  |
| 0229 | 06/25/85            | 02-HS -REL -2485  | 021186    | COILS/RELAYS PC 2485AXA AND 485BAXA RELAY.  | CHANGED OUT RELAY PC2485AXA AND PC2485BAXA RELAY.  |
| 0229 | 06/25/85            | 02-RC -BKR -4/4   | 004329    | EMR 84-256, REPLACE BREAKER                 | INSTALLED BREAKER. BREAKER TESTED SAT  |
| 0229 | 06/25/85            | 02-RC -P -1C      | 013223    | DISCONNECT AND RECONNECT                    | DISCONNECTED MOTOR LEADS/RTD/BEARING LIFT AND MOVE MOTOR TO OPERATING DECK. TEST RAN MOTOR SAT INSTALLED OIL COLLECTION ON MOTOR |
| 0229 | 06/25/85            | 02-RPI-ROD -H-12  | 021191    | WILL NOT MOVE                               | FOUND PLUG PRONGS LOOSE AND NOT MAKING UP EVERYTHING WAS PUT BACK TOGETHER AND SHOWED GOOD READINGS ON COIL. REPAIRED PLUG       |
| 0229 | 06/26/85            | 02-CC -TV -210A   | 020565    | ADJUST LIMIT SWITCHES                       | ADJUSTED LIMIT SWITCHES  |
| 0229 | 06/26/85            | 02-CV -P -1B      | 021047    | DISCONNECT AND RECONNECT                    | PULLEY INSTALLED   |
| 0229 | 06/26/85            | 02-CW -MOV -206B  | 021001    | VALVE WILL NOT STAY OPEN                    | COMPLETED PROCEDURE EMP-C-MOV-18 CHECK STEP 5.20 TO SEE WHAT PROBLEM WE FOUND. VALVE CYCLED SAT                                  |
| 0229 | 06/26/85            | 02-EPH-BKR -25H1  | 013691    | PERFORM PROTECTIVE RELAY MAINT<br>procedure | MEGGERED, TESTED RELAYS, CHANGE FUSES AS PER DC 84-86  |
| 0229 | 06/26/85            | 02-EPH-BKR -25H11 | 013582    | PERFORM PROTECTIVE RELAY MAINT<br>Procedure | MEGGERED, TESTED RELAYS, REPLACED FUSE AS PER DC 84-86   |
| 0229 | 06/26/85            | 02-EPH-BKR -25H5  | 013590    | PERFORM PROTECTIVE RELAY MAINT<br>Procedure | TESTED RELAYS, MEGGERED CHANGED CONTROL FUSES AS PER DC-84-86 OPERATIONAL CHECKED  |
| 0229 | 06/26/85            | 02-EPH-BKR -25H6  | 013591    | PERFORM PROTECTIVE RELAY MAINT<br>Procedure | MEGGERED AND TESTED RELAYS OPERATIONAL CHECKED CHANGED FUSES AS PER DC 84-86   |
| 0229 | 06/26/85            | 02-EPH-BKR -25H7  | 013579    | PERFORM PROTECTIVE RELAY MAINT<br>Procedure | MEGGERED, RELAYS TESTED, CIRCUIT OPERATIONAL TESTED CHANGED FUSES AS PER 84-86 DESIGN CHANGE                                     |
| 0229 | 06/26/85            | 02-EPH-BKR -25H8  | 013586    | PERFORM PROTECTIVE RELAY MAINT<br>Procedure | MEGGERED, TESTED RELAYS OPERATIONAL CHECKED OK CHANGED FUSED TO 15AMP OT AS PER DC 84-86   |
| 0229 | 06/26/85            | 02-EPH-BKR -25J11 | 013583    | PERFORM PROTECTIVE RELAY MAINT<br>Procedure | MEGGERED TESTED RELAY OPERATIONAL CHECKED REPLACED TRIP AND CLOSE FUSES AS PER DC 84-86  |

