



GULF STATES UTILITIES COMPANY

RIVER BEND STATION POST OFFICE BOX 220 ST FRANCISVILLE, LOUISIANA 70775
AREA CODE 804 635-8094 348-8951

February 26, 1993
RBG- 38193
File Nos. G9.5, G9.25.1.5

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

Gentlemen:

River Bend Station - Unit 1
Docket No. 50-458

Enclosed is the River Bend Station (RBS) Annual Operating Report for 1992. This report is submitted in accordance with Technical Specification 6.9.1.4 and 6.9.1.5 of Appendix A to RBS Operating License NPF-47.

Sincerely,

J. E. Booker
Manager - Safety Assessment
and Quality Verification

LAE/LLD/WJS/pj

Enclosure

cc: U.S. Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 400
Arlington, TX 76011

NRC Resident Inspector
P.O. Box 1051
St. Francisville, LA 70775

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GULF STATES UTILITIES COMPANY

RIVER BEND STATION

ANNUAL OPERATING REPORT

FOR

1992

TABLE OF CONTENTS

1.0	OCCUPATIONAL RADIATION SUMMARY REPORT
2.0	SRV HISTORY
3.0	REACTOR COOLANT SYSTEM SPECIFIC ACTIVITY ANALYSIS

OCCUPATIONAL RADIATION SUMMARY REPORT

Enclosed in this section is a report on Occupational Radiation Exposure for River Bend Station personnel for the year 1992 as required by 10CFR20.407, Regulatory Guide 1.16, and Technical Specification Section 6.9.1.5a of Appendix A to River Bend Station Operating License NPF-47.

The attached table is developed from pocket dosimeter data. The River Bend Station TLD total for 1992 is 709.8 man-rem.

REG GUIDE 1-16 REPORT
GULF STATES UTILITIES - NRC LICENSE

P. O. Box 220

St. Francisville, LA 70775

WORK & JOB FUNCTION	NUMBER OF PERSONNEL (>100.0 MREM)				TOTAL MAN REM	
	STATION EMPLOYEES	UTILITY EMPLOYEES	CONTRACT WORKERS & OTHERS	STATION EMPLOYEES	UTILITY EMPLOYEES	CONTRACT WORKERS & OTHERS
REACTOR OPERATIONS & SURVEILLANCE:						
MAINTENANCE PERSONNEL	5.9	0.1	11.2	2.922	0.026	5.773
OPERATING PERSONNEL	47.2	0.0	1.1	19.094	0.000	0.108
HEALTH PHYSICS PERSONNEL	19.7	0.0	49.5	11.314	0.000	29.628
SUPERVISORY PERSONNEL	0.0	0.9	0.4	0.000	0.079	0.090
ENGINEERING PERSONNEL	6.2	3.1	5.7	2.193	1.231	2.504
ROUTINE MAINTENANCE:						
MAINTENANCE PERSONNEL	10.9	0.0	52.5	6.029	0.000	29.465
OPERATING PERSONNEL	0.1	0.0	0.0	0.013	0.000	0.000
HEALTH PHYSICS PERSONNEL	0.5	0.0	5.6	0.340	0.000	2.299
SUPERVISORY PERSONNEL	0.6	0.0	0.7	0.069	0.000	0.108
ENGINEERING PERSONNEL	0.3	0.9	16.1	0.052	0.241	12.119
INSERVICE INSPECTION:						
MAINTENANCE PERSONNEL	5.7	0.0	93.8	3.300	0.000	70.212
OPERATING PERSONNEL	2.6	0.0	0.0	0.951	0.000	0.000
HEALTH PHYSICS PERSONNEL	3.1	0.0	4.9	1.695	0.000	2.058
SUPERVISORY PERSONNEL	0.0	0.0	0.4	0.000	0.000	0.069
ENGINEERING PERSONNEL	3.2	2.7	37.5	0.596	0.919	57.186
SPECIAL MAINTENANCE:						
MAINTENANCE PERSONNEL	59.7	0.9	327.9	58.681	0.245	262.481
OPERATING PERSONNEL	10.5	0.0	1.3	4.854	0.000	2.139
HEALTH PHYSICS PERSONNEL	11.7	0.0	25.4	6.477	0.000	13.213
SUPERVISORY PERSONNEL	0.4	0.1	1.0	0.043	0.009	0.495
ENGINEERING PERSONNEL	5.5	6.8	37.9	1.222	1.642	17.643
WASTE PROCESSING:						
MAINTENANCE PERSONNEL	0.4	0.0	33.4	0.189	0.000	19.322
OPERATING PERSONNEL	4.3	0.0	4.6	0.046	0.000	5.620
HEALTH PHYSICS PERSONNEL	1.4	0.0	9.4	0.011	0.000	5.478
SUPERVISORY PERSONNEL	0.0	0.0	0.0	0.000	0.000	0.000
ENGINEERING PERSONNEL	0.0	0.0	0.2	0.000	0.000	0.082
REFUELLING:						
MAINTENANCE PERSONNEL	0.3	0.0	41.2	0.125	0.000	18.283
OPERATING PERSONNEL	3.3	0.0	0.0	0.440	0.000	0.000
HEALTH PHYSICS PERSONNEL	0.6	0.0	5.2	0.588	0.000	2.535
SUPERVISORY PERSONNEL	0.0	0.0	0.4	0.000	0.000	0.060
ENGINEERING PERSONNEL	3.8	1.5	21.6	0.602	0.219	6.310
TOTALS*						
MAINTENANCE PERSONNEL	83	1	560	63.246	0.271	405.536
OPERATING PERSONNEL	68	0	7	26.398	0.000	7.867
HEALTH PHYSICS PERSONNEL	37	0	100	21.425	0.000	55.211
SUPERVISORY PERSONNEL	1	1	3	0.112	0.088	0.822
ENGINEERING PERSONNEL	19	15	119	4.565	4.252	96.244
GRAND TOTALS	208	17	789	115.846	4.611	565.680

*FIGURES REPRESENT THE ACTUAL NUMBER OF PERSONNEL EXPOSED.

SAFETY RELIEF VALVE HISTORY

During 1992, River Bend Station experienced four reactor scrams. On March 5, 1992 at 0202 hours, a reactor scram (92-02) occurred due to tornadic winds causing building sheet metal to fall on the main transformer. During this event, reactor pressure increased to 1110 psig causing a challenge to five SRVs of low-low setpoint 1103 psig. The SRVs involved were 1B21*VF047F, 051B, 051C, 051D, and 051G. After their initial opening they did not open again. During this event, the four SRVs of higher setpoint (1113 psig) 1B21*RVF047A, 047B, 047C, and 047D operated as expected and did not open.

During March through September 1992, River Bend Station had Refueling Outage #4, in which all sixteen SRVs were removed and replaced with a new compliment of SRVs previously inspected, refurbished, and tested offsite by Crosby Valve in 1991. The maintenance activities are documented in Attachment #1.

Once installed, the new valves were tested to Surveillance Test Procedure (STP) 202-0602, and ADS Safety Relief Valve Operability Test, dated September 8, 1992. All sixteen SRVs passed satisfactorily.

The operating history of these valves during 1992 was as follows:

January - March, 1992

Nine SRVs experienced elevated tail pipe temperatures of 215°F - 250°F indicating SRV weepage.

After RF-4 Outage
September - December,
1992

Four SRVs experienced elevated temperatures of 215°F - 230°F indicating SRV weepage.

ATTACHMENTS

Attachment 1 - Maintenance Activities Performed on All Valves
Attachment 2 - Leakage Log for SRVs During Operation
Attachment 3 - Actuation Events for Five SRVs During
Scram #92-02

ATTACHMENT 1

MAINTENANCE ACTIVITIES PERFORMED ON ALL
MAIN STEAM SAFETY/RELIEF VALVES

(64 SHEETS)

MAINTENANCE ACTIVITY

Prepared by: John Murray
Approved by: GMDolney

SRVS

NOTE: MUST BE COMPLETED EACH TIME MAINTENANCE IS DONE ON ANY VALVE. INCLUDES ANY RELOCATION OF ANY VALVE.

401. S/R VALVE SERIAL NUMBER N 63800-00-0040
402. PLANT'S COMPONENT ID PRIOR TO MAINT. (or "S" IF FROM STORAGE) 1B21*RVFO41A

403. TYPE OF MAINTENANCE CODE

- A. ☒ SCHEDULED/ROUTINE MAINTENANCE - NO FAILURE REQUIRING MAINTENANCE HAS OCCURRED SINCE LAST MAINTENANCE PERIOD
- B. ☐ NON-IMMEDIATE MAINTENANCE - SCHEDULED FOR NEXT OUTAGE AFTER A NON-CATASTROPHIC FAILURE OCCURRED
- C. ☐ UNSCHEDULED/IMMEDIATE MAINTENANCE - A FAILURE OCCURRED THAT REQUIRED IMMEDIATE MAINTENANCE BE PERFORMED
- D. ☒ VALVE RELOCATION REPORT ONLY - VALVE INSTALLED WITH NO MAINTENANCE PERFORMED.

404. TYPE REPORT

- A. ☒ COMPLETE
- B. ☐ INCOMPLETE - MAINTENANCE DETAILS ENTER
- C. ☐ ADDITIONS TO PREVIOUSLY INCOMPLETE REPORT
- D. ☐ REVISIONS TO PREVIOUSLY COMPLETED REPORT

NOTE: FOR C. AND D., ITEMS 403 AND 430 MUST MATCH THOSE ON REPORT TO BE APPENDED.

NOTE: IF MAINTENANCE IS ASSOCIATED WITH ANY FAILURE, COMPLETE ITEMS 410 ONWARD. IF NO FAILURE HAS OCCURRED, CONTINUE FROM ITEM 430.

410. DATE OF FAILURE (Mo/Da/Yr) _____
411. AUTOMATIC PRESSURE SWITCH OPERABLE? ☐ YES OR ☐ NO
412. ELECTRIC POWER SUPPLY AVAILABLE? ☐ YES OR ☐ NO

413. VOLTAGE OF ELECTRIC POWER SUPPLY _____

415. MODE(S) OF FAILURE DETECTION (CHECK AS MANY AS APPLICABLE)

- A. ☐ TAILPIPE THERMOCOUPLE READING HIGH
- B. ☐ ANNUNCIATOR - TAILPIPE PRESSURE SWITCH
- C. ☐ PANEL INDICATOR LIGHTS
- D. ☐ DROP IN ELECTRICAL OUTPUT
- E. ☐ STEAM-FLUID FLOW MISMATCH
- F. ☐ IMBALANCE IN STEAM FLOW AMONG STEAM LINES
- G. ☐ RISE IN SUPPRESSION POOL TEMPERATURE
- H. ☐ RISE IN SUPPRESSION POOL LEVEL
- I. ☐ SLIGHT TRANSIENT DROP IN VESSEL LEVEL
- J. ☐ RADIATION MONITOR(S)
- K. ☐ ACOUSTIC MONITOR(S)
- L. ☐ DIRECT-MOUNTED S/R POSITION INDICATOR
- M. ☐ INDIRECT-MOUNTED S/R POSITION INDICATOR
- N. ☐ OTHER (EXPLAIN IN ITEM 419)

416. EFFECT OF FAILURE ON PLANT CODE (CHECK ONE ONLY)

- A. ☐ POWER REDUCTION
- B. ☐ TURBINE TRIP
- C. ☐ MANUAL SCRAM
- D. ☐ AUTOMATIC SCRAM
- E. ☐ EXTENSION OF PRE-EXISTING SHUTDOWN
- F. ☐ MANUAL SHUTDOWN
- G. ☐ NO SIGNIFICANT EFFECT

418. TYPE FAILURE (CHECK AS MANY AS APPLICABLE)

- A. ☐ LIFTED PREMATURELY -
- B. ☐ LIFTED BELOW SETPOINT
- C. ☐ LIFTED PAST SETPOINT
- D. ☐ FAILED TO LIFT
- E. ☐ FAILED TO RECLOSE
- F. ☐ FAILED TO FULLY RESEAT
- G. ☐ LEAKAGE (OTHER THAN MINOR)
- H. ☐ INADVERTENT OPENING OF S/R VALVE
- I. ☐ OTHER (EXPLAIN IN ITEM 419)

417. TEMP. OF ENVIRONMENT AROUND S/R VALVE (IF AVAILABLE)

419. WERE THERE ANY ATTACHMENTS (LVDT, POSITION INDICATOR, ETC.) ATTACHED TO S/R VALVE NOT DEPICTED ON ORIGINAL "AS FURNISHED" VALVE? IF SO, SPECIFY WHAT AND WHEN ATTACHED. REFERENCE TESTS PERFORMED TO VERIFY COMPATIBILITY WITH VALVE PERFORMANCE: _____

SRVS

MAINTENANCE ACTIVITY (CONT'D.)

PLANT DOCKET # 50-458

PAGE 2 OF 4

S/R VALVE SERIAL NUMBER N63800-00-0040

419. DESCRIPTION OF FAILURE, INCLUDING DETECTION MODE:

N/A

430. DATE REMOVED FROM SERVICE (MO/DA/YR)

"AS FOUND" TESTS PERFORMED PRIOR TO DISASSEMBLY:

434.
TEST TYPE CODE
(SELECT ONE PER
LINE)435.
PARAMETER MEASURED
CODE (SELECT ONE
PER LINE)436. 1
NUMERICAL RESULTS OF
TESTS - INCLUDE UNITS
OR GIVE LEAKAGE RATE
OR WRITE "NO LEAK"
FOR LEAKAGE TESTS437.
RESULTS OF TEST
ACCEPTABLE?
"YES" OR "NO"1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. __________

438. TYPE TEST CODE:

- A. SET POINT TEST - STEAM
- B. SET POINT TEST - N₂ (NITROGEN)
- C. OPERATIONAL RELIEF TEST - STEAM
- D. OPERATIONAL RELIEF TEST - N₂
- E. LEAK TEST - STEAM
- F. LEAK TEST - N₂
- X. OTHER _____

439. PARAMETER MEASURED CODE (SELECT
ONE PARAMETER PER TEST. IF MORE
THAN ONE PARAMETER IS MEASURED
IN A TEST, REPEAT TEST TYPE CODE.)