| DEPT | RETURNED TO SERVICE | MARK NUMBER       | WO NUMBER | WO TITLE                                    | HISTORY SUMMARY   |
|------|---------------------|-------------------|-----------|---|---|
| 0229 | 06/26/85            | 02-EPH-BKR -25J2  | 013690    | PERFORM PROTECTIVE RELAY MAINT<br>Procedure | MEGGERED, TESTED RELAYS, REPLACE FUSES AS PER DEVIATION, REPLACED HFA AS PER TEMP-C-4-131, OPERATIONAL CHECKED, VERIFIED ALARMS TO CONTROL ROOM |
| 0229 | 06/26/85            | 02-EPH-BKR -25J4  | 013589    | PERFORM PROTECTIVE RELAY MAINT<br>Procedure | MEGGERED TESTED RELAYS CHANGED FUSES UNDER DC 84-86 OPERATIONAL CHECKED   |
| 0229 | 06/26/85            | 02-EPH-BKR -25J5  | 013684    | PERFORM PROTECTIVE RELAY MAINT<br>Procedure | MEGGERED RELAYS TESTED, CHANGED FUSES AS PER DC 84-86 OPERATIONAL CHECKED   |
| 0229 | 06/26/85            | 02-EPH-BKR -25J7  | 013588    | PERFORM PROTECTIVE RELAY MAINT<br>Procedure | MEGGERED RELAYS TESTED FUSES CHANGED, OPERATIONAL CHECKED   |
| 0229 | 06/26/85            | 02-EPH-BKR -25J8  | 013689    | PERFORM PROTECTIVE RELAY MAINT<br>Procedure | RELAYS TESTED, CURRENT CIRCUIT MEGGERED, CIRCUIT OPERATIONAL TESTED, REPLACED TRIP AND CLOSE FUSES AS PER DC-84-86                              |
| 0229 | 06/26/85            | 02-EPH-BKR -25J9  | 013581    | PERFORM PROTECTIVE RELAY MAINT<br>Procedure | RELAYS TESTED, CURRENT CIRCUIT MEGGERED CIRCUIT OPERATIONAL TESTED REPLACED TRIP AND CLOSE FUSES AS PER DC 84-86                                |
| 0229 | 06/26/85            | 02-EPH-REL -UV2H  | 013692    | PERFORM PROTECTIVE RELAY MAINT<br>Procedure | RELAY MAINTENANCE PERFORMED, FUSES REPLACED, CIRCUIT OPERATIONAL CHECKED  |
| 0229 | 06/26/85            | 02-EPH-REL -UV2J  | 013693    | PERFORM PROTECTIVE RELAY MAINT<br>Procedure | RELAY MAINTENANCE PERFORMED AND RELAY WHERE THEY VERIFIED TO HAVE SETTINGS WITH THEIR RESPECTIVE TOLERANCES.                                    |
| 0229 | 06/26/85            | 02-EPH-REL -2HUV  | 004011    | REPLACE PLC CARD, AS PER MANUF.             | INSPECTED NEW PLC CARD AND VERIFIED NO PHYSICAL DAMAGE.   |
| 0229 | 06/26/85            | 02-EPH-REL -2JUV  | 004012    | REPLACE PLC CARD, AS PER MANUF.             | PERFORMED RELAY MAINTENANCE, PERFORMED RECALIBRATION, PERFORMED OPERATIONAL CHECKED   |
| 0229 | 06/26/85            | 02-EPH-REL -25H10 | 012916    | REPLACE HFA RELAY 86-25H10                  | REPLACED 86-25H10, OPERATIONAL CHECKED  |
| 0229 | 06/26/85            | 02-EPH-REL -25H11 | 012917    | REPLACE HFA RELAY 86-25H11                  | REPLACED HFA RELAY  |
| 0229 | 06/26/85            | 02-EPH-REL -25H3  | 012909    | REPLACE HFA RELAY 86-25H3                   | REPLACED HFA RELAY OPERATIONAL CHECKS   |
| 0229 | 06/26/85            | 02-EPH-REL -25H4  | 012910    | REPLACE HFA RELAY 86-25H4                   | REPLACED HFA RELAY OPERATIONAL CHECKED AS PER 2-EMP-P-RT-62   |
| 0229 | 06/26/85            | 02-EPH-REL -25H5  | 012911    | REPLACE HFA RELAY 86-25H5                   | REPLACE 86-25H5 AND OPERATIONAL CHECKED   |
| 0229 | 06/26/85            | 02-EPH-REL -25H6  | 012912    | REPLACE HFA RELAY 86-25H6                   | REPLACED 86-25H6, OPERATIONAL CHECKED   |
| 0229 | 06/26/85            | 02-EPH-REL -25H7  | 012913    | REPLACE HFA RELAY 86-25H7                   | REPLACED HFA RELAY OPERATIONAL CHECKED AS PER 2-EMP-P-RT-56   |
| 0229 | 06/26/85            | 02-EPH-REL -25J11 | 012906    | REPLACE HFA RELAY 86-25J11                  | REPLACED HFA RELAY, OPERATIONAL CHECKED.  |
| 0229 | 06/26/85            | 02-EPH-REL -25J2  | 012896    | REPLACE HFA RELAY 86-25J2                   | INSPECTED NEW HFA FOR NO PHYSICAL DAMAGE, OHMED COIL, REPLACED OLD HFA WITH NEW ONE   |

| DEPT | RETURNED TO SERVICE | MARK NUMBER       | WO NUMBER | WO TITLE                     | HISTORY SUMMARY   |
|------|---------------------|-------------------|-----------|------------------------------|---|
| 0229 | 06/26/85            | 02-EPH-REL -25J4  | 012898    | REPLACE HFA RELAY 86-25J4    | REPLACED HFA RELAY  |
| 0229 | 06/26/85            | 02-EPH-REL -25J5  | 012899    | REPLACE HFA RELAY 86-25J5    | REPLACED 86-25J5 AND OPERATIONAL CHECKED  |
| 0229 | 06/26/85            | 02-EPH-REL -25J7  | 012902    | REPLACE HFA RELAY 86-25J7    | REPLACED HFA RELAY AND OPERATIONAL CHECKED AS PER 2-EMP-P-RT-65                                       |
| 0229 | 06/26/85            | 02-EPH-REL -25J8  | 012903    | REPLACE HFA RELAY 86-25J8    | REPLACED HFA RELAY OPERATIONAL CHECKED AS PER EMP-P-RT-80A  |
| 0229 | 06/26/85            | 02-EPH-REL -25J9  | 012904    | REPLACE HFA RELAY 86-25J9    | REPLACED HFA RELAY OPERATIONAL CHECKED AS PER 2-EMP-P-RT-58   |
| 0229 | 06/26/85            | 02-EPH-REL -27X1A | 012850    | REPLACE HFA RELAY 27X1-2A    | REPLACED HFA RELAY  |
| 0229 | 06/26/85            | 02-EPH-REL -27X1H | 012854    | REPLACE HFA RELAY 27X1-2H1   | REPLACED HFA RELAY  |
| 0229 | 06/26/85            | 02-EPH-REL -27X1J | 012855    | REPLACE HFA RELAY 27X1-2J1   | REPLACED HFA-27X1-2J1   |
| 0229 | 06/26/85            | 02-EPH-REL -27X2H | 012853    | REPLACE HFA RELAY 27X2-2H1   | REPLACED HFA RELAY  |
| 0229 | 06/26/85            | 02-EPH-REL -27X2J | 012856    | REPLACE HFA RELAY 27X2-2J1   | REPLACED 27X2-2J1HFA  |
| 0229 | 06/26/85            | 02-EPH-REL -27X3H | 012852    | REPLACE HFA RELAY 27X3-2H1   | REPLACED HFA RELAY  |
| 0229 | 06/26/85            | 02-EPH-REL -27X3J | 012857    | REPLACE HFA RELAY 27X3-2J1   | REPLACED HFA 27X3-2J1   |
| 0229 | 06/26/85            | 02-FW -MOV -251A  | 020983    | ADJUST TORQUE SWITCH SETTING | VALVE CYCLED SAT AS PER OPERATIONS/ NO ADJUSTMENTS WERE NECESSARY                                     |
| 0229 | 06/26/85            | 02-FW -MOV -251F  | 020985    | ADJUST TORQUE SWITCH SETTING | VALVE CYCLED SAT AS PER OPERATIONS/ NO ADJUSTMENTS NECESSARY  |
| 0229 | 06/26/85            | 02-RC -P -1A      | 013225    | DISCONNECT AND RECONNECT     | PUMP MOTOR COUPLED  |
| 0229 | 06/26/85            | 02-RC -P -1C      | 010398    | THE VIBRATION METER ON THE   | READJUSTED, VIBRATIONS SAT.   |
| 0229 | 06/26/85            | 02-RC -REL -RT5XB | 021233    | RELAY IS BAD.                | REPLACED COIL IN RELY AND TESTED SAT  |
| 0229 | 06/26/85            | 02-RC -REL -RT6YB | 021232    | RELAY RT6YB IS BAD.          | REPLACED COIL IN RELAY AND TESTED SAT   |
| 0229 | 06/27/85            | 02-IA -TV -200    | 021058    | VALVE WON'T STAY OPEN,       | FOUND PROBLEM TO BE IN PS-IA-209A/B AIR WAS ISOLATED THE SWITCHES AIR WAS VALVED IN AND OPERATED SAT. |
| 0229 | 06/27/85            | 02-RP -BKR -B/BPS | 012719    | INSPECT & REPAIR BREAKER     | COIL REPLACED ON EMERGENCY WORK ORDER 3800020569  |
| 0229 | 06/27/85            | 02-RP -BKR -BNORM | 019688    | PM - ON DEMAND               | PERFORMED PROCEDURE PC-DB-E/A1 SAT 6/27/85 BREAKER TESTED SAT AS PER PT 8.1 6/27/85                   |



VEPCO SAFETY RELATED DURING REDUCED POWER SORTED BY UNIT AND DEPARTMENT  
FROM 06/01/85 THRU 06/30/85  
UNIT 02 SURRY

| DEPT | RETURNED TO<br>SERVICE | MARK NUMBER       | WO<br>NUMBER | WO TITLE                 | HISTORY SUMMARY  |
|------|------------------------|-------------------|--------------|--------------------------|--|
| 0229 | 06/27/85               | 02-RS -MOV -256B  | 021245       | DISCONNECT AND RECONNECT | FURMANITE ABLE TO REPAIR VALVE WITH<br>OUT ELECT. DISCONNECT BRIDGE T2 TO<br>EARTH. 500 MRT CNTL CKT 100 MRT.  |
| 0229 | 06/28/85               | 02-CH -MOV -2350  | 018337       | DISCONNECT & RECONNECT   | DISCONNECTED MOV 2350 5/22/85<br>RECONNECTED 6/12/85 REPLACED<br>LIMIT SWITCH CONTACTOR BLOCK OLD<br>ONE BROKEN MOTOR RUNS BUT VALVE<br>WILL NOT MOVE UNLESS CLUTCH HELD |
| 0229 | 06/28/85               | 02-MS -REL -SDX1  | 021302       | RELAY STICKS, REPLACE.   | REPLACED COIL FOR SDX1   |
| 0229 | 06/28/85               | 02-RF -BKR -BNORM | 019718       | REPLACE UVT COIL         | USED NEW UVT STOCK NO 3430640<br>REPLACED UVT COIL IN BREAKER AND<br>TESTED SAT 6/27/85 BREAKER PMS<br>PERFORMED 3800019688<br>UVT 0344141 LUGS 3430640                  |

MAINTENANCE OF SAFETY RELATED SYSTEMS DURING  
OUTAGE OR REDUCED POWER PERIODS

UNIT NO. 1

INSTRUMENT MAINTENANCE

NONE DURING THIS PERIOD.