- A. SET POINT - LIFT PRESSURE
- B. RESEAT - RECLOSE PRESSURE
- C. VALVE OPENING DELAY TIME -
MANUAL MODE
- D. VALVE OPENING DELAY TIME -
AUTOMATIC MODE
- E. MAIN DISC OPENING STROKE TIME -
MANUAL MODE
- F. MAIN DISC OPENING STROKE TIME -
AUTOMATIC MODE
- G. PILOT STAGE SEAT TIGHTNESS
- H. MAIN STAGE SEAT TIGHTNESS
- J. FLANGED CONNECTION GASKET LEAKAGE
- X. OTHER _____

451. PLANTING MATERIAL/REPLANTING
PERMITTING IS ISSUED BY (CNC) (CNC)

A. ☐ **WATER** **VALVE** **REGULATOR**

B. ☐ **WATER** **VALVE** **REGULATOR**

C. ☒ **WATER** **VALVE** **REGULATOR**

MS. PAINTED MAP OF THE FLORIDA RIVER
PEOPLE OF THE FLORIDA RIVER
(1860-1870)

OPERATIONS
MAINTENANCE
CONSTRUCTION
THE VENTURE

1953. (Continued), Lab. on Vernal
Circumference Only 11 from 1952
is "C"

711	CROSS VALVE & GEAR CO.
712	DIRECTOR
713	GRASSER VALVE
714	GENERAL ELECTRIC CO.
715	GRAND VALVE MFG. MFRS.
716	TARGET TREN CO.
717	WATER LABS.
718	WATER LABS.

ref5. **MAINTENANCE/REPAIRS** (SEEING
PERFORMED SELECT AS MANY
AS APPLICABLE)

ACTUATION STAGES REPLACED
TOWERS REPLACED WITH ONE OF SAME SETPOINT
REAR VENT, DISC
MACHINE PILOT VALVE DISC
CLEAN & REWORK PILOT ASSEMBLIES
SETPOINT ADJUSTING
VALVE INLET BORE SIZE INCREASED
SOLENOID ASSEMBLY REMOVED, REINSTALLED
REPILOT STEAM BLOWDOWN (SHUFFLE
REPLACE PISTON RINGS)
REPLACE G-RINGS
REPLACE DIAPHRAGM(S)
REPLACE/REPAIR BELLOW
REPLACE/REPAIR GASKETS(S)
REPLACE/REPAIR SPRINGS(S)
OTHER (EXPLAIN IN NARRATIVE)

Describe Damage/Cause of Failure (check as many as apply in each column)
Answer both Q55 and Q56. If a failure has occurred, do not answer Q56 if
no failure has occurred.

455.	456.
<p>RECEIVED</p> <p>DAMAGE</p> <p>CONTAINED TO</p> <p>ANY FAILURE</p>	<p>CAUSE OF FAILURE /</p> <p>DAMAGE BEGINNING</p> <p>FROM FAILURE IF</p> <p>FAILURE WAS CONTAINED</p>

PILOT DISC STEAM CUT OFF DAMAGED
PISTON RINGS WORN, DAMAGED
DAMAGE TO SEAT(S)
FOREIGN MATERIAL (GRIET, CRUD)
DAMAGE TO 2ND STAGE PISTON
SET POINT DRIFT - NOT DAMAGE RELATED
DAMAGED SPRINGS
CASTING DEFECTS
OTHER MANUFACTURING DEFECTS
IMPROPER ASSEMBLY OR INSTALLATION, MISSING,
NORMAL WEAR - RINGS(S) (BEYOND NORMAL WEAR)
DAMAGED O-RINGS(S) DAMAGED
DIAPHRAGM(S) DAMAGED
GASKET(S) WORN BEYOND NORMAL, EXPECTED WEAR
BELLOWS DAMAGED, WORN
BROKEN AIR LINE
SOLENOID FAILURE
FAILURE OF AIR OPERATOR ASSEMBLY
OTHER (EXPLAIN IN NARRATIVE)
NEXT TYPICALLY BELONGING TO FAILURE

460. DETAILS OF OBSERVED DAMAGE/CAUSE OF FAILURE NARRATIVE:

SRVS

MAINTENANCE ACTIVITY (CONT'D.)

PLANT DOCKET # 50- 458

PAGE 4 OF 4

S/R VALVE SERIAL NUMBER N63800-00-0090

470. DETAILS OF MAINTENANCE/REFINISHING NARRATIVE: SCHEDULED REMOVAL AND REPLACEMENT OF THESE SRV's DURING RF-4. ALL REFURBISHMENT AND TESTING PERFORMED PRIOR TO INSTALLATION. TESTING PERFORMED DOCUMENTED ON STP-000-3606 AND STP-202-0602 DATED 9-8-92.

480. DATE TESTED AFTER REASSEMBLY (MO/DA/YR)

9-8-92

481. TEST REPORT NUMBERS FOR POST REASSEMBLY BENCH TESTS:

POST REASSEMBLY BENCH TEST RESULTS (ONLY THOSE WHICH MEASURE PERTINENT PARAMETERS SUCH AS SET POINT, RESEAT PRESSURE, ETC.)

489. TEST TYPE CODE (SELECT ONE PER LINE)

485. PARAMETER MEASURED CODE (SELECT ONE PER LINE)

486. NUMERICAL RESULTS OF TEST - INCLUDE UNITS (OR GIVE LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS)

487. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____

1

490. DATE REINSTALLED IN SERVICE (MO/DA/YR)

*BEFORE 9-4-92

491. COMPONENT ID WHERE VALVE REINSTALLED (OR "S" IF STORED OR "D" IF DISPOSED)

CODES

489. TYPE TEST CODE:

- A. SET POINT TEST - STEAM
- B. SET POINT TEST - N₂ (NITROGEN)
- C. OPERATIONAL RELIEF TEST - STEAM
- D. OPERATIONAL RELIEF TEST - N₂
- E. LEAK TEST - STEAM
- F. LEAK TEST - N₂
- X. OTHER

485. PARAMETER MEASURED CODE (SELECT ONE PARAMETER PER TEST. IF MORE THAN ONE PARAMETER IS MEASURED IN A TEST, REPEAT TEST TYPE CODE.)

- A. SET POINT - LIFT PRESSURE
- B. RESEAT - RECLOSE PRESSURE
- C. VALVE OPENING DELAY TIME - MANUAL MODE
- D. VALVE OPENING DELAY TIME - AUTOMATIC MODE
- E. MAIN DISC OPENING STROKE TIME - MANUAL MODE
- F. MAIN DISC OPENING STROKE TIME - AUTOMATIC MODE
- G. PILOT STAGE SEAT TIGHTNESS
- H. MAIN STAGE SEAT TIGHTNESS
- J. FLANGED CONNECTION GASKET LEAKAGE
- X. OTHER

Prepared by: John Murray
Approved by: G.M. DeWay

SRVS

MAINTENANCE ACTIVITY

1000, PLANT DOCKET #50- 458

NOTE: MUST BE COMPLETED EACH TIME MAINTENANCE IS DONE ON ANY VALVE. INCLUDES ANY RELOCATION OF ANY VALVE.

401. S/R VALVE SERIAL NUMBER N63800-00-0107

402. PLANT'S COMPONENT ID PRIOR TO MAINT. (on "S" IF FROM STORAGE) 1B218RVE04UB

403. TYPE OF MAINTENANCE CODE

- A. ☒ SCHEDULED/ROUTINE MAINTENANCE - NO FAILURE REQUIRING MAINTENANCE HAS OCCURRED SINCE LAST MAINTENANCE PERIOD
- B. ☐ NON-ROUTINE MAINTENANCE - SCHEDULED FOR NEXT OUTAGE
- C. ☐ AFTER A NON-CATASTROPHIC FAILURE OCCURRED
- D. ☐ UNUSUAL/IRREGULAR MAINTENANCE - A FAILURE OCCURRED THAT REQUIRED IMMEDIATE MAINTENANCE BE PERFORMED
- E. ☒ VALVE RELOCATION REPORT ONLY - VALVE INSTALLED WITH NO MAINTENANCE PERFORMED.

404. TYPE REPORT

- A. ☒ COMPLETE
- B. ☐ INCOMPLETE - MAINTENANCE DETAILS LATER
- C. ☐ ADDITIONS TO PREVIOUSLY INCOMPLETE REPORT
- D. ☐ REVISIONS TO PREVIOUSLY COMPLETED REPORT

NOTE: FOR C. AND D., ITEMS 401 AND 402 MUST MATCH THOSE ON REPORT TO BE AMENDED.

NOTE: IF MAINTENANCE IS ASSOCIATED WITH ANY FAILURE, COMPLETE ITEMS 410 THROUGH 417. IF NO FAILURE HAS OCCURRED, CONTINUE FROM ITEM 420.

410. DATE OF FAILURE (Mo/Da/Yr)

411. AUTOMATIC PRESSURE SWITCH OPERABLE? ☐ YES OR ☐ NO

412. ELECTRIC POWER SUPPLY AVAILABLE? ☐ YES OR ☐ NO

413. VOLTAGE OF ELECTRIC POWER SUPPLY

415. NAME(S) OF FAILURE DETECTOR (CHECK AS MANY AS APPLICABLE)

419. TYPE FAILURE (CHECK AS MANY AS APPLICABLE)

- A. ☐ LEAKED PREMATURELY -
- B. ☐ LEAKED BELOW SETPOINT
- C. ☐ LEAKED PA-T SETPOINT
- D. ☐ FAILED TO LIFT
- E. ☐ FAILED TO RECLOSE
- F. ☐ LEAKAGE (OTHER THAN MINOR)
- G. ☐ INADEQUATE OPENING OF S/R VALVE
- H. ☐ OTHER (EXPLAIN IN ITEM 419)

- A. ☐ TAILPIPE THERMOCOUPLE READING HIGH
- B. ☐ AMPLIFIER - TAILPIPE PRESSURE SWITCH
- C. ☐ PANEL INDICATOR LIGHTS
- D. ☐ DROP IN ELECTRICAL OUTPUT
- E. ☐ STEAM-FEED FLOW DISCHARGE
- F. ☐ INCREASE IN STEAM FLOW AMONG STEAM LINES
- G. ☐ RISE IN SUPPRESSION POOL TEMPERATURE
- H. ☐ RISE IN SUPPRESSION POOL LEVEL
- I. ☐ SLIGHT TRANSIENT DROP IN VESSEL LEVEL
- J. ☐ RADIATION MONITOR(S)
- K. ☐ ACOUSTIC MONITOR(S)
- L. ☐ DIRECT MOUNTED S/R POSITION INDICATOR
- M. ☐ INDIRECT MOUNTED S/R POSITION INDICATOR
- N. ☐ OTHER (EXPLAIN IN ITEM 419)

416. EFFECT OF FAILURE ON PLANT CODE (CHECK ONE ONLY)

- A. ☐ POWER REDUCTION
- B. ☐ TURBINE TRIP
- C. ☐ MANUAL SCRAM
- D. ☐ AUTOMATIC SCRAM
- E. ☐ EXTENSION OF PRE-EXISTING SHUTDOWN
- F. ☐ MANUAL SHUTDOWN
- G. ☐ NO SIGNIFICANT EFFECT

417. TEMP. OF ENVIRONMENT AROUND S/R VALVE (IF AVAILABLE)

418. WERE THERE ANY ATTACHMENTS (LVDI, POSITION INDICATOR, ETC.) ATTACHED TO S/R VALVE NOT DEPICTED ON ORIGINAL "AS FURNISHED" VALVE? IF SO, SPECIFY WHAT AND WHEN ATTACHED. REFERENCE TESTS PERFORMED TO VERIFY COMPATIBILITY WITH VALVE PERFORMANCE:

SRVS

MAINTENANCE ACTIVITY (CONT'D.)

PLANT DOCKET # 50 458 PAGE 2 OF 4

S/R VALVE SERIAL NUMBER N63800-00-0127

419. DESCRIPTION OF FAILURE, INCLUDING DETECTION POINT: N/A

420. DATE REMOVED FROM SERVICE (Mo/Da/Yr) _____

"AS FOUND" TESTS PERFORMED PRIOR TO DISASSEMBLY:

421. TEST TYPE CODE (SELECT ONE PER LINE)	422. PARAMETER MEASURED CODE (SELECT ONE PER LINE)	423. RESULTS OF TEST (YES, NO, OR LEAKAGE RATE)	424. RESULTS OF TEST (YES, NO, OR LEAKAGE RATE)
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____

430. TYPE TEST CODE:

- A. SET POINT TEST - S₁, N₁
- B. SET POINT TEST - S₂, N₂ (N₁, -SEM)
- C. OPERATIONAL RELIEF TEST - STEAM
- D. OPERATIONAL RELIEF TEST - N₂
- E. LEAK TEST - STEAM
- F. LEAK TEST - N₂
- G. OTHER

435. PARAMETER MEASURED CODE (SELECT ONE PARAMETER PER TEST. IF MORE THAN ONE PARAMETER IS MEASURED IN A TEST, REPEAT TEST TYPE CODE.)

- A. SET POINT - LIFT PRESSURE
- B. RESEAT - RECLOSURE PRESSURE
- C. VALVE OPENING DELAY TIME - MANUAL MODE
- D. VALVE OPENING DELAY TIME - AUTOMATIC MODE
- E. MAIN DISC OPENING STROKE TIME - MANUAL MODE
- F. MAIN DISC OPENING STROKE TIME - AUTOMATIC MODE
- G. PILOT STAGE SEAT TIGHTNESS
- H. MAIN STAGE SEAT TIGHTNESS
- I. FLANGED CONNECTION GASKET LEAKAGE
- J. OTHER

[illegible]

- ☐ NO SITE VALVE
☐ ON SITE VALVE
☒ LAY ON BUY REMAINING
☐ (OFF SITE)

452. Politeness and politeness
Politeness and politeness
Politeness and politeness

- 
 UNIVERSITY OF CAMBRIDGE
 DEPARTMENT OF CHEMISTRY
 CHEMISTRY LABORATORY, 100 MILL LANE, CAMBRIDGE CB2 3RQ, U.K.

453. CONTRACTION. LAB. ON VERNIER
CLOCK (see ONLY IF ITEM 452
IS "C")

- | | |
|------|-----------------------------------|
| 1111 | CROSS VALVE & GASKET CO. |
| 1116 | DIVERS |
| 1121 | CROSS VALVE |
| 1127 | GENERAL ELECTRIC COMP. |
| 1129 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1130 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1131 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1136 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1137 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1138 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1139 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1140 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1141 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1142 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1143 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1144 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1145 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1146 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1147 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1148 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1149 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1150 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1151 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1152 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1153 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1154 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1155 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1156 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1157 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1158 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1159 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1160 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1161 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1162 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1163 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1164 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1165 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1166 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1167 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1168 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1169 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1170 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1171 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1172 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1173 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1174 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1175 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1176 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1177 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1178 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1179 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1180 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1181 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1182 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1183 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1184 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1185 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1186 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1187 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1188 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1189 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1190 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1191 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1192 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1193 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1194 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1195 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1196 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1197 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1198 | CROSS VALVE IND. MFGS. CO. (CODE) |
| 1199 | CROSS VALVE IND. MFGS. CO. (CODE) |

[illegible]

- ACTUATION STAGES REPLACED
TOWERS REPLACED WITH ONE OF SAME SETPOINT
1
REPL VALV, DISC
REWORKING PILOT VALVE DISC
CLEAR & REWORK PILOT ASSEMBLIES
SETPOINT ADJUSTMENT
VALVE INJECT BOSS SIZE INCREASED
SOLENOID ASSEMBLY REMOVED, REINSTALLED
REWORKING STEAM BLOWDOWN INTERFACE
REPLACE PILOT RING(S)
REPLACE VALV-RINGS
REPLACE STEAMHEAD(S)
REPLACE REPAIR BLOWERS
REPLACE REPAIR BLOWERS
REPLACE REPAIR BLOWERS
OTHER EXPLAIN IN NARRATIVE

CONSIDER DEDUCTIBLE CAUSE OF FAILURE (CHECK AS MANY AS APPLICABLE IN EACH COLUMN)
 ANSWER BOTH A'S, AND A-5. IF A FAILURE HAS OCCURRED, DO NOT ANSWER A-5 IF
 NO FAILURE HAS OCCURRED.

Q55.	Q56.	CAUSE OF FAILURE/ REASON FOR NOT OBTAINING FINANCING (IF FAILURE HAS OCCURRED)
DEVELOPED SOURCE DEFERRED TO ANOTHER FUNDRAISER		

q55. Deuteronomy q56.

455. **Deer** 010

[illegible]

.....

PILOT DISC STEAM OUT ON DAMAGE U
PISTON RINGS WORN, DAMAGED
DAMAGE TO SEAT(S)
FOREIGN MATERIAL (WIRE, LEAD) ON
DAMAGE TO 2ND STAGE PISTON
SET POINT DEFECT, NOT DAMAGE REL
DAMAGED SPRINGS
CASTING DEFECTS
OTHER MANUFACTURING DEFECTS
IMPROPER ASSEMBLY OR INSTALLATION
NORMAL WEAR
DAMAGED "O"-RINGS(S) (RECORD DOCUMENT
UNPRECEDENT(S) DAMAGE
UNUSUAL(S) WORN RECORD NORMAL, EX
BELOW(S) DAMAGE, WORN
BROKEN AIR LINE
VALVE/ID FALING
FAILURE OF AIR OPERATOR ASSEMBLY
OTHER (EXPLAIN IN NARRATIVE)

NO DAMAGE TO CEMENT

4660. DETAILS OF OBSERVED DAMAGE / CAUSE OF FAILURE NARRATIVE :

SRVS

MAINTENANCE ACTIVITY (CONT'D.)

PLANT DOCKET # 50-458
S/W VALVE SERIAL NUMBER N 63809-02-017

PAGE 4 OF 4

N70. DETAILS OF MAINTENANCE/REFURBISHING NARRATIVE: SCHEDULED REMOVAL AND REPLACEMENT OF THESE SRV's DURING RE-4. ALL REFURBISHMENT AND TESTING PERFORMED PRIOR TO INSTALLATION. TESTING PERFORMED DOCUMENTED ON STP-000-3606 AND STP-202-0602 DATED 9-8-92.

N80. DATE TESTED AFTER REASSEMBLY (Mo/Da/Yr)		N81. TEST REPORT NUMBERS FOR POST REASSEMBLY BENCH TESTS:	
9-8-92			
POST REASSEMBLY BENCH TEST RESULTS (ONLY FINDS WHICH MEASURE PERTINENT PARAMETERS SUCH AS SET POINT, RESEAT PRESSURE, ETC.)			
N84. TEST TYPE CODE (SELECT ONE PER LINE)	N85. PARAMETER MEASURED CODE (SELECT ONE PER LINE)	N86. NUMERICAL RESULTS OF TEST - INCLUDE UNITS (OR GIVE LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS)	N87. RESULTS OF TEST - ACCEPTABLE? "YES" OR "NO"
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			

N90. DATE REINSTALLED IN SERVICE (Mo/Da/Yr)		N91. COMPONENT ID WHERE VALVE REINSTALLED (OR "S" IF STORED OR "D" IF DISPOSED)	
* BEFORE 9-4-92			

CODES

- N84. TYPE TEST CODE:
- A. SET POINT TEST - STEAM
 - B. SET POINT TEST - N₂ (INERTIUM)
 - C. OPERATIONAL RELIEF TEST - STEAM
 - D. OPERATIONAL RELIEF TEST - N₂
 - E. LEAK TEST - STEAM
 - F. LEAK TEST - N₂
 - G. OTHER
- N85. PARAMETER MEASURED CODE (SELECT ONE PARAMETER PER TEST. IF MORE THAN ONE PARAMETER IS MEASURED IN A TEST, REPEAT TEST TYPE CODE.)
- A. SET POINT - LAST PRESSURE
 - B. RESEAT - RECLOSE PRESSURE
 - C. VALVE OPENING DELAY TIME - MANUAL MODE
 - D. VALVE OPENING DELAY TIME - AUTOMATIC MODE
 - E. MAIN STG. OPENING STROKE TIME - MANUAL MODE
 - F. MAIN STG. OPENING STROKE TIME - AUTOMATIC MODE
 - G. PILOT STAGE SEAT TIGHTNESS
 - H. MAIN STAGE SEAT TIGHTNESS
 - J. FLANGED CONNECTION GASKET LEAKAGE
 - K. OTHER

Prepared by: John Murray
Approved by: G.M. Dolney

SRVS

MAINTENANCE ACTIVITY

000. PLANT DOCKET #50. 458

PAGE 3 OF 4

NOTE: MUST BE COMPLETED EACH TIME MAINTENANCE IS DONE ON ANY VALVE. INCLUDES ANY RELOCATION OF ANY VALVE.

001. S/R VALVE SERIAL NUMBER N63800-00-0109

002. PLANT'S COMPONENT ID PRIOR TO MAINT. (on -5- IF FROM STORAGE) 1B218RVF041C

003. TYPE OF MAINTENANCE CODE

- A. ☒ SCHEDULED/ROUTINE MAINTENANCE - NO FAILURE REQUIRING MAINTENANCE HAS OCCURRED SINCE LAST MAINTENANCE PERIOD
- B. ☐ NON-IMMEDIATE MAINTENANCE - SCHEDULED FOR NEXT OUTAGE
- C. ☐ AFTER A NON-CATASTROPHIC FAILURE OCCURRED
- D. ☐ UNSCHEDULED/IMMEDIATE MAINTENANCE - A FAILURE OCCURRED THAT REQUIRED IMMEDIATE MAINTENANCE BE PERFORMED
- E. ☒ VALVE RELOCATION REPORT ONLY - VALVE INSTALLED WITH NO MAINTENANCE PERFORMED.

004. TYPE REPORT

- A. ☒ COMPLETE
- B. ☐ INCOMPLETE - MAINTENANCE DETAILS LATER
- C. ☐ ADDITIONS TO PREVIOUSLY INCOMPLETE REPORT
- D. ☐ REVISIONS TO PREVIOUSLY COMPLETED REPORT

NOTE: FOR C. AND D., ITEMS 003 AND 002 MUST MATCH THOSE ON REPORT TO BE AMENDED.

NOTE: IF MAINTENANCE IS ASSOCIATED WITH ANY FAILURE, COMPLETE ITEMS 010 THROUGH 019. IF NO FAILURE HAS OCCURRED, CONTINUE FROM ITEM 020.

010. DATE OF FAILURE (Mo/Da/Yr)

011. AUTOMATIC PRESSURE SWITCH OPERABLE?

012. ELECTRIC POWER SUPPLY AVAILABLE?

☐ YES OR ☐ NO

☐ YES OR ☐ NO

013. VOLTAGE OF ELECTRIC POWER SUPPLY

015. MODE(S) OF FAILURE DETECTION (CHECK AS MANY AS APPLICABLE)

016. EFFECT OF FAILURE ON PLANT CODE (CHECK ONE ONLY)

019. TYPE FAILURE (CHECK AS MANY AS APPLICABLE)

- A. ☐ TAILPIPE THERMOCOUPLE READING HIGH
- B. ☐ ANNUNCIATOR - TAILPIPE PRESSURE SWITCH
- C. ☐ PANEL INDICATOR LIGHTS
- D. ☐ DROP IN ELECTRICAL OUTPUT
- E. ☐ STEAM-FEED FLOW MISMATCH
- F. ☐ IMBALANCE IN STEAM FLOW AMONG STEAM LINES
- G. ☐ RISE IN SUPPRESSION POOL TEMPERATURE
- H. ☐ RISE IN SUPPRESSION POOL LEVEL
- I. ☐ SLIGHT TRANSIENT DROP IN VESSEL LEVEL
- J. ☐ RADIATION MONITOR(S)
- K. ☐ ACOUSTIC MONITOR(S)
- L. ☐ DIRECT-MOUNTED SRY POSITION INDICATOR
- M. ☐ INDIRECT-MOUNTED SRY POSITION INDICATOR
- N. ☐ OTHER (EXPLAIN IN ITEM 019)

- A. ☐ POWER REDUCTION
- B. ☐ TURBINE TRIP
- C. ☐ MANUAL SCRAM
- D. ☐ AUTOMATIC SCRAM
- E. ☐ EXTENSION OF PRE-EXISTING SCRAM
- F. ☐ MANUAL SHUTDOWN
- G. ☐ NO SIGNIFICANT EFFECT

- A. ☐ TRIPED PREMATURELY -
- B. ☐ TRIPED BELOW SETPOINT
- C. ☐ TRIPED PALE SETPOINT
- D. ☐ FAILED TO TRIP
- E. ☐ FAILED TO RECLOSE
- F. ☐ FAILED TO FULLY RESTART
- G. ☐ VERGE (OTHER THAN MINOR)
- H. ☐ INVERTED OPENING OF S/R VALVE
- I. ☐ OTHER (EXPLAIN IN ITEM 019)

017. TEMP. OF ENVIRONMENT AROUND S/R VALVE (IF AVAILABLE)

018. WERE THERE ANY ATTACHMENTS (LVDT, POSITION INDICATOR, ETC.) ATTACHED TO S/R VALVE NOT REPLICED ON ORIGINAL "AS FURNISHED" VALVE? IF SO, SPECIFY WHAT AND WHEN ATTACHED. REFERENCE TESTS PERFORMED TO VERIFY COMPATIBILITY WITH VALVE PERFORMANCE:

S/R VALVE SERIAL NUMBER N62809-00-0109

019. Description of Failure, Including Detection Mode:

Date Received From Service (MM/DD/YY)

"As Found" Tests Performed Prior to Disassembly:

TEST TYPE (CODE SELECT ONE PER LINE)	PARAMETER PREDEFINED (CODE: SELECT ONE PER LINE)	NUMERICAL RESULTS OF TESTS - INCLUDE UNITS ON GIVE LEASAGE RATE ON WHITE "NO LEAS" FOR LEASAGE TESTS	RESULTS OF TEST ACCEPTABLE? YES OR NO
36.			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			

Q.No.	Type	Test Code :
1	MCQ	01
2	MCQ	02
3	MCQ	03
4	MCQ	04
5	MCQ	05
6	MCQ	06
7	MCQ	07
8	MCQ	08
9	MCQ	09
10	MCQ	10
11	MCQ	11
12	MCQ	12
13	MCQ	13
14	MCQ	14
15	MCQ	15
16	MCQ	16
17	MCQ	17
18	MCQ	18
19	MCQ	19
20	MCQ	20
21	MCQ	21
22	MCQ	22
23	MCQ	23
24	MCQ	24
25	MCQ	25
26	MCQ	26
27	MCQ	27
28	MCQ	28
29	MCQ	29
30	MCQ	30
31	MCQ	31
32	MCQ	32
33	MCQ	33
34	MCQ	34
35	MCQ	35
36	MCQ	36
37	MCQ	37
38	MCQ	38
39	MCQ	39
40	MCQ	40
41	MCQ	41
42	MCQ	42
43	MCQ	43
44	MCQ	44
45	MCQ	45
46	MCQ	46
47	MCQ	47
48	MCQ	48
49	MCQ	49
50	MCQ	50
51	MCQ	51
52	MCQ	52
53	MCQ	53
54	MCQ	54
55	MCQ	55
56	MCQ	56
57	MCQ	57
58	MCQ	58
59	MCQ	59
60	MCQ	60
61	MCQ	61
62	MCQ	62
63	MCQ	63
64	MCQ	64
65	MCQ	65
66	MCQ	66
67	MCQ	67
68	MCQ	68
69	MCQ	69
70	MCQ	70
71	MCQ	71
72	MCQ	72
73	MCQ	73
74	MCQ	74
75	MCQ	75
76	MCQ	76
77	MCQ	77
78	MCQ	78
79	MCQ	79
80	MCQ	80
81	MCQ	81
82	MCQ	82
83	MCQ	83
84	MCQ	84
85	MCQ	85
86	MCQ	86
87	MCQ	87
88	MCQ	88
89	MCQ	89
90	MCQ	90
91	MCQ	91
92	MCQ	92
93	MCQ	93
94	MCQ	94
95	MCQ	95
96	MCQ	96
97	MCQ	97
98	MCQ	98
99	MCQ	99
100	MCQ	100

- [illegible]

Parameter	Parameter Code	Unit
Q15	Q15	mm
Q16	Q16	mm
Q17	Q17	mm
Q18	Q18	mm
Q19	Q19	mm
Q20	Q20	mm
Q21	Q21	mm
Q22	Q22	mm
Q23	Q23	mm
Q24	Q24	mm
Q25	Q25	mm
Q26	Q26	mm
Q27	Q27	mm
Q28	Q28	mm
Q29	Q29	mm
Q30	Q30	mm
Q31	Q31	mm
Q32	Q32	mm
Q33	Q33	mm
Q34	Q34	mm
Q35	Q35	mm
Q36	Q36	mm
Q37	Q37	mm
Q38	Q38	mm
Q39	Q39	mm
Q40	Q40	mm
Q41	Q41	mm
Q42	Q42	mm
Q43	Q43	mm
Q44	Q44	mm
Q45	Q45	mm
Q46	Q46	mm
Q47	Q47	mm
Q48	Q48	mm
Q49	Q49	mm
Q50	Q50	mm
Q51	Q51	mm
Q52	Q52	mm
Q53	Q53	mm
Q54	Q54	mm
Q55	Q55	mm
Q56	Q56	mm
Q57	Q57	mm
Q58	Q58	mm
Q59	Q59	mm
Q60	Q60	mm
Q61	Q61	mm
Q62	Q62	mm
Q63	Q63	mm
Q64	Q64	mm
Q65	Q65	mm
Q66	Q66	mm
Q67	Q67	mm
Q68	Q68	mm
Q69	Q69	mm
Q70	Q70	mm
Q71	Q71	mm
Q72	Q72	mm
Q73	Q73	mm
Q74	Q74	mm
Q75	Q75	mm
Q76	Q76	mm
Q77	Q77	mm
Q78	Q78	mm
Q79	Q79	mm
Q80	Q80	mm
Q81	Q81	mm
Q82	Q82	mm
Q83	Q83	mm
Q84	Q84	mm
Q85	Q85	mm
Q86	Q86	mm
Q87	Q87	mm
Q88	Q88	mm
Q89	Q89	mm
Q90	Q90	mm
Q91	Q91	mm
Q92	Q92	mm
Q93	Q93	mm
Q94	Q94	mm
Q95	Q95	mm
Q96	Q96	mm
Q97	Q97	mm
Q98	Q98	mm
Q99	Q99	mm

- | | | |
|----|-----------------------------------|--|
| A. | SET POINT - LIFT PRESSURE | |
| B. | RESET - RECLOSE PRESSURE | |
| C. | VALVE OPENING DELAY TIME | |
| | MANUAL MODE | |
| D. | VALVE OPENING DELAY TIME | |
| | AUTOMATIC MODE | |
| E. | MAIN DISC OPENING STROKE TIME | |
| | MANUAL MODE | |
| F. | MAIN DISC OPENING STROKE TIME | |
| | AUTOMATIC MODE | |
| G. | PILOT STAGE SEAT TIGHTNESS | |
| H. | MAIN STAGE SEAT TIGHTNESS | |
| I. | FLANGED CONNECTION GASKET LEAKAGE | |
| J. | OTHER | |

SRVS
Initiated By: John Murray
Approved By: G. M. Delaney

MAINTENANCE ACTIVITY (CONT'D.)