VEPCO SAFETY RELATED DURING REDUCED POWER SORTED BY UNIT AND DEPARTMENT  
 FROM 06/01/85 THRU 06/30/85  
 UNIT 02 SURRY

| DEPT | RETURNED TO<br>SERVICE | MARK NUMBER       | WO<br>NUMBER | WO TITLE  | HISTORY SUMMARY   |
|------|------------------------|-------------------|--------------|---|---|
| 0237 | 06/04/85               | 02-RC -MISC-RVLIS | 019748       | REPLACE FILL VALVE IN 'A'<br>Train Line.          | REPLACED FILL VALVE & SEAL WELDED<br>CAPS.  |
| 0237 | 06/05/85               | 02-CC -FI -210A   | 020081       | METER SHOWS 6500GPM FLOW WITH<br>No Flow thru Hx. | FOUND WATER TRAPPED IN HIGH SIDE,<br>OPEN EQUALIZER VALVE & EQUALIZED<br>TRANSMITTER. OP SAT.   |
| 0237 | 06/05/85               | 02-FW -FI -200C   | 012023       | PERFORM REFUELING CALIBRATION                     | PERFORMED CAL-62 ADJUSTED TRANSMITT<br>ER TO SPECS. REPLACED ORINGS AND TE<br>RMINAL SCREWS ON TRANSMITTER                              |
| 0237 | 06/05/85               | 02-RC -LI -2459   | 011717       | PERFORM REFUELING CALIBRATION                     | COMPLETED REFUELING CALIBRATION.<br>SAT. ADJUSTED TM-2-459 & LT-2-459.<br>PT SENT TO ENGINEERING.                                       |
| 0237 | 06/05/85               | 02-RC -LI -2461   | 011719       | PERFORM REFUELING CALIBRATION                     | COMPLETED RACKWORK CALIBRATION.<br>ADJUSTED LM-2-461. ADJUSTED TRANS-<br>MITTER TO A SAT OUTPUT THUS COMPLE-<br>TING REFUELING CAL SAT. |
| 0237 | 06/05/85               | 02-SI -FI -2961   | 011818       | PERFORM REFUELING CALIBRATION                     | PERFORMED REFUELING CALIBRATION<br>MINOR ADJUSTMENTS ON TRANSMITTER   |
| 0237 | 06/05/85               | 02-SI -FI -2963   | 011820       | PERFORM REFUELING CALIBRATION                     | REFUELING CALIBRATION PERFORMED.<br>MINOR ADJUSTMENTS ON TRANSMITTER<br>ZERO AND SPAN   |