PLANT JACKET #30 458

S/R VALVE SERIAL NUMBER N63800-00-0109

451. MAINTENANCE/REFURBISHING PERFORMED WHERE? (CHECK ONE)
A. ☐ IN-SITU (VALVE REMAINS IN PLACE)
B. ☐ ON-SITE (VALVE IS REMOVED FROM INSTALLATION BUT REMAINS ON PLANT SITE)
C. ☒ OFF-SITE

452. MAINTENANCE/REFURBISHING PERFORMED BY WHOM? (CHECK ONE)
A. ☐ OPERATIONS
B. ☐ MAINTENANCE CONTRACTOR, LAB, OR VENDOR
C. ☒ OTHER

453. CONTRACTOR, LAB, OR VENDOR? (CHECK ONE ONLY IF ITEM 452 IS "C")
C711 CROSBY VALVE & GAGE CO.
D167 DIPPERN
B243 PRESSER VALVE
G082 GENERAL ELECTRIC CORP.
0959 ORANSO VALVE (NOT REIDS CODE)
1070 TARGET TOOL CORP.
M336 NYLE LABS
OTHER:

454. OBSERVED DAMAGE/CAUSE OF FAILURE (CHECK AS MANY AS APPLICABLE IN EACH COLUMN) ANSWER BOTH 455 AND 456. IF A FAILURE HAS OCCURRED, DO NOT ANSWER 456 IF NO FAILURE HAS OCCURRED.

455. OBSERVED DAMAGE/CAUSE OF FAILURE (CHECK AS MANY AS APPLICABLE IN EACH COLUMN) ANSWER BOTH 455 AND 456. IF A FAILURE HAS OCCURRED, DO NOT ANSWER 456 IF NO FAILURE HAS OCCURRED.

456. CAUSE OF FAILURE/ DAMAGE RESULTING FROM FAILURE (IF FAILURE HAS OCCURRED)

PISTON DISC STEAM CUT OR DAMAGED
PISTON RINGS WORN, DAMAGED
DAMAGE TO SEAT(S)
FOREIGN MATERIAL (GROUT, LUBR) ON/ABOUT SEAT
DAMAGE TO 2ND STAGE PISTON
SET POINT (WEFT - NOT DAMAGE RELATED)
DAMAGED SPRING(S)
CASTING DEFECTS
OTHER MANUFACTURING DEFECTS
IMPROPER ASSEMBLY OR INSTALLATION, MISSING PARTS
NORMAL WEAR
DAMAGED "U"-RING(S) (BEYOND NORMAL WEAR)
DIAPHRAGM(S) DAMAGED
GASKET(S) WORN BEYOND NORMAL, EXPECTED WEAR
BELLWIS DAMAGED, WORN
BROKEN AIR LINE
SOLENOID FAILURE
FAILURE OF AIR OPERATOR ASSEMBLY
OTHER (EXPLAIN IN NARRATIVE)

NO DAMAGE EXCEPT THAT DIRECTLY RELATING TO FAILURE

460. DETAILS OF OBSERVED DAMAGE /CAUSE OF FAILURE NARRATIVE:

465. MAINTENANCE/REFURBISHING PERFORMED (SELECT AS MANY AS APPLICABLE)

ACTUATION STAGES REPLACED
TORNWORMS REPLACED WITH ONE OF SAME SETPOINT
RELAP SEAT, DISC
MACHINING PILOT VALVE DISC
CLEAN & REMOVED PILOT ASSEMBLIES
SETPOINT ADJUSTMENT
VALVE INDOOR BORE SIZE INCREASED
SOLENOID ASSEMBLY REMOVED, REINSTALLED
REPAIR STEAM BLOWDOWN UNIFILE
REPLACE PISTON RING(S)
REPLACE "U"-RING(S)
REPLACE DIAPHRAGM(S)
REPLACE/REPAIR BELLWIS
REPLACE/REPAIR GASKET(S)
REPLACE/REPAIR SPRING(S)
OTHER (EXPLAIN IN NARRATIVE)

SRVS

MAINTENANCE ACTIVITY (CONT'D.)

 PLANT DOCKET # 50-458 PAGE 9 OF 9
 S/R VALVE SERIAL NUMBER N63800-00-0109

470. DETAILS OF MAINTENANCE/REFURBISHING MAINTENANCE: SCHEDULED REMOVAL AND REPLACEMENT
 OF THESE SRV's DURING RE-4. ALL REFURBISHMENT AND
 TESTING PERFORMED PRIOR TO INSTALLATION. TESTING
 PERFORMED DOCUMENTED ON SIP-000-3606 AND SIP-202-0602
 DATED 9-8-92.

480. DATE TESTED AFTER REASSEMBLY (Mo/Da/Yr) 481. TEST REPORT NUMBERS FOR POST REASSEMBLY BENCH TESTS:

9-8-92

POST REASSEMBLY BENCH TEST RESULTS (ONLY THOSE WHICH MEASURE PERTINENT PARAMETERS SUCH AS SET POINT, RESEAT PRESSURE, ETC.)

484. TEST TYPE CODE (SELECT ONE PER LINE)	485. PARAMETER MEASURED CODE (SELECT ONE PER LINE)	486. NUMERICAL RESULTS OF TEST INCLUDE UNITS (OR GIVE LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS)	487. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____

490. DATE REINSTALLED IN SERVICE
 (Mo/Da/Yr)

* BEFORE 9-4-92

491. COMPONENT ID WHERE VALVE REINSTALLED
 (OR "S" IF STORED OR "D" IF DISPOSED)

COMES

484. TYPE TEST CODE:

A. SET POINT TEST - STEAM
 B. SET POINT TEST - N₂ (NITROGEN)
 C. OPERATIONAL RELIEF TEST - STEAM
 D. OPERATIONAL RELIEF TEST - N₂
 E. LEAK TEST - STEAM
 F. LEAK TEST - N₂
 H. OTHER

485. PARAMETER MEASURED CODE (SELECT
 ONE PARAMETER PER TEST. IF MORE
 THAN ONE PARAMETER IS MEASURED
 IN A TEST, REPEAT TEST TYPE CODE.)

A. SET POINT - LIFT PRESSURE
 B. RESEAT - RECLOSE PRESSURE
 C. VALVE OPENING DELAY TIME -
 MANUAL MODE
 D. VALVE OPENING DELAY TIME -
 AUTOMATIC MODE
 E. MAIN DISC OPENING STROKE TIME -
 MANUAL MODE
 F. MAIN DISC OPENING STROKE TIME -
 AUTOMATIC MODE
 G. PILOT STAGE SEAT TIGHTNESS
 H. MAIN STAGE SEAT TIGHTNESS
 J. FLANGED CONNECTION GASKET LEAKAGE
 K. OTHER

Prepared by: John Murray
Approved by: G.M. Dolney

458

MAINTENANCE ACTIVITY

600. PLANT DOCKET #50

NOTE: MUST BE COMPLETED EACH TIME MAINTENANCE IS DONE ON ANY VALVE. INCLUDES ANY RELOCATION OF ANY VALVE.

401. S/R VALVE SERIAL NUMBER N63800-00-0106

402. PLANT'S COMPONENT ID FROM TO PAINT. (on "S" if from Storage) 1B21-RVFD41D

403. TYPE OF MAINTENANCE CODE

- A. ☒ SCHEDULED/ROUTINE MAINTENANCE - NO FAILURE REQUIRING MAINTENANCE HAS OCCURRED SINCE LAST MAINTENANCE PERIOD
- B. ☐ NON-IMMEDIATE MAINTENANCE - SCHEDULED FOR NEXT OUTAGE AFTER A NON-CATASTROPHIC FAILURE OCCURRED
- C. ☐ UNSCHEDULED/IMMEDIATE MAINTENANCE - A FAILURE OCCURRED THAT REQUIRED IMMEDIATE MAINTENANCE BE PERFORMED
- D. ☒ VALVE RELOCATION REPORT ONLY - VALVE INSTALLED WITH NO MAINTENANCE PERFORMED.

404. TYPE REPORT

- A. ☒ COMPLETE
- B. ☐ INCOMPLETE MAINTENANCE DETAILS LATER
- C. ☐ ADDITIONS TO PREVIOUSLY INCOMPLETE REPORT
- D. ☐ REVISIONS TO PREVIOUSLY COMPLETED REPORT

NOTE: FOR C. AND D., ITEMS 401 AND 450 MUST MATCH THOSE ON REPORT TO BE APPENDED.

NOTE: IF MAINTENANCE IS ASSOCIATED WITH ANY FAILURE, COMPLETE ITEMS 410 THROUGH 417. IF NO FAILURE HAS OCCURRED, CONTINUE FROM ITEM 450.

410. DATE OF FAILURE (Mo/Da/Yr)

411. AUTOMATIC PRESSURE SWITCH OPERABLE?

☐ YES OR ☐ NO

412. ELECTRIC POWER SUPPLY AVAILABLE?

☐ YES OR ☐ NO

413. VOLTAGE OF ELECTRIC POWER SUPPLY

415. MODE(S) OF FAILURE DETECTION (CHECK AS MANY AS APPLICABLE)

414. TYPE FAILURE (CHECK AS MANY AS APPLICABLE)

- A. ☐ LIFTED PREMATURELY
- B. ☐ LIFTED BELOW SETPOINT
- C. ☐ LIFTED PA-1 SETPOINT
- D. ☐ LIFTED TO LIFT
- E. ☐ LIFTED TO RECLOSURE
- F. ☐ LIFTED TO FULLY RESEAT
- G. ☐ LEAKAGE (OTHER THAN MINOR)
- H. ☐ INADEQUATE OPENING OF S/R VALVE
- I. ☐ OTHER (EXPLAIN IN ITEM 419)

- A. ☐ TAILPIPE INTERCOOLER READING HIGH
- B. ☐ ANNUNCIATOR - TAILPIPE PRESSURE SWITCH
- C. ☐ PANEL INDICATOR LIGHTS
- D. ☐ DROP IN ELECTRICAL OUTPUT
- E. ☐ STEAM-HEAT FLOW MISMATCH
- F. ☐ IMBALANCE IN STEAM FLOW AMONG STEAM LINES
- G. ☐ RISE IN SUPPRESSION POOL TEMPERATURE
- H. ☐ RISE IN SUPPRESSION POOL LEVEL
- I. ☐ SLIGHT TRANSIENT DROP IN VESSEL LEVEL
- J. ☐ RADIATION MONITORS
- K. ☐ ACOUSTIC MONITORS
- L. ☐ DIRECT-POUNDED SRY POSITION INDICATOR
- M. ☐ INDIRECT-POUNDED SRY POSITION INDICATOR
- N. ☐ OTHER (EXPLAIN IN ITEM 419)

416. EFFECT OF FAILURE ON PLANT CODE (CHECK ONE ONLY)

- A. ☐ POWER REDUCTION
- B. ☐ TURBINE TRIP
- C. ☐ MANUAL SCRAM
- D. ☐ AUTOMATIC SCRAM
- E. ☐ EXTENSION OF PRE-EXISTING SHUTDOWN
- F. ☐ MANUAL SHUTDOWN
- G. ☐ NO SIGNIFICANT EFFECT

417. TEMP. OF ENVIRONMENT AROUND S/R VALVE (IF AVAILABLE)

°F

418. WERE THERE ANY ATTACHMENTS (LVDT, POSITION INDICATOR, ETC.) ATTACHED TO S/R VALVE NOT DETECTED ON ORIGINAL "AS FURNISHED" VALVE? If so, SPECIFY WHAT AND WHEN ATTACHED. REFERENCE TESTS PERFORMED TO VERIFY COMPATIBILITY WITH VALVE PERFORMANCE:

S/R VALVE SERIAL NUMBER N63800-00-0196

 119. Description of Failure, Including the Reaction Point: |

450. Dave Remyette, Program Services (Phs/Dia/Ven)

"As Found" Tests Performance Prior to Disassembly:

434. Type Code
156601 One Pen
1999

to 55.
PARANG VIKAR PRASTHOD
CODE SELECT ONE
Page 1 of 1

Q 365.
Washing machine, front-loading
Type - front-loading
On five-lance
on white-no label
from lance test

Q37.
RESURVS OF TEST
ACCEPTABLE?
YES OR "NO"

Type Test Code:

[illegible]

435. PARAMETER PASSED CODE
ONE PARAMETER PASSED
FROM ONE PARAMETER
IN A TEST, REPEAT THE TEST

A.	SET POINT - LIFT PRESSURE
B.	RESET - RECLOSURE PRESSURE
C.	VALVE OPENING DELAY TIME - MANUAL MODE
D.	VALVE OPENING DELAY TIME - AUTOMATIC MODE
E.	MAIN DISC OPENING STROKE TIME - MANUAL MODE
F.	MAIN DISC OPENING STROKE TIME - AUTOMATIC MODE
G.	PILOT STAGE SEAT TIGHTNESS
H.	MAIN STAGE SEAT TIGHTNESS
J.	PLANNED CONNECTION GASKET LEAKAGE
K.	OTHER

451. What is the purpose of the 1990 SAT tests?
For college admissions? (College Board)

- | | | | | |
|----|--------------------------|----------|-------------|-----------------|
| A. | <input type="checkbox"/> | IN PLACE | VALVE IS | REMAINS |
| B. | <input type="checkbox"/> | ON-SITE | REMOVE FROM | REMAINS |
| | | | LAUNCH | (ON PLATE SITE) |

657.
 1951 10 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000 1001 1002 1003 1004 1005 1006 1007 1008 1009 1010 1011 1012 1013 1014 1015 1016 1017 1018 1019 1020 1021 1022 1023 1024 1025 1026 1027 1028 1029 1030 1031 1032 1033 1034 1035 1036 1037 1038 1039 1040 1041 1042 10

- OPERATIONS
PLANT IN MANCHESTER
CONSTRUCTION, LAB,
AND WELDING

453. CONTRACTOR, LAG, ON VERNON*
CINCINNATI ONLY IF ITEM 452
IS "C"

- | | | |
|---|------|-------------------------|
| ✓ | C711 | CROSBY VALVE & GAGE CO. |
| | D16 | DRESSER |
| | D43 | DRESSER VALVE |
| | G082 | GENERAL ELECTRIC COMP. |
| | Q929 | GRAND VALVE TOOL WORKS |
| | T070 | TARGET TOOL COMP. |
| | W316 | WYLE LABS. |
| | | OTHER |

465. PLATE NUMBER / DATE 10/1/06
PERFORMED / SIGNATURE
AS APPLICABLE

- ACTUATOR STAGES REPLACED
TOWERS REPLACED WITH ONE OF SAME NETPOINT
BLAD SEAL, DISC
MACHINE PILOT VALVE DINC
CLEAR MEMOR PILOT ASSEMBLIES
SETPOINT ADJUSTMENT
VALVE INPORT BORE SIZE INCREASED
SOLENOID ARMYWAY REMOVED, REINSTALLED
RECOFFING STEAM BLOWDOWN UNIFICE
REPLACE VISION RINGS
REPLACE VISION RINGS
REPLACE BISHAMING(S)
REPLACE REPAIR BALLONS
REPLACE/REPAIR GASKETS
REPLACE/REPAIR SPRINGS
OTHER (EXPLAIN IN REMARKS)

OBSERVE DAMAGE/CAUSE OF FAILURE (CHECK AS MANY AS APPLICABLE IN EACH COLUMN)
 ANSWER BOTH Q55 AND Q56. IF A FAILURE HAS OCCURRED, DO NOT ANSWER Q56 IF
 NO FAILURE HAS OCCURRED.