| DEPT | RETURNED TO SERVICE | MARK NUMBER       | WO NUMBER | WO TITLE   | HISTORY SUMMARY  |
|------|---------------------|-------------------|-----------|--|--|
|      |                     |                   |           |  | MITTER RANGE   |
| 0237 | 06/06/85            | 02-MS -SV -202C   | 017237    | REMOVE VALVE REINSTALL VALVE                         | VOID WORK NOT REQUIRED MS HYDRO NOT TO BE PERFORMED  |
| 0237 | 06/06/85            | 02-RC -FI -2155A  | 020479    | NO INDICATION  | CHECKED TRANSMITTER OUTPUT READING ZERO VOLTS, FOUND BROKEN LEAD IN JUNCTION BOX IN CONTAINMENT REPAIRED SAME                                  |
| 0237 | 06/06/85            | 02-RI -RMS -262   | 020397    | SPIKING CAUSES HIGH ALARM                            | VOID WORK PERFORMED ON W.O. 3800019521   |
| 0237 | 06/07/85            | 02-FW -LI -2475   | 020284    | INDICATES 40% LOWER                                  | FILLED REF. LEG VENTED AIR FROM HIGH SIDE INDICATION GOOD  |
| 0237 | 06/07/85            | 02-FW -LI -477    | 020232    | LEVEL INDICATION SHOWED A Gradual Increase in level. | CHECKED VALVE LINEUP MONITORED LEVEL INDICATIONS FOUND NO PROBLEM  |
| 0237 | 06/07/85            | 02-RC -LT -2460   | 011718    | PERFORM REFUELING CALIBRATION                        | COMPLETED REFUELING CAL. SAT, ADJUSTED XMTZ ZERO AND SPAN PT SENT TO ENGINEERING   |
| 0237 | 06/07/85            | 02-RI -ANN -D-A-3 | 017047    | HI ALARM LOCKED IN VERIFIED                          | VERIFIED HIGH AND LOW TEMPERATURE ALARMS CHECKED SAT   |
| 0237 | 06/07/85            | 02-RM -MON -228   | 020265    | HIGH ALARM SETPOINT IS 5500                          | ADJUSTED SETPOINT TO 4890 R/HR OF CHECK GOOD   |
| 0237 | 06/09/85            | 02-RC -TI -465    | 020511    | OFF SCALE LOW  | CHECKED CALIBRATION AT LOW LEVEL AMPLIFIER, FOUND TO BE IN CAL. FOUND LEADS SHORTED AT RTD. CORRECTED LEADS PROBLEM, OF CHECK SAT.             |
| 0237 | 06/10/85            | 02-CH -FI -2110   | 011741    | PERFORM REFUELING CALIBRATION                        | CALIBRATE TRANSMITTER&INDICATOR  |
| 0237 | 06/10/85            | 02-CH -FT -2110   | 018485    | TRANSMITTER BURNT UP.                                | REPLACED FLOW ELEMENT CONSTRUCTION DID THE WORK  |
| 0237 | 06/10/85            | 02-CH -RV -2203   | 013514    | VALVE WEEPING THROUGH;                               | OVL RELIEF VALVE, REPLACED RING DISC, GASKET, SPRING, DISC, BELLOWS SPINDLE & GUIDE & NOZZLE RING. TESTED SAT.                                 |
| 0237 | 06/10/85            | 02-FW -FI -200C   | 020236    | INDICATING 200 GPM FLOW                              | INDICATOR READING ZERO SAME AS FI 200 A & B MONITORED INDICATOR BUT FOUND NO PROBLEM   |
| 0237 | 06/10/85            | 02-RC -DETR-NA    | 013156    | RECONNECT DETECTORS                                  | REPLACED HARDLINES ON A&B REPLACED PREAMP ON B CONNECTED ALL ACCELEROMETERS AND HARDLINES ON SAFETIES CHECK SAT                                |
| 0237 | 06/10/85            | 02-RC -LI -2459B  | 017164    | GAUGE READS LESS THAN ZERO                           | REPLACED ISOLATOR LM-2-459B FAILED LOW PT SENT TO ENG.   |
| 0237 | 06/10/85            | 02-RC -REC -FR-2  | 020489    | SHOWS NO SEAL LEAKOFF FLOW FOR A & B                 | CHECKED TRANSMITTER FULL SCALE FOUND NO PROBLEM  |
| 0237 | 06/10/85            | 02-RM -PI -2600A  | 019900    | 'A' RHR PUMP DISCH PRESS GAUGE                       | CHECKED GAGE BY OPENING LINE GAGE WENT TO ZERO PUT GAGE BACK IN SERVICE AND INDICATION WENT BACK TO 80. THERE IS PRESSURE TRAPPED IN THE LINE. |
| 0237 | 06/12/85            | 02-MS -PT -201B   | 018068    | INSTALL 0-60 PSIG PRESSURE                           | INSTALLED GAUGE 5/28/85<br>REMOVED GAUGE 6/12/85   |
| 0237 | 06/13/85            | 02-RC -TI -NA     | 016934    | REPLACE STATES BLOCKS                                | REPLACED STATES BLOCKS IN CH'S 1,2 AND 3 OF 0 POT  |

| DEPT | RETURNED TO SERVICE | MARK NUMBER       | WO NUMBER | WO TITLE                                    | HISTORY SUMMARY   |
|------|---------------------|-------------------|-----------|---|---|
| 0237 | 06/14/85            | 02-BS -MISC-NA    | 005680    | DETERMINE IF ROTOR LONG ALARM is valid.     | CALIBRATED & PEN. CHECKED OPERATION SAT   |
| 0237 | 06/14/85            | 02-CV -TV -250B   | 020699    | AIR LINE DISCONNECTED.                      | INSTALLED MISSING AIR LINE  |
| 0237 | 06/14/85            | 02-MS -PI -201C   | 018066    | INSTALL 0-60 PSIG PRESSURE                  | INSTALLED GAUGE 5/28/85<br>REMOVED GAUGE 6/12/85  |
| 0237 | 06/14/85            | 02-RC -PCV -2455C | 008391    | REMOVE/INSTALL INSTRUMENTATION              | RECONNECTED HARDLINES AND ACCELOMETERS  |
| 0237 | 06/17/85            | 02-RC -DETR-NA    | 013158    | RECONNECT DETECTORS LOOSE                   | RECONNECTED HEADLINES, SOFT LINES & ACCELEROMETERS. PERFORMED HAMMER TEST AND VERIFIED ALL LOOPS OPERATIONAL. CHECKED SAT.  |
| 0237 | 06/17/85            | 02-RC -MON -B     | 020616    | ERRATIC INDICATION                          | VOID:NO PROBLEM NOTED. MONITOR IS IN ITS NORMAL LOCKED UP CONDITION BECAUSE UNIT IS SHUTDOWN.   |
| 0237 | 06/17/85            | 02-RC -PCV -2456  | 008390    | REMOVE/INSTALL INSTRUMENTATION              | RECONNECTED HEADLINE & ACCELEROMETERS. ACCELEROMETERS TESTED FOR PROPER OPS BY HAMMER TEST ON PIPES. ALL SAT.   |
| 0237 | 06/18/85            | 02-RS -FI -205B   | 017179    | INDICATES FLOW 12000 GPM                    | VOID WORK DECIDED NOT NECESSARY   |
| 0237 | 06/20/85            | 02-CH -FT -2113   | 018483    | CHECK TRANSMITTER FOR ELECTRICAL damage.    | FLOW ELEMENT REPLACED BY CONSTRUCTION CHECKED CALIBRATION SAT<br>PT SENT TO ENGINEERING   |
| 0237 | 06/20/85            | 02-RC -E -1A      | 017443    | WESTINGHOUSE TO PERFORM EDDY                | EDDY CURRENT INSPECTION OF A STEAM GENERATOR TUBES  |
| 0237 | 06/20/85            | 02-RC -TI -469    | 020693    | TEMP INDICATOR FAILED.                      | REMOVED RTD FROM WELL SO THE MECHS COULD REPLACE BROKEN NIPPLE.<br>REINSTALLED RTD SAT.   |
| 0237 | 06/20/85            | 02-SW -PS -3      | 019349    | IMPLEMENT SETPOINT CHANGE                   | CHANGED SETPOINT FROM 10 PSIG TO 8 PSIG AS PER SP 85-09 PERFORMED<br>PT 2.35B OP SAT<br>PT SENT TO ENGINEERING  |
| 0237 | 06/20/85            | 02-SW -PS -7      | 019351    | IMPLEMENT SETPOINT CHANGE                   | CHANGED SETPOINT AS PER SP 85-09 FROM 10 PSIG TO 8 PSIG PERFORMER<br>PT 2.35A OP SAT<br>PT SENT TO ENGINEERING  |
| 0237 | 06/21/85            | 02-CH -FCV -2113  | 020884    | REPAIR VARIOUS INSTRUMENT                   | HAD OPS OPERATE VALVE TO ENSURE PRESSURE IN LINES. SNOOPED LINES TIGHTENED LEAKS RE-SNOOPED CHECKED VALVE STROKE OP SAT.  |
| 0237 | 06/21/85            | 02-CH -PI -1104   | 020811    | PRESSURE GAUGE READING 34 PSIG              | ISOLATED OL GAUGE. READ 35 PSI. OPERATOR REMOVED GAUGE. GAUGE READING DROPPED TO 30 PSI REPLACED WITH SPARE GAUGE INST CALIBRATED. UPON OPENING ISOLATION VALVE GAUGE READS 5 PSI |
| 0237 | 06/21/85            | 02-HG -H2A -NA    | 017690    | EWR 85-120, INSTALL NEW LEEDS               | COMPLETED EWR-120 INSTRUMENTATION<br>SEE WO 3800014012  |
| 0237 | 06/21/85            | 02-RFI-ROD -J-13  | 021304    | J-13 INDICATING 23 STEPS AFTER tripping Rx. | READ SEARCH COIL.IT READ .395 VAC SO ACCORDING TO SEARCH COIL VOLTAGE THE ROD IS ON THE BOTTOM.CALIBRATED SIGNAL CONDITIONING MODULE AND IT CHECKED GOOD<br>cycle Sat             |
| 0237 | 06/24/85            | 02-FW -LT -497    | 020907    | STOPPED INDICATING, DOES NOT change.        | TIGHTENED ISOLATION AND TEST VALVE PACKING FILLED REFERENCE LEG. OP   |