Q55.	Q56.
<p>UNRESERVED SOURCE</p> <p>CONVERTED TO REV FAILURE</p>	<p>CAUSE OF FAILURE/ PARITY IN SOLVING FROM FAILURE (IF FAILURE WAS OCCURRED)</p>

- PILOT DISC STEAR CUT OR DAMAGED
PISTON RINGS WORN, DAMAGED
DAMAGE TO SEALS
FOREIGN MATERIAL (DIRT, LUB) ON/UNDER SEAT
DAMAGE TO 2ND STAGE PISTON
SET POINT DRIFT - NOT DAMAGE RELATED
DAMAGED SPRING(S)
CASTING DEFECTS
OTHER MANUFACTURING DEFECTS
IMPROPER ASSEMBLY OR INSTALLATION, MISSING PARTS
NORMAL WEAR (HINGES) (BEYOND NORMAL WEAR)
DAMAGED "U" HINGES
WEAR/SCUFFS) DAMAGED
CARPETS) WORN BEYOND NORMAL, EXPECTED WEAR
BELLOWS DAMAGED, BORN
BROKEN AIR LINE
SOLENOID FAILURE
FAILURE OF AIR OPERATOR ASSEMBLY
OTHER (EXPLAIN IN NARRATIVE)
NO DAMAGE EXCEPT THAT DIRECTLY RELATING TO FAILURE

NO DAMAGE EXCEPT THAT DIRECTLY RELATING TO FAILURE

460. DETAILS OF OBSERVED DAMAGE/CAUSE OF FAILURE NARRATIVE:

SRVS

MAINTENANCE ACTIVITY (CONT'D.)

PLANT DOCKET # 50-458
S/R VALVE SERIAL NUMBER N63800-00-0106

PAGE 4 OF 4

470. DETAILS OF MAINTENANCE/REFURBISHING NARRATIVE: SCHEDULED REMOVAL AND REPLACEMENT OF THESE SRV's DURING REF-4. ALL REFURBISHMENT AND TESTING PERFORMED PRIOR TO INSTALLATION. TESTING PERFORMED DOCUMENTED ON STP-000-3606 AND STP-202-0602 DATED 9-8-92.

480. DATE TESTED AFTER REASSEMBLY (Mo/Da/Yr) 9-8-92

481. TEST REPORT NUMBERS FOR POST REASSEMBLY BENCH TESTS:

POST REASSEMBLY BENCH TEST RESULTS (ONLY THOSE WHICH MEASURE PERTINENT PARAMETERS SUCH AS SET POINT, RESET PRESSURE, ETC.)

484. TEST TYPE CODE (SELECT ONE PER LINE)
485. PARAMETER MEASURED CODE (SELECT ONE PER LINE)
486. NUMERICAL RESULTS OF TEST INCLUDE UNITS (OR GIVE "NO LEAKAGE RATE OR WHITE LEAK" FOR LEAKAGE TESTS)
487. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"

1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				

490. DATE REINSTALLED IN SERVICE (Mo/Da/Yr)

* BEFORE 9-4-92

491. COMPONENT ID WHERE VALVE REINSTALLED (OR "S" IF STORED OR "D" IF DISPOSED)

CODES

484. TYPE TEST CODE:

- A. SET POINT TEST - STEAM
- B. SET POINT TEST - N₂ (NITROGEN)
- C. OPERATIONAL RELIEF TEST - STEAM
- D. OPERATIONAL RELIEF TEST - N₂
- E. LEAK TEST - STEAM
- F. LEAK TEST - N₂
- X. OTHER

485.

PARAMETER MEASURED CODE (SELECT ONE PARAMETER PER TEST. IF MORE THAN ONE PARAMETER IS MEASURED IN A TEST, REPEAT TEST TYPE CODE.)

- A. SET POINT - LIFT PRESSURE
- B. RESET - RECLOSE PRESSURE
- C. VALVE OPENING DELAY TIME - Manual Mode
- D. VALVE OPENING DELAY TIME - Automatic Mode
- E. MAIN DISC OPENING STROKE TIME - Manual Mode
- F. MAIN DISC OPENING STROKE TIME - Automatic Mode
- G. PILOT STAGE SEAT TIGHTNESS
- H. PILOT STAGE SEAT TIGHTNESS
- J. FLANGED CONNECTION GASKET LEAKAGE
- X. OTHER

SRVS
Planned by: Tech Murray
Approved by: GM Dancy

MAINTENANCE ACTIVITY
400, PLANT DOCKET #50 458

NOTE: MUST BE COMPLETED EACH TIME MAINTENANCE IS DONE ON ANY VALVE. INCLUDES ANY RELOCATION OF ANY VALVE.

401. S/R VALVE SERIAL NUMBER N63800-00-0039
402. PLANT'S COMPONENT ID PRIOR TO MAINT. (OR "S" IF FROM STORAGE) 1B21*RVFQ41F
403. TYPE OF MAINTENANCE CODE

- A. ☒ SCHEDULED/ROUTINE MAINTENANCE - NO FAILURE REQUIRING MAINTENANCE HAS OCCURRED SINCE LAST MAINTENANCE PERIOD
B. ☐ NON-IMMEDIATE MAINTENANCE - SCHEDULED FOR NEXT OUTAGE
C. ☐ AFTER A NON-CATASTROPHIC FAILURE OCCURRED
D. ☐ UNSCHEDULED/IMMEDIATE MAINTENANCE - A FAILURE OCCURRED THAT REQUIRED IMMEDIATE MAINTENANCE BE PERFORMED
E. ☒ VALVE RELOCATION REPORT ONLY - VALVE INSTALLED WITH NO MAINTENANCE PERFORMED.

404. TYPE REPORT

- A. ☒ COMPLETE
B. ☐ INCOMPLETE - MAINTENANCE DETAILS LATER
C. ☐ ADDITIONS TO PREVIOUSLY INCOMPLETE REPORT
D. ☐ REVISIONS TO PREVIOUSLY COMPLETED REPORT

NOTE: FOR C. AND D., ITEMS 401 AND 402 MUST MATCH THOSE ON REPORT TO BE APPENDED.

NOTE: IF MAINTENANCE IS ASSOCIATED WITH ANY FAILURE, COMPLETE ITEMS 410 THROUGH 417. IF NO FAILURE HAS OCCURRED, CONTINUE FROM ITEM 410.

410. DATE OF FAILURE (Mo/Da/Yr) _____ 411. AUTOMATIC PRESSURE SWITCH OPERABLE? ☐ YES OR ☐ NO 412. ELECTRIC POWER SUPPLY AVAILABLE? ☐ YES OR ☐ NO

413. VOLTAGE OF ELECTRIC POWER SUPPLY _____

415. MODE(S) OF FAILURE DETECTION (CHECK AS MANY AS APPLICABLE)

- A. ☐ FAILPIPE THERMOCOUPLE READING HIGH
B. ☐ ANNUNCIATOR - FAILPIPE PRESSURE SWITCH
C. ☐ PANEL INDICATOR LIGHTS
D. ☐ DROP IN ELECTRICAL OUTPUT
E. ☐ STEAM-FEED FLOW MISMATCH
F. ☐ IMBALANCE IN STEAM FLOW AMONG STEAM LINES
G. ☐ RISE IN SUPPRESSION POOL TEMPERATURE
H. ☐ RISE IN SUPPRESSION POOL LEVEL
I. ☐ SLIGHT TRANSIENT DROP IN VESSEL LEVEL
J. ☐ RADIATION MONITOR(S)
K. ☐ ACOUSTIC MONITOR(S)
L. ☐ DIRECT-MOUNTED SRY POSITION INDICATOR
M. ☐ INDIRECT-MOUNTED SRY POSITION INDICATOR
N. ☐ OTHER (EXPLAIN IN ITEM 419)

416. TYPE FAILURE (CHECK AS MANY AS APPLICABLE)

- A. ☐ LIFTED PREMATURELY -
B. ☐ LIFTED BELOW SETPOINT
C. ☐ LIFTED PAST SETPOINT
D. ☐ FAILED TO LIFT
E. ☐ FAILED TO RECLOSE
F. ☐ LEAKAGE (OTHER THAN MINOR)
G. ☐ INADEQUATE OPENING OF S/R VALVE
H. ☐ OTHER (EXPLAIN IN ITEM 419)

416. EFFECT OF FAILURE ON PLANT CODE (CHECK ONE ONLY)

- A. ☐ POWER REDUCTION
B. ☐ TURBINE TRIP
C. ☐ MANUAL SCRAM
D. ☐ AUTOMATIC SCRAM
E. ☐ EXTENSION OF PRE-EXISTING
F. ☐ SHUTDOWN
G. ☐ MANUAL SHUTDOWN
H. ☐ NO SIGNIFICANT EFFECT

417. TEMP. OF ENVIRONMENT AROUND S/R VALVE (IF AVAILABLE)

418. WERE THERE ANY ATTACHMENTS (VDT, POSITION INDICATOR, ETC.) ATTACHED TO S/R VALVE NOT DETECTED ON ORIGINAL "AS FURNISHED" VALVE? IF SO, SPECIFY WHAT AND WHEN ATTACHED. REFERENCE TESTS PERFORMED TO VERIFY COMPATIBILITY WITH VALVE PERFORMANCE.

SRVS

MAINTENANCE ACTIVITY (CONT'D.)

PLANT DOCKET # 50-458

PAGE 2 OF 4

S/R VALVE SERIAL NUMBER N63800-00-0039

419. DESCRIPTION OF FAILURE, INCLUDING DETECTION MODE:

N/A

430. DATE REMOVED FROM SERVICE (MO/DA/YR)

"AS FOUND" TESTS PERFORMED PRIOR TO DISASSEMBLY:

434. TEST TYPE CODE (SELECT ONE PER LINE)	435. PARAMETER MEASURED CODE (SELECT ONE PER LINE)	436. 1 NUMERICAL RESULTS OF TESTS - INCLUDE UNITS OR GIVE LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS	437. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____

434. TYPE TEST CODE:

- A. SET POINT TEST - STEAM
- B. SET POINT TEST - N₂ (NITROGEN)
- C. OPERATIONAL RELIEF TEST - STEAM
- D. OPERATIONAL RELIEF TEST - N₂
- E. LEAK TEST - STEAM
- F. LEAK TEST - N₂
- X. OTHER _____

435. PARAMETER MEASURED CODE (SELECT ONE PARAMETER PER TEST. IF MORE THAN ONE PARAMETER IS MEASURED IN A TEST, REPEAT TEST TYPE CODE.)

- A. SET POINTS - LIFT PRESSURE
- B. RESEAT - RECLOSE PRESSURE
- C. VALVE OPENING DELAY TIME -
MANUAL MODE
- D. VALVE OPENING DELAY TIME -
AUTOMATIC MODE
- E. MAIN DISC OPENING STROKE TIME -
MANUAL MODE
- F. MAIN DISC OPENING STROKE TIME -
AUTOMATIC MODE
- G. PILOT STAGE SEAT TIGHTNESS
- H. MAIN STAGE SEAT TIGHTNESS
- J. FLANGED CONNECTION GASKET LEAKAGE
- X. OTHER _____

Q51. What is the maximum length of a string that
we can store in a variable?

- A. ☐ IN SIZE (VALVE REMAINS IN PLACE) ☐ VALVE IS REMOVED FROM SYSTEM (VALVE SIZE REMAINS ON PAGE SIZE)
- B. ☐ IN SIZE (VALVE REMAINS IN PLACE) ☐ VALVE IS REMOVED FROM SYSTEM (VALVE SIZE REMAINS ON PAGE SIZE)
- C. ☒ IN SIZE (VALVE REMAINS IN PLACE) ☐ VALVE IS REMOVED FROM SYSTEM (VALVE SIZE REMAINS ON PAGE SIZE)

Fig. 2. Relationship between the number of eggs and the number of larvae.

- 
 UNIVERSITY OF CALIFORNIA
 DAVIS
 CALIFORNIA 95616-8530

453. CONRADSON, LARSEN, and VERNER.
FACILITY OF GROWTH OF THE
IN THE

- | | |
|------|-------------------------------|
| 711 | CRUSBY VALVE 8 GAGE (O. |
| 716 | PIRRENS |
| 243 | ONE SSER VALVE |
| 242 | GENERAL ELECTRIC COMP |
| 259 | GRAND VALVE (HOT IRON'S CODE) |
| 020 | TARGET LOCK COMP. |
| 1336 | MYLE LABS. |
| | (10000) |

465. Majority name / Revisions
Referring to (Select AS Policy
AS APPLICABLE)

- ACTUATOR STAGES REPLACED
TOPPERS REPLACED WITH ONE OF SAME SETPOINT
ADJ. SET, DISC
MACHINE PILOT VALVE DISC
CLEAN & REMOVE PILOT ASSEMBLIES
SETPOINT ADJUSTING
VALVE INJECT ROSE SIZE INCREASED
SOLENOID ASSEMBLY REMOVED, REINSTALLED
REPAIRING STEAM BLOWDOWN (INFLUE
REPLACE TYPE Ring (1)
REPLACE O-RINGS
REPLACE STEAMHEAD(S)
REPLACE/REPAIR BELLOW
REPLACE/REPAIR GASKET (1)
REPLACE/REPAIR SPRING (1)
OTHER (EXPLAIN IN REMARKS)

955. 456.
OBSERVED DAMAGE/CAUSE OF FAILURE (CHECK AS MANY AS APPLY) IN EACH COLUMN)
NO. 1 BORN 855 AND 456. IF A FAILURE HAS OCCURRED, DO NOT ANSWER 456 IF
NO FAILURE HAS OCCURRED.

REF.	RECEIVED	DATE	CAUSE OF FAILURE / REASON FOR THE DISCONTINUATION OF RESEARCH
455.	RESEARCH DISCONTINUED TO RESEARCH	456.	CAUSE OF FAILURE / REASON FOR THE DISCONTINUATION OF RESEARCH

- PILOT DISC STEAR (USE OR DAMAGED)
PISTON RINGS WORN, DAMAGED
DAMAGE TO SEAL(S)
FOREIGN MATERIAL (DIRT, LUBR) ON/ABOUT SEAL
DAMAGE TO 2ND STAGE PISTON
SET POINT DRIFT - NOT DAMAGE RELATED
DAMAGED SPRINGS(S)
LASTING DEFECTS
OTHER MANUFACTURING DEFECTS
IMPROPER ASSEMBLY OR INSTALLATION, MISSING PARTS
NORMAL WEAR
DRAUGED "O"-RINGS(S) (BEYOND NORMAL WEAR)
DIAPHRAGM(S) DAMAGED
CARBETS(S) WORN BEYOND NORMAL, EXPECTED WEAR
BELLOW(S) DAMAGED, MOIST
BROKEN AIR LINE
VOLTAGE FAILURE
FAILURE OF AIR OPERATOR ASSEMBLY
OTHER (EXPLAIN IN NARRATIVE)
NO DAMAGE REPORT BUT DISCREPANCY IN FAILURE

 460. DETAILS OF OBSERVED DAMAGE / CAUSE OF FAILURE NARRATIVE : |

SRVS

MAINTENANCE ACTIVITY (CONT'D.)

 PLANT DOCKET # 50-458
 S/R VALVE SERIAL NUMBER 63800-00-0039

PAGE 4 OF 4

470. DETAILS OF MAINTENANCE/REFURBISHING NARRATIVE: SCHEDULED REMOVAL AND REPLACEMENT
OF THESE SRV's DURING RF-4. ALL REFURBISHMENT AND
TESTING PERFORMED PRIOR TO INSTALLATION. TESTING
PERFORMED DOCUMENTED ON STP-000-3606 AND STP-202-0602
DATED 9-8-92.

 480. DATE TESTED AFTER REASSEMBLY (Mo/Da/Yr) 9-8-92

481. TEST REPORT NUMBERS FOR POST REASSEMBLY BENCH TESTS:

POST REASSEMBLY BENCH TEST RESULTS (ONLY THOSE WHICH MEASURE PERTINENT PARAMETERS SUCH AS SET POINT, RESEAT PRESSURE, ETC.)

484. TEST TYPE CODE (SELECT ONE PER LINE)	485. PARAMETER MEASURED CODE (SELECT ONE PER LINE)	486. NUMERICAL RESULTS OF TEST - INCLUDE UNITS (OR GIVE LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS)	487. RESULTS OF TEST - "YES" OR "NO"
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			

490. DATE REINSTALLED IN SERVICE (Mo/Da/Yr)

491. COMPONENT ID MARKED VALVE REINSTALLED (OR "S" IF STORED OR "D" IF DISPOSED)

*BEFORE 9-4-92

CODES

484. TYPE TEST CODE:

- A. SET POINT TEST - STEAM
- B. SET POINT TEST - N₂ (INERT)
- C. OPERATIONAL RELIEF TEST - STEAM
- D. OPERATIONAL RELIEF TEST - N₂
- E. LEAK TEST - STEAM
- F. LEAK TEST - N₂
- X. OTHER

485. PARAMETER MEASURED CODE (SELECT ONE PARAMETER PER TEST. IF MORE THAN ONE PARAMETER IS MEASURED IN A TEST, REPEAT TEST TYPE CODE.)

- A. SET POINT - LIFT PRESSURE
- B. RESEAT - RECLOSE PRESSURE
- C. VALVE OPENING DELAY TIME
- D. VALVE OPENING DELAY TIME - PURSUAL MODE
- E. VALVE OPENING DELAY TIME - AUTOMATIC MODE
- F. MAIN BISC OPENING STROKE TIME - MANUAL MODE
- G. MAIN BISC OPENING STROKE TIME - AUTOMATIC MODE
- H. PILOT STAGE SEAT TIGHTNESS
- I. MAIN STAGE SEAT TIGHTNESS
- J. FLANGED CONNECTION GASKET LEAKAGE
- X. OTHER

Prepared by: John Murray
Approved by: SM Doherty

SRVS

MAINTENANCE ACTIVITY

400. PLANT DOCKET #50- 458

PAGE 1 OF 4

NOTE: MUST BE COMPLETED EACH TIME MAINTENANCE IS DONE ON ANY VALVE. INCLUDES ANY RELOCATION OF ANY VALVE.

401. S/R VALVE SERIAL NUMBER N63800-00-011

402. PLANT'S COMMENT ID PRIOR TO MNT. (OR "S" IF FROM STORAGE)

1B21#RVFD41G

403. TYPE OF MAINTENANCE CODE

- ☒ A. SCHEDULED/ROUTINE MAINTENANCE - NO FAILURE REQUIRING MAINTENANCE HAS OCCURRED SINCE LAST MAINTENANCE PERIOD
- ☐ B. NON-IMMEDIATE MAINTENANCE - SCHEDULED FOR NEXT OUTAGE AFTER A NON-CATASTROPHIC FAILURE OCCURRED
- ☐ C. UNSCHEDULED/IMMEDIATE MAINTENANCE - A FAILURE OCCURRED THAT REQUIRED IMMEDIATE MAINTENANCE BE PERFORMED
- ☒ D. VALVE RELOCATION REPORT ONLY - VALVE INSTALLED WITH NO MAINTENANCE PERFORMED.

404. TYPE REPORT

- ☒ A. COMPLETE
- ☐ B. INCOMPLETE - MAINTENANCE DETAILS LATER
- ☐ C. ADDITIONS TO PREVIOUSLY INCOMPLETE REPORT
- ☐ D. REVISIONS TO PREVIOUSLY COMPLETED REPORT

NOTE: FOR C. AND D., ITEMS 401 AND 402 MUST MATCH THOSE ON REPORT TO BE APPENDED.

NOTE: IF MAINTENANCE IS ASSOCIATED WITH ANY FAILURE, COMPLETE ITEMS 410 THROUGH 417. IF NO FAILURE HAS OCCURRED, CONTINUE FROM ITEM 410.

410. DATE OF FAILURE (Mo/Da/Yr)

411. AUTOMATIC PRESSURE SWITCH OPERABLE?

☐ YES OR ☐ NO

412. ELECTRIC POWER SUPPLY AVAILABLE?

☐ YES OR ☐ NO

413. VOLTAGE OF ELECTRIC POWER SUPPLY

414. MODE(S) OF FAILURE DETECTION (CHECK AS MANY AS APPLICABLE)

- ☐ A. TAILPIPE THERMOCOUPLE READING HIGH
- ☐ B. ANNUNCIATOR - TAILPIPE PRESSURE SWITCH
- ☐ C. PANEL INDICATOR LIGHTS
- ☐ D. DROP IN ELECTRICAL OUTPUT
- ☐ E. STEAM-FEED FLOW MISMATCH
- ☐ F. IMBALANCE IN STEAM FLOW AMONG STEAM LINES
- ☐ G. RISE IN SUPPRESSION POOL TEMPERATURE
- ☐ H. RISE IN SUPPRESSION POOL LEVEL
- ☐ I. SLIGHT TRANSIENT DROP IN VESSEL LEVEL
- ☐ J. RADIATION MONITOR(S)
- ☐ K. ACOUSTIC MONITOR(S)
- ☐ L. DIRECT-MOUNTED SRY POSITION INDICATOR
- ☐ M. INDIRECT-MOUNTED SRY POSITION INDICATOR
- ☐ N. OTHER (EXPLAIN IN ITEM 415)

415. TYPE FAILURE (CHECK AS MANY AS APPLICABLE)

- ☐ A. LIFTED PREMATURELY -
- ☐ B. LIFTED BELOW SETPOINT
- ☐ C. LIFTED PAST SETPOINT
- ☐ D. FAILED TO LIFT
- ☐ E. FAILED TO RECLOSE
- ☐ F. FAILED TO FULLY RESEAT (VARIANCE OTHER THAN MINOR)
- ☐ G. INADVERTENT OPENING OF S/R VALVE
- ☐ H. OTHER (EXPLAIN IN ITEM 415)

416. EFFECT OF FAILURE ON PLANT CODE (CHECK ONE ONLY)

- ☐ A. POWER PRODUCTION
- ☐ B. TURBINE TRIP
- ☐ C. MANUAL SCRAM
- ☐ D. AUTOMATIC SCRAM
- ☐ E. EXTENSION OF FOL EXISTING SHUTDOWN
- ☐ F. MANUAL SHUTDOWN
- ☐ G. NO SIGNIFICANT EFFECT

417. TEMP. OF ENVIRONMENT AROUND S/R VALVE (IF AVAILABLE)

"F"

418. WERE THERE ANY ATTACHMENTS (LVDT, POSITION INDICATOR, ETC.) ATTACHED TO S/R VALVE NOT DEPICTED ON ORIGINAL "AS FURNISHED" VALVE? IF SO, SPECIFY WHAT AND WHEN ATTACHED. REFERENCE TESTS PERFORMED TO VERIFY COMPATIBILITY WITH VALVE PERFORMANCE:

SRVS

MAINTENANCE ACTIVITY (CONT'D.)

PLANT DOCKET # 50-458

PAGE 2 OF 4

S/R VALVE SERIAL NUMBER N63800-00-0111

419. DESCRIPTION OF FAILURE, INCLUDING DETECTION MODE:

N/A

430. DATE REMOVED FROM SERVICE (Mo/DA/Yr)

"AS FOUND" TESTS PERFORMED PRIOR TO DISASSEMBLY:

434. TEST TYPE CODE
(SELECT ONE PER
LINE)435. PARAMETER MEASURED
CODE (SELECT ONE
PER LINE)436. 1
NUMERICAL RESULTS OF
TESTS - INCLUDE UNITS
OR GIVE LEAKAGE RATE
OR WRITE "NO LEAK"
FOR LEAKAGE TESTS437.
RESULTS OF TEST
ACCEPTABLE?
"YES" OR "NO"

1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____

434. TYPE TEST CODE:

- A. SET POINT TEST - STEAM
- B. SET POINT TEST - N₂ (NITROGEN)
- C. OPERATIONAL RELIEF TEST - STEAM
- D. OPERATIONAL RELIEF TEST - N₂
- E. LEAK TEST - STEAM
- F. LEAK TEST - N₂
- X. OTHER _____

435. PARAMETER MEASURED CODE (SELECT
ONE PARAMETER PER TEST. IF MORE
THAN ONE PARAMETER IS MEASURED
IN A TEST, REPEAT TEST TYPE CODE.)

- A. SET POINT - LIFT PRESSURE
- B. RESEAT - RECLOSE PRESSURE
- C. VALVE OPENING DELAY TIME -
MANUAL MODE
- D. VALVE OPENING DELAY TIME -
AUTOMATIC MODE
- E. MAIN DISC OPENING STROKE TIME -
MANUAL MODE
- F. MAIN DISC OPENING STROKE TIME -
AUTOMATIC MODE
- G. PILOT STAGE SEAT TIGHTNESS
- H. MAIN STAGE SEAT TIGHTNESS
- J. FLANGED CONNECTION GASKET LEAKAGE
- X. OTHER _____

MS1.
PRAIRIE MARSH 2/19/91 11:30 AM.
PRAIRIE MARSH 2/19/91 11:30 AM.

- | DATE | IN | OUT | IN PLACE | WAVE | REMAINING |
|----------|----|-----|----------|------|-----------|
| 10/1/88 | | | | WAVE | REMAINING |
| 10/2/88 | | | | WAVE | REMAINING |
| 10/3/88 | | | | WAVE | REMAINING |
| 10/4/88 | | | | WAVE | REMAINING |
| 10/5/88 | | | | WAVE | REMAINING |
| 10/6/88 | | | | WAVE | REMAINING |
| 10/7/88 | | | | WAVE | REMAINING |
| 10/8/88 | | | | WAVE | REMAINING |
| 10/9/88 | | | | WAVE | REMAINING |
| 10/10/88 | | | | WAVE | REMAINING |
| 10/11/88 | | | | WAVE | REMAINING |
| 10/12/88 | | | | WAVE | REMAINING |
| 10/13/88 | | | | WAVE | REMAINING |
| 10/14/88 | | | | WAVE | REMAINING |
| 10/15/88 | | | | WAVE | REMAINING |
| 10/16/88 | | | | WAVE | REMAINING |
| 10/17/88 | | | | WAVE | REMAINING |
| 10/18/88 | | | | WAVE | REMAINING |
| 10/19/88 | | | | WAVE | REMAINING |
| 10/20/88 | | | | WAVE | REMAINING |
| 10/21/88 | | | | WAVE | REMAINING |
| 10/22/88 | | | | WAVE | REMAINING |
| 10/23/88 | | | | WAVE | REMAINING |
| 10/24/88 | | | | WAVE | REMAINING |
| 10/25/88 | | | | WAVE | REMAINING |
| 10/26/88 | | | | WAVE | REMAINING |
| 10/27/88 | | | | WAVE | REMAINING |
| 10/28/88 | | | | WAVE | REMAINING |
| 10/29/88 | | | | WAVE | REMAINING |
| 10/30/88 | | | | WAVE | REMAINING |
| 10/31/88 | | | | WAVE | REMAINING |
| 11/1/88 | | | | WAVE | REMAINING |
| 11/2/88 | | | | WAVE | REMAINING |
| 11/3/88 | | | | WAVE | REMAINING |
| 11/4/88 | | | | WAVE | REMAINING |
| 11/5/88 | | | | WAVE | REMAINING |
| 11/6/88 | | | | WAVE | REMAINING |
| 11/7/88 | | | | WAVE | REMAINING |
| 11/8/88 | | | | WAVE | REMAINING |
| 11/9/88 | | | | WAVE | REMAINING |
| 11/10/88 | | | | WAVE | REMAINING |
| 11/11/88 | | | | WAVE | REMAINING |
| 11/12/88 | | | | WAVE | REMAINING |
| 11/13/88 | | | | WAVE | REMAINING |
| 11/14/88 | | | | WAVE | REMAINING |
| 11/15/88 | | | | WAVE | REMAINING |
| 11/16/88 | | | | WAVE | REMAINING |
| 11/17/88 | | | | WAVE | REMAINING |
| 11/18/88 | | | | WAVE | REMAINING |
| 11/19/88 | | | | WAVE | REMAINING |
| 11/20/88 | | | | WAVE | REMAINING |
| 11/21/88 | | | | WAVE | REMAINING |
| 11/22/88 | | | | WAVE | REMAINING |
| 11/23/88 | | | | WAVE | REMAINING |
| 11/24/88 | | | | WAVE | REMAINING |
| 11/25/88 | | | | WAVE | REMAINING |
| 11/26/88 | | | | WAVE | REMAINING |
| 11/27/88 | | | | WAVE | REMAINING |
| 11/28/88 | | | | WAVE | REMAINING |
| 11/29/88 | | | | WAVE | REMAINING |
| 11/30/88 | | | | WAVE | REMAINING |
| 12/1/88 | | | | WAVE | REMAINING |
| 12/2/88 | | | | WAVE | REMAINING |
| 12/3/88 | | | | WAVE | REMAINING |
| 12/4/88 | | | | WAVE | REMAINING |
| 12/5/88 | | | | WAVE | REMAINING |
| 12/6/88 | | | | WAVE | REMAINING |
| 12/7/88 | | | | WAVE | REMAINING |
| 12/8/88 | | | | WAVE | REMAINING |
| 12/9/88 | | | | WAVE | REMAINING |
| 12/10/88 | | | | WAVE | REMAINING |
| 12/11/88 | | | | WAVE | REMAINING |
| 12/12/88 | | | | WAVE | REMAINING |
| 12/13/88 | | | | WAVE | REMAINING |
| 12/14/88 | | | | WAVE | REMAINING |
| 12/15/88 | | | | WAVE | REMAINING |
| 12/16/88 | | | | | |

457. *PLATE 101 E. MACDONALD. 1870. F. 1880. 1881. 1882. 1883. 1884. 1885. 1886. 1887. 1888. 1889. 1890. 1891. 1892. 1893. 1894. 1895. 1896. 1897. 1898. 1899. 1900. 1901. 1902. 1903. 1904. 1905. 1906. 1907. 1908. 1909. 1910. 1911. 1912. 1913. 1914. 1915. 1916. 1917. 1918. 1919. 1920. 1921. 1922. 1923. 1924. 1925. 1926. 1927. 1928. 1929. 1930. 1931. 1932. 1933. 1934. 1935. 1936. 1937. 1938. 1939. 1940. 1941. 1942. 1943. 1944. 1945. 1946. 1947. 1948. 1949. 1950. 1951. 1952. 1953. 1954. 1955. 1956. 1957. 1958. 1959. 1960. 1961. 1962. 1963. 1964. 1965. 1966. 1967. 1968. 1969. 1970. 1971. 1972. 1973. 1974. 1975. 1976. 1977. 1978. 1979. 1980. 1981. 1982. 1983. 1984. 1985. 1986. 1987. 1988. 1989. 1990. 1991. 1992. 1993. 1994. 1995. 1996. 1997. 1998. 1999. 2000. 2001. 2002. 2003. 2004. 2005. 2006. 2007. 2008. 2009. 2010. 2011. 2012. 2013. 2014. 2015. 2016. 2017. 2018. 2019. 2020. 2021. 2022. 2023. 2024. 2025. 2026. 2027. 2028. 2029. 2030. 2031. 2032. 2033. 2034. 2035. 2036. 2037. 2038. 2039. 2040. 2041. 2042. 2043. 2044. 2045. 2046. 2047. 2048. 2049. 2050. 2051. 2052. 2053. 2054. 2055. 2056. 2057. 2058. 2059. 2060. 2061. 2062. 2063. 2064. 2065. 2066. 2067. 2068. 2069. 2070. 2071. 2072. 2073. 2074. 2075. 2076. 2077. 2078. 2079. 2080. 2081. 2082. 2083. 2084. 2085. 2086. 2087. 2088. 2089. 2090. 2091. 2092. 2093. 2094. 2095. 2096. 2097. 2098. 2099. 2100. 2101. 2102. 2103. 2104. 2105. 2106. 2107. 2108. 2109. 2110. 2111. 2112. 2113. 2114. 2115. 2116. 2117. 2118. 2119. 2120. 2121. 2122. 2123. 2124. 2125. 2126. 2127. 2128. 2129. 2130. 2131. 2132. 2133. 2134. 2135. 2136. 2137. 2138. 2139. 2140. 2141. 2142. 2143. 2144. 2145. 2146. 2147. 2148. 2149. 2150. 2151. 2152. 2153. 2154. 2155. 2156. 2157. 2158. 2159. 2160. 2161. 2162. 2163. 2164. 2165. 2166. 2167. 2168. 2169. 2170. 2171. 2172. 2173. 2174. 2175. 2176. 2177. 2178. 2179. 2180. 2181. 2182. 2183. 2184. 2185. 2186. 2187. 2188. 2189. 2190. 2191. 2192. 2193. 2194. 2195. 2196. 2197. 2198. 2199. 2200. 2201. 2202. 2203. 2204. 2205. 2206. 2207. 2208. 2209. 2210. 2211. 2212. 2213. 2214. 2215. 2216. 2217. 2218. 2219. 2220. 2221. 2222. 2223. 2224. 2225. 2226. 2227. 2228. 2229. 2230. 2231. 2232. 2233. 2234. 2235. 2236. 2237. 2238. 2239. 2240. 2241. 2242. 2243. 2244. 2245. 2246. 2247. 2248. 2249. 2250. 2251. 2252. 2253. 2254. 2255. 2256. 2257. 2258. 2259. 2260. 2261. 2262. 2263. 2264. 2265. 2266. 2267. 2268. 2269. 2270. 2271. 2272. 2273. 2274. 2275. 2276. 2277. 2278. 2279. 2280. 2281. 2282. 2283. 2284. 2285. 2286. 2287. 2288. 2289. 2290. 2291. 2292. 2293. 2294. 2295. 2296. 2297. 2298. 2299. 2300. 2301. 2302. 2303. 2304. 2305. 2306. 2307. 2308. 2309. 2310. 2311. 2312. 2313. 2314. 2315. 2316. 2317. 2318. 2319. 2320. 2321. 2322. 2323. 2324. 2325. 2326. 2327. 2328. 2329. 2330. 2331. 2332. 2333. 2334. 2335. 2336. 2337. 2338. 2339. 2340. 2341. 2342. 2343. 2344. 2345. 2346. 2347. 2348. 2349. 2350. 2351. 2352. 2353. 2354. 2355. 2356. 2357. 2358. 2359. 2360. 2361. 2362. 2363. 2364. 2365. 2366. 2367. 2368. 2369. 2370. 2371. 2372. 2373. 2374. 2375. 2376. 2377. 2378. 2379. 2380. 2381. 2382. 2383. 2384. 2385. 2386. 2387. 2388. 2389. 2390. 2391. 2392. 2393. 2394. 2395. 2396. 2397. 2398. 2399. 2400. 2401. 2402. 2403. 2404. 2405. 2406. 2407. 2408. 2409. 2410. 2411. 2412. 2413. 2414. 2415. 2416. 2417. 2418. 2419. 2420. 2421. 2422. 2423. 2424. 2425. 2426. 2427. 2428. 2429. 2430. 2431. 2432. 2433. 2434. 2435. 2436. 2437. 2438. 2439. 2440. 2441. 2442. 2443. 2444. 2445. 2446. 2447. 2448. 2449. 2450. 2451. 2452. 2453. 2454. 2455. 2456. 2457. 2458. 2459. 2460. 2461. 2462. 2463. 2464. 2465. 2466. 2467. 2468. 2469. 2470. 2471. 2472. 2473. 2474. 2475. 2476. 2477. 2478. 2479. 2480. 2481. 2482. 2483. 2484. 2485. 2486. 2487. 2488. 2489. 2490. 2491. 2492. 2493. 2494. 2495. 2496. 2497. 2498. 2499. 2500. 2501. 2502. 2503. 2504. 2505. 2506. 2507. 2508. 2509. 2510. 2511. 2512. 2513. 2514. 2515. 2516. 2517. 2518. 2519. 2520. 2521. 2522. 2523. 2524. 2525. 2526. 2527. 2528. 2529. 2530. 2531. 2532. 2533. 2534. 2535. 2536. 2537. 2538. 2539. 2540. 2541. 2542. 2543. 2544. 2545. 2546. 2547. 2548. 2549. 2550. 2551. 2552. 2553. 2554. 2555. 2556. 255*

- OPERATIONS
PLANT/PERFORMANCE
CONTRIBUTION, LAB.
ON VENTURE

#53. CONTINUATION. LAB. ON VERNON⁴
(CASE 8) Date Oct 5 IF 11114 452
13 2 5

- | | |
|------|-------------------------|
| C711 | CROSBY VALVE & GAGE CO. |
| P167 | PISTONS |
| G203 | DISSESSED VALVE |
| G202 | GENERAL ELECTRIC COMP. |
| 0999 | GRAND VALVE (NEW) MTRDS |
| 1070 | TARGET TON COMP. |
| M335 | MYLE TABS |
| | OTHER: |

[illegible][illegible]

- ACTUATION STAGES REPLACED
TOPMORS REPLACED WITH ONE OF SAME SERVING
REAR SEAL, DISC
MACHINE PILOT VALVE
CLEAR & REMOVE PILOT ASSEMBLY
SERVING ADJUSTING
VALVE TIGHTEN ROSS SIZE INCREASED
SOLENOID ASSEMBLY REMOVED, REINSTALLED
MODIFIED STEAM ELEMENTS UNIT
REPLACE PISTON RING (2)
REPLACE "U"-RING (2)
REPLACE DIAPHRAGM (2)
REPLACE REPAIR BELLOWS
REPLACE REPAIR GASKETS
REPLACE REPAIR SPRINGS (2)
OTHER EXPLAIN IN NARRATIVE

REPLACE (REPAIR) SPRINGS
GTWIN (EXPLAIN) IN MOUNTING

CHOOSE ONE REASON FOR FAILURE (CHECK AS MANY AS APPLICABLE IN EACH COLUMN)
Answer Began 855 and 856. IF A FAILURE HAS OCCURRED, DO NOT ANSWER 856 IF
NO FAILURE HAS OCCURRED.

[illegible]

- PILOT DISC STEAM CUT ON DAMAGED
PISTON RINGS WORN, DAMAGED
DAMAGE TO SEAT(S)
FOREIGN MATERIAL (WIRE, LUGS) ON/UNDER SEAT
DAMAGE TO 2ND STAGE PISTON
SET FORMING WIRE - NOT DAMAGE RELATED
DAMAGED SPRINGS)
CASTING DEFECTS
OTHER MANUFACTURING DEFECTS
IMPROPER ASSEMBLY OR INSTALLATION, MISSING PARTS
NORMAL WEAR
DAMAGED "O" RINGS(S) (BEYOND NORMAL WEAR)
IMPROPERLY DAMAGED
GASKET(S) WORN BEYOND
NORMALLY DAMAGED, WORN
BROKEN AIR LINE
SOLIDIFY FAILURE
FAILURE OF AIR OPERATOR ASSEMBLY
OTHER (EXPLAIN IN NARRATIVE)
NO DAMAGE EXCEPT DIRECTLY RELATING TO FAILURE

NO DAMAGE ACCEPTED FOR DIRECTLY RESULTING FROM THE INFORMATION CONTAINED HEREIN.

6650. DETAILS OF OBSERVED DAMAGE / CAUSE OF FAILURE NARRATIVE :

SRVS

MAINTENANCE ACTIVITY (CONT'D.)

PLANT DOCKET # 50- 458
S/R VALVE SERIAL NUMBER NG 2800-00-011

PAGE 4 OF 4

N70. DETAILS OF MAINTENANCE/REFURBISHING MAINTENANCE: SCHEDULED REMOVAL AND REPLACEMENT OF THESE SRV's DURING RE-4. ALL REFURBISHMENT AND TESTING PERFORMED PRIOR TO INSTALLATION. TESTING PERFORMED DOCUMENTED ON STP-000-3606 AND STP-202-0602 DATED 9-8-92.

N80. DATE TESTED AFTER REASSEMBLY (Mo/Da/Yr) 9-8-92

COPIES

N89. TYPE TEST CODE:

- A. SET POINT TEST - STEAM
- B. SET POINT TEST - N₂ (NITROGEN)
- C. OPERATIONAL RELIEF TEST - STEAM
- D. OPERATIONAL RELIEF TEST - N₂
- E. LEAK TEST - STEAM
- F. LEAK TEST - N₂
- G. OTHER

POST REASSEMBLY BENCH TEST RESULTS (ONLY THOSE WHICH MEASURE PERTINENT PARAMETERS SUCH AS SET POINT, RESEAT PRESSURE, ETC.)

N84. TEST TYPE CODE (SELECT ONE PER LINE)
N85. PARAMETER MEASURED CODE (SELECT ONE PER LINE)
N86. NUMERICAL RESULTS OF TEST - INCLUDE UNITS (OR GIVE LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS)
N87. RESULTS OF TEST - ACCEPTABLE? "YES" OR "NO"

1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				

N90. DATE REINSTALLED IN SERVICE (Mo/Da/Yr)

N91. COMPONENT ID WHERE VALVE REINSTALLED (OR "S" IF STORED OR "D" IF DISPOSED)

* BEFORE 9-4-92

N95. PARAMETER MEASURED CODE (SELECT ONE PARAMETER PER TEST. IF MORE THAN ONE PARAMETER IS MEASURED IN A TEST, REPEAT TEST TYPE CODE.)

- A. SET POINT - LIST PRESSURE
- B. RESEAT - RECLOSURE PRESSURE
- C. VALVE OPENING DELAY TIME
- D. VALVE OPENING DELAY TIME - AUTOMATIC MODE
- E. MAIN DISC OPENING STROKE TIME - MANUAL MODE
- F. MAIN DISC OPENING STROKE TIME - AUTOMATIC MODE
- G. PILOT STAGE SEAT TIGHTNESS
- H. MAIN STAGE SEAT TIGHTNESS
- I. FLANGED CONNECTION GASKET LEAKAGE
- J. OTHER

Prepared by: John Murray
Approved by: G.M. Dolan

NOTE: MUST BE COMPLETED EACH TIME MAINTENANCE IS DONE ON ANY VALVE. INCLUDES ANY RELOCATION OF ANY VALVE.

401. S/R VALVE SERIAL NUMBER N63800-00-0112 402. PLANT'S COMPONENT ID PRIOR TO MAINT. (OR -S- IF FROM STORAGE) 1B21MRVFC414

403. TYPE OF MAINTENANCE CODE

- A. ☒ SCHEDULED/ROUTINE MAINTENANCE - NO FAILURE REQUIRING MAINTENANCE HAS OCCURRED SINCE LAST MAINTENANCE PERIOD
B. ☐ NON-IMMEDIATE MAINTENANCE - SCHEDULED FOR NEXT OUTAGE
C. ☐ AFTER A NON-CATASTROPHIC FAILURE OCCURRED
D. ☐ UNSCHEDULED/IMMEDIATE MAINTENANCE - A FAILURE OCCURRED THAT REQUIRED IMMEDIATE MAINTENANCE BE PERFORMED
E. ☒ VALVE RELOCATION REPORT ONLY - VALVE INSTALLED WITH NO MAINTENANCE PERFORMED.

404. TYPE REPORT
A. ☒ COMPLETE
B. ☐ INCOMPLETE - MAINTENANCE DETAILS LATER
C. ☐ ADDITIONS TO PREVIOUSLY INCOMPLETE REPORT
D. ☐ REVISIONS TO PREVIOUSLY COMPLETED REPORT

NOTE: FOR C. AND D., ITEMS 401 AND 450 MUST MATCH THOSE ON REPORT TO BE AMENDED.

NOTE: IF MAINTENANCE IS ASSOCIATED WITH ANY FAILURE, COMPLETE ITEMS 410 THROUGH 417. IF NO FAILURE HAS OCCURRED, CONTINUE FROM ITEM 450.

410. DATE OF FAILURE (Mo/Da/Yr) _____ 411. AUTOMATIC PRESSURE SWITCH OPERABLE? ☐ YES OR ☐ NO 412. ELECTRIC POWER SUPPLY AVAILABLE? ☐ YES OR ☐ NO

413. VOLTAGE OF ELECTRIC POWER SUPPLY _____

415. MODE(S) OF FAILURE DETECTION (CHECK AS MANY AS APPLICABLE)

- A. ☐ TAILPIPE THERMOCOUPLE READING HIGH
B. ☐ AMMETERATOR - TAILPIPE PRESSURE SWITCH
C. ☐ PANEL INDICATOR LIGHTS
D. ☐ DROP IN ELECTRICAL OUTPUT
E. ☐ STEAM-FEED FLOW MISMATCH
F. ☐ IMBALANCE IN STEAM FLOW AMONG STEAM LINES
G. ☐ RISE IN SUPPRESSION POOL TEMPERATURE
H. ☐ RISE IN SUPPRESSION POOL LEVEL
I. ☐ SIGHT TRANSMIT DROP IN VESSEL LEVEL
J. ☐ RADIATION MONITOR(S)
K. ☐ ACOUSTIC MONITOR(S)
L. ☐ DIRECT-MOUNTED SRY POSITION INDICATOR
M. ☐ INDIRECT-MOUNTED SRY POSITION INDICATOR
N. ☐ OTHER (EXPLAIN IN ITEM 419)

414. TYPE FAILURE (CHECK AS MANY AS APPLICABLE)

- A. ☐ LIFTED PREMATURELY -
B. ☐ LIFTED BELOW SETPOINT
C. ☐ LIFTED PAST SETPOINT
D. ☐ FAILED TO LIFT
E. ☐ FAILED TO RECLOSE
F. ☐ FAILED TO FULLY RESEAT
G. ☐ CARTRIDGE (OTHER THAN MINIM)
H. ☐ INADVERTENT OPENING OF S/R VALVE
I. ☐ OTHER (EXPLAIN IN ITEM 419)

416. EFFECT OF FAILURE ON PLANT CODE (CHECK ONE ONLY)

- A. ☐ POWER REDUCTION
B. ☐ TURBINE TRIP
C. ☐ MANUAL SCRAM
D. ☐ AUTOMATIC SCRAM
E. ☐ EXTENSION OF FIRE EXISTING
F. ☐ SHUTDOWN
G. ☐ MANUAL SHUTDOWN
H. ☐ NO SIGNIFICANT EFFECT

417. TEMP. OF ENVIRONMENT AROUND S/R VALVE (IF AVAILABLE)

418. WERE THERE ANY ATTACHMENTS (LVD, POSITION INDICATOR, ETC.) ATTACHED TO S/R VALVE NOT DEPICTED ON ORIGINAL "AS FURNISHED" VALVE? IF SO, SPECIFY WHAT AND WHEN ATTACHED. REFERENCE TESTS PERFORMED TO VERIFY COMPATIBILITY WITH VALVE PERFORMANCE:

SRVS

MAINTENANCE ACTIVITY (CONT'D.)

PLANT DOCKET # 50-458

PAGE 2 OF 4

S/R VALVE SERIAL NUMBER N163800-00-0112

419. DESCRIPTION OF FAILURE, INCLUDING DETECTION MODE: N/A

420. DATE REMOVED FROM SERVICE (Mo/Da/Yr) _____

"As Found" Tests Performed Prior to Disassembly:

421. TEST TYPE CODE (SELECT ONE PER LINE)	422. PARAMETER MEASURED (CODE - SELECT ONE PER LINE)	423. NUMERICAL RESULTS OF TESTS - INCLUDE UNITS OR GIVE LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS	424. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____

425. TYPE TEST CODE:

- A. SET POINT TEST - STEAM
- B. SET POINT TEST - H₂ (NITROGEN)
- C. OPERATIONAL RELIEF TEST - STEAM
- D. OPERATIONAL RELIEF TEST - H₂
- E. LEAK TEST - STEAM
- F. LEAK TEST - H₂
- G. OTHER

426. PARAMETER MEASURED CODE (SELECT ONE PARAMETER PER TEST. IF MORE THAN ONE PARAMETER IS MEASURED IN A TEST, REPEAT TEST TYPE CODE.)

- A. SET POINT - LIFT PRESSURE
- B. RESET - RECLOSE PRESSURE
- C. VALVE OPENING DELAY TIME - MANUAL MODE
- D. VALVE OPENING DELAY TIME - AUTOMATIC MODE
- E. MAIN DISC OPENING STROKE TIME - MANUAL MODE
- F. MAIN DISC OPENING STROKE TIME - AUTOMATIC MODE
- G. PILOT STAGE SEAT TIGHTNESS
- H. MAIN STAGE SEAT TIGHTNESS
- I. FLANGED CONNECTION GASKET LEAKAGE
- J. OTHER

451. MAINTENANCE/REFURBISHING PERFORMED WHERE? (CHECK ONE)

- A. ☐ IN-SITU (VALVE REMAINS IN PLACE)
- B. ☐ ON-SITE (VALVE IS REMOVED FROM INSTAL-LATION BUT REMAINS ON PLANT SITE)
- C. ☒ OFF-SITE

452. MAINTENANCE/REFURBISHING PERFORMED BY WHOM? (CHECK ONE)

- A. ☐ OPERATIONS
- B. ☐ MAINTENANCE
- C. ☒ CONTRACTOR, LAB, OR VENDOR

453. CONTRACTOR, LAB, OR VENDOR? (CHECK ONE ONLY IF ITEM 452 IS "C")

- ☒ CROSBY VALVE & GAGE CO.
- ☐ BIERER
- ☐ DRESSER VALVE
- ☐ GENERAL ELECTRIC CORP.
- ☐ ORAND VALVE (NOT HTRDS CODE)
- ☐ TARGET TOOL CORP.
- ☐ WYLE LABS
- ☐ OTHER:

454. DETAILS OF OBSERVED DAMAGE/CAUSE OF FAILURE NARRATIVE:

455. OBSERVED DAMAGE/CAUSE OF FAILURE (CHECK AS MANY AS APPLICABLE IN EACH COLUMN) ANSWER BOTH 455 AND 456. IF A FAILURE HAS OCCURRED. DO NOT ANSWER 456 IF NO FAILURE HAS OCCURRED.	456. CAUSE OF FAILURE/ DAMAGE RESULTING FROM FAILURE (IF FAILURE HAS OCCURRED)
A. <input type="checkbox"/>	A. <input type="checkbox"/> PILOT DISC STEAM CUT OR DAMAGED
B. <input type="checkbox"/>	B. <input type="checkbox"/> PISTON RINGS BOW, DAMAGED
C. <input type="checkbox"/>	C. <input type="checkbox"/> FOREIGN MATERIAL (DIRT, LUD) ON/UNDER SEAT
D. <input type="checkbox"/>	D. <input type="checkbox"/> DAMAGE TO 2ND STAGE PISTON
E. <input type="checkbox"/>	E. <input type="checkbox"/> SET POINT INEPT - NOT DAMAGE RELATED
F. <input type="checkbox"/>	F. <input type="checkbox"/> DAMAGED SPRINGS
G. <input type="checkbox"/>	G. <input type="checkbox"/> CASTING DEFECTS
H. <input type="checkbox"/>	H. <input type="checkbox"/> OTHER MANUFACTURING DEFECTS
I. <input type="checkbox"/>	I. <input type="checkbox"/> IMPROPER ASSEMBLY OR INSTALLATION, MISSING PARTS
J. <input type="checkbox"/>	J. <input type="checkbox"/> NORMAL WEAR
K. <input type="checkbox"/>	K. <input type="checkbox"/> DAMAGED "U"-HINGES (BEYOND ORIGINAL WEAR)
L. <input type="checkbox"/>	L. <input type="checkbox"/> DIAPHRAGM(S) DAMAGED
M. <input type="checkbox"/>	M. <input type="checkbox"/> GASKET(S) WORN BEYOND NORMAL, EXPECTED WEAR
N. <input type="checkbox"/>	N. <input type="checkbox"/> BELLOW(S) DAMAGED, MOIN
O. <input type="checkbox"/>	O. <input type="checkbox"/> BROKEN AIR LINE
P. <input type="checkbox"/>	P. <input type="checkbox"/> SOLENOID FAILURE
Q. <input type="checkbox"/>	Q. <input type="checkbox"/> FAILURE OF AIR OPERATOR ASSEMBLY
R. <input type="checkbox"/>	R. <input type="checkbox"/> OTHER (EXPLAIN IN NARRATIVE)
S. <input type="checkbox"/>	S. <input type="checkbox"/> NO DAMAGE (EXCEPT THAT DIRECTLY RELATING TO FAILURE)

455. MAINTENANCE/REFURBISHING PERFORMED (SELECT AS MANY AS APPLICABLE)

- ☒ ACTUATION SPACES REPLACED
- ☐ TOPWORKS REPLACED WITH ONE OF SAME SETPOINT
- ☐ REAP SEAT, DISC
- ☐ MACHINE PILOT VALVE DISC
- ☐ CLEAN & REWORK PILOT ASSEMBLES
- ☐ SETPOINT ADJUSTMENT
- ☐ VALVE THROAT BORE SIZE INCREASED
- ☐ SOLENOID ASSEMBLY REMOVED, REINSTALLED
- ☐ REPAIR/REPAIR BELLOW(S)
- ☐ REPLACE PISTON RINGS
- ☐ REPLACE "U"-HINGES
- ☐ REPLACE DIAPHRAGM(S)
- ☐ REPLACE/REPAIR BELLOW(S)
- ☐ REPLACE/REPAIR GASKET(S)
- ☐ REPLACE/REPAIR SPRINGS
- ☐ OTHER (EXPLAIN IN NARRATIVE)

SRVS

MAINTENANCE ACTIVITY (CONT'D.)

PLANT DOCKET # 50-458
S/R VALVE SERIAL NUMBER N63800-00-0112

PAGE # OF 4

N70. DETAILS OF MAINTENANCE/REFINISHING NARRATIVE: SCHEDULED REMOVAL AND REPLACEMENT OF THESE SRV'S DURING RF-4. ALL REFURBISHMENT AND TESTING PERFORMED PRIOR TO INSTALLATION. TESTING PERFORMED DOCUMENTED ON STP-000-3606 AND STP-202-0602 DATED 9-8-92.

N80. DATE TESTED AFTER REASSEMBLY (Mo/Da/Yr) 9-8-92

N81. TEST REPORT NUMBERS FOR POST REASSEMBLY BENCH TESTS:

POST REASSEMBLY BENCH TEST RESULTS (ONLY THOSE WHICH MEASURE PERTINENT PARAMETERS SUCH AS SET POINT, RESEAT PRESSURE, ETC.)

N84. TEST TYPE CODE (SELECT ONE PER LINE)	N85. PARAMETER MEASURED CODE (SELECT ONE PER LINE)	N86. NUMERICAL RESULTS OF TEST - INCLUDE UNITS FOR GIVE LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS	N87. RESULTS OF TEST - ACCEPTABLE? "YES" OR "NO"
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			

N90. DATE REINSTALLED IN SERVICE (Mo/Da/Yr)

N91. COMPONENT ID WHERE VALVE REINSTALLED (FOR "S" IF STORED OR "D" IF DISPOSED)

* BEFORE 9-4-92

CODES

N84. TYPE TEST CODE:

- A. SET POINT TEST - STEAM
- B. SET POINT TEST - N₂ (INERTIGEN)
- C. OPERATIONAL RELIEF TEST - STEAM
- D. OPERATIONAL RELIEF TEST - N₂
- E. LEAK TEST - STEAM
- F. LEAK TEST - N₂
- X. OTHER

N85.

PARAMETER MEASURED CODE (SELECT ONE PARAMETER PER TEST. IF MORE THAN ONE PARAMETER IS MEASURED IN A TEST, REPEAT TEST TYPE CODE.)

- A. SET POINT - LIFT PRESSURE
- B. RESEAT - RECLOSE PRESSURE
- C. VALVE OPENING DELAY TIME
- D. MANUAL MODE
- E. VALVE OPENING DELAY TIME
- F. AUTOMATIC MODE
- G. MAIN BISC OPENING STROKE TIME
- H. MANUAL MODE
- I. AUTOMATIC MODE
- J. PILOT STAGE SEAT TIGHTNESS
- K. MAIN STAGE SEAT TIGHTNESS
- L. FLANGED CONNECTION GASKET LEAKAGE
- X. OTHER

Prepared by: John Murray
Approved by: G.M. Delaney

SRVS 1000, PLANT DOCKET #50- 458

NOTE: MUST BE COMPLETED EACH TIME MAINTENANCE IS DONE ON ANY VALVE. INCLUDES ANY RELOCATION OF ANY VALVE.

401. S/R VALVE SERIAL NUMBER N63800-00-0077
402. PLANT'S COMPONENT ID PRIOR TO MAINT. (ON -S- IF FROM STORAGE) 1821ARVFD47A

403. TYPE OF MAINTENANCE CODE

- A. ☒ SCHEDULED/ROUTINE MAINTENANCE - NO FAILURE REQUIRING MAINTENANCE HAS OCCURRED SINCE LAST MAINTENANCE PERIOD
B. ☐ NON-IMMEDIATE MAINTENANCE - SCHEDULED FOR NEXT OUTAGE
C. ☐ AFTER A NON-CATASTROPHIC FAILURE OCCURRED
D. ☒ UNSCHEDULED/IMMEDIATE MAINTENANCE - A FAILURE OCCURRED THAT REQUIRED IMMEDIATE MAINTENANCE BE PERFORMED
E. ☐ VALVE RELOCATION REPORT ONLY - VALVE INSTALLED WITH NO MAINTENANCE PERFORMED

404. TYPE REPORT

- A. ☒ COMPLETE
B. ☐ INCOMPLETE MAINTENANCE DETAILS LATER
C. ☐ ADDITIONS TO PREVIOUSLY INCOMPLETE REPORT
D. ☐ REVISIONS TO PREVIOUSLY COMPLETED REPORT
NOTE: FOR C, AND D, ITEMS 401 AND 402 MUST MATCH THOSE ON REPORT TO BE APPROVED.

NOTE: IF MAINTENANCE IS ASSOCIATED WITH ANY FAILURE, COMPLETE ITEMS 410 THROUGH 417. IF NO FAILURE HAS OCCURRED, CONTINUE FROM ITEM 420.

410. DATE OF FAILURE (Mo/Da/Yr