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|------|---------------------|-------------------|-----------|--|---|
| 0237 | 06/24/85            | 02-MS -FI -2485   | 021050    | STEAM FLOW INDICATES WITH NO<br>Actual steam flow. | CALIBRATED FM-2485  |
| 0237 | 06/24/85            | 02-MS -TCV -207B  | 008308    | REMOVE/INSTALL INSTRUMENTATION                     | REMOVED AND REINSTALLED INST.   |
| 0237 | 06/25/85            | 02-CH -FCV -2113A | 021016    | LOST BORIC ACID FLOW SEVERAL<br>times investigate. | RE-TIGHTENED SIGNAL CONNECTIONS<br>ON THE FLOW CONVERTER. OP CHECK SAT  |
| 0237 | 06/25/85            | 02-RC -TE -421C   | 021045    | INDICATION IS ERRATIC.                             | CHECKED RTD RESISTANCE FROM THE<br>RACKS. THE RTD IS OPEN. WROTE WR<br>212520 TO FIX AT COLD SHUTDOWN                       |
| 0237 | 06/26/85            | 02-CS -LI -200A   | 011997    | PERFORM REFUELING CALIBRATION                      | ADJUSTED TRANSMITTER  |
| 0237 | 06/26/85            | 02-CS -LI -200A   | 020872    | CALIBRATE LEVEL INDICATOR                          | CHECKED INDICATOR ON REFUELING CAL.<br>LOOP OP SAT. WO 3800011997   |
| 0237 | 06/26/85            | 02-CS -LI -200B   | 020873    | CALIBRATE LEVEL INDICATOR                          | RAW INDICATOR NO PROBLEMS OP SAT  |
| 0237 | 06/26/85            | 02-CS -LI -200C   | 020871    | CALIBRATE LEVEL INDICATOR                          | RAW INDICATOR, NO PROBLEMS OP SAT   |
| 0237 | 06/26/85            | 02-CS -LI -200D   | 020870    | CALIBRATE LEVEL INDICATOR                          | RAW INDICATOR, NO PROBLEM, OP SAT.  |
| 0237 | 06/26/85            | 02-FW -FCV -2488  | 017573    | DISCONNECT AND RECONNECT FOR<br>Mechanics.         | REPLACED LIMIT SWITCHES. VALVE CYCL<br>ED SAT   |
| 0237 | 06/26/85            | 02-HI -DETR-31B   | 020976    | LOSS OF DETECTOR VOLTAGE,                          | REPLACED HIGH VOLTAGE POWER SUPPLY  |
| 0237 | 06/26/85            | 02-RC -DETR-NA    | 019616    | FAILED HIGH MAY BE DUE TO<br>ster ingress.         | SELECTOR WORKING SAT; VIBRATION ON<br>2-RC-P-1A INDICATING SAT.   |
| 0237 | 06/26/85            | 02-FM -HIC -2142  | 011830    | PERFORM REFUELING CALIBRATION                      | COMPLETED REFUELING CALIBRATION   |
| 0237 | 06/26/85            | 02-RPI-ROD -N-7   | 021333    | N-7, P-6, F-14, D-4 > 12 STEPS                     | ADJUSTED INDICATOR READINGS TO SAT<br>OUTPUT  |
| 0237 | 06/28/85            | 02-CH -E -1       | 012228    | NDE TO PERFORM PT & VT ON<br>welds                 | UCR PERFORMED UT + VT EXAM ON WELDS<br>ON 2-CH-E-1  |
| 0237 | 06/28/85            | 02-CH -E -2       | 012229    | NDE TO PERFORM PT & VT ON<br>welds                 | UCR PERFORMED VT & UT ON WELD ON<br>2-CH-E-2  |
| 0237 | 06/28/85            | 02-CH -E -4       | 012225    | NDE TO PERFORM VT ON WELDS.                        | (W) PERFORM UT ON WELDS 2+2 AND<br>FLANGE BOLTS   |
| 0237 | 06/28/85            | 02-CH -FL -4A     | 012232    | NDE TO PERFORM PT & VT ON<br>welds                 | WESTINGHOUSE PERFORMED INSPECTIONS<br>UT & VT ON WELDS 1, W-S-3 ON BOLTS<br>AS PER ISI PROGRAM                              |
| 0237 | 06/28/85            | 02-CH -PP -NA     | 012219    | NDE TO PERFORM VT & PT ON<br>welds                 | UCR PERFORMED PT AND VT INSPECTION<br>ON ABOVE WELDS  |
| 0237 | 06/28/85            | 02-CH -TK -1C     | 012173    | VT INSPECTIONS FOR IGSCC                           | NDE PERFORMED UT EXAM ON TANK FOR<br>IGSCC ADDITIONS FIBEROPTICS EXAM<br>WAS REQUIRED TO VERIFY RESULTS OF<br>VT INDICATION |
| 0237 | 06/28/85            | 02-CH -TK -2      | 012230    | NDE TO PERFORM PT ON SUPPORTS.                     | NDE PERFORMED PT EXAM ON WELDED<br>SUPPORTS ON THE VOLUME CONTROL<br>LOCK 2-CH-TK-2   |
| 0237 | 06/28/85            | 02-CS -PP -103    | 012222    | NDE TO PERFORM PT EXAMINE.                         | (W) PERFORMED INSPECTION ON<br>CONTAINMENT SPRAY RING   |
| 0237 | 06/28/85            | 02-CS -PP -104    | 012221    | NDE TO PERFORM PT ON PIPE                          | (W) PERFORMED VT AND PT EXAM ON<br>9"X9" AREA ON 6 LOCATION ON THE<br>CONTAINMENT SPRAY RINGS                               |

| DEPT | RETURNED TO SERVICE | MARK NUMBER       | WO NUMBER | WO TITLE                                    | HISTORY SUMMARY  |
|------|---------------------|-------------------|-----------|---|--|
| 0237 | 06/28/85            | 02-ES -PP -16"    | 012170    | NDE TO PERFORM VT THICKNESS ON elbows 1 & 2 | NDE PERFORMED VT THICKNESS ON ELBOWS 1 & 2   |
| 0237 | 06/28/85            | 02-ES -PP -18"    | 012166    | NDE TO PERFORM VT THICKNESS ON              | NDE PERFORMED VT THICKNESS ON ELBOWS FROM CONDENSER WALL TO 2-FW-E-3B  |
| 0237 | 06/28/85            | 02-RC -MOV -2592  | 012185    | NDE TO EXAMINE BOLTS                        | (W) PERFORMED VT AND UT EXAM ON BOLTS FOR 2-RC-MOV-2592  |
| 0237 | 06/28/85            | 02-RC -P -1B      | 012214    | NDE TO PERFORM PT ON SUPPORTS               | (W) PERFORM PT EXAM ON WELDED SUPPORT 1,2,3,4 TO BE PERFORMED AT A LATER DATE ALSO INSPECTED FLANGE BOLTING  |
| 0237 | 06/28/85            | 02-RC -PP -NA     | 012186    | NDE TO PERFORM PT & VT ON welds             | (W) PERFORMED PT EXAM ON WELD #4,14 TO BE DONE AT A LATER DATE   |
| 0237 | 06/28/85            | 02-RC -PP -NA     | 012188    | NDE TO PERFORM PT ON WELDS                  | VCR PERFORMED PT+VT EXAM ON WELDS #1 AND 5 #1 WAS REJECTED AND INDICATIONS WAS REMOVED BY STATION MAINTENANCE AN RE-EXAMINED AND CLEANED BY PT EXAM                      |
| 0237 | 06/28/85            | 02-RC -PP -NA     | 012216    | NDE TO PERFORM VT & PT ON welds             | (W)PERFORMED INSPECTION ON WELD 7,8,9, AND WS-1 AS PER ISI PROGRAM   |
| 0237 | 06/28/85            | 02-RC -PP -NA     | 012218    | NDE TO PERFORM PT & VT ON welds             | WESTINGHOUSE PERFORMED VT EXAM ON W WELD #5. WELDS 6 & 11 & WS-4 TO BE DONE AT A LATER DATE.   |
| 0237 | 06/28/85            | 02-RC -PP -15     | 012220    | NDE TO PERFORM VT ON WS-15                  | NDE PERFORMED VISUAL INSPECTIONS ON WELDED SUPPORT #15   |
| 0237 | 06/28/85            | 02-RC -PP -5      | 012179    | NDE TO PERFORM PT & VT ON WELD              | WESTINGHOUSE PERFORMED VT & PT EXAM ON WELD #5   |
| 0237 | 06/28/85            | 02-RC -PP -5 & 6  | 012181    | NDE TO PERFORM PT & VT ON welds 5 & 6       | WESTINGHOUSE PERFORMED VT & PT EXAM ON WELDS 5 & 6   |
| 0237 | 06/28/85            | 02-RC -R -1       | 012165    | WESTINGHOUSE TO PERFORM ISI                 | WESTINGHOUSE PERFORMED EXAM ON VESSEL FLANGE LIGAMENTS AND HEAD BOLTS & STUDS.   |
| 0237 | 06/28/85            | 02-RC -ROD -F12   | 021307    | CONTROL ROD F12 WILL NOT MOVE.              | CHECKED INTO SEARCH COIL BUT READING NOT RELIABLE,CHECKED SIGNAL CONDITIONING MODULE CHECKED SAT RAW VISCORDER TRACE AND NO TRACE ON LIFT COIL PULLED FUSES IN 2B CABINE |
| 0237 | 06/28/85            | 02-RH -E -1A      | 012226    | NDE TO PERFORM VT & PT ON welds             | (W) EXAMINED WELDS ON 2-RH-E-1A UT-PT AND VT   |
| 0237 | 06/28/85            | 02-RH -PP -NA     | 012180    | NDE TO PERFORM PT & VT ON welds             | WESTINGHOUSE PERFORMED PT & UT EXAM ON WELDS 2, 6 & 1BC  |
| 0237 | 06/28/85            | 02-SI -PP -1(BC)  | 012187    | NDE TO PERFORM PT ON WELD                   | NDE PERFORMED PT ON WELD 1BC   |
| 0237 | 06/28/85            | 02-SI -PP -19     | 012217    | NDE TO PERFORM PT & VT ON welds             | (W) PERFORMED PT + VT ON WELDED SUPPORT H-19   |
| 0237 | 06/29/85            | 02-MS -FI -2485   | 021356    | CHECK CAL                                   | MONITORED LOOP FOR SEVERAL HOURS AND SAW NO SIGNS OF ERRATIC INDICATION,NO FUTHER WORK DEEMED NECESSARY AT THIS TIME   |
| 0237 | 06/29/85            | 02-RC -ROD -CONTR | 021352    | BANK OVERLAP IS NOT WORKING.                | RESET MASTER COUNTER IN LOGIC CABINET AND RESET TO APPROPRIATE NUMBER.BANK OVERLAP SYSTEM NOW WORKING FINE   |



| DEPT | RETURNED TO<br>SERVICE | MARK NUMBER      | WO<br>NUMBER | WO TITLE  | HISTORY SUMMARY   |
|------|------------------------|------------------|--------------|---|---|
| 0237 | 06/29/85               | 02-RPI-ROD -F-8  | 021353       | GREATER THAN 12 STEP  | CHECKED CALIBRATION OF SIGNAL<br>CONDITIONER MODULE<br>CHECKED SAT  |
| 0237 | 06/29/85               | 02-RPI-ROD -G-3  | 021305       | ROD INDICATOR SHOWS 16 STEPS                                    | READ SEARCH COIL AND IT WAS .374<br>VAC ACCORDING TO THIS VOLTAGE THE<br>ROD IS ON THE BOTTOM.CHECKED CALIBR<br>ATION OF SIGNAL CONDITIONING MODULE<br>CHECKED GOOD |
| 0237 | 06/29/85               | 02-RPI-ROD -G-3  | 021355       | ROD INDICATES 15 STEPS WHEN<br>Group counter indicates 0 steps  | CHECKED CALIBRATION OF SIGNAL<br>CONDITIONING MODULE CHECKED SAT  |
| 0237 | 06/29/85               | 02-RPI-ROD -J-13 | 021354       | ROD INDICATES 25 STEPS WHEN<br>Group counter indicates 0 steps. | CHECKED CALIBRATION OF SIGNAL<br>CONDITIONING MODULE CHECKED SAT  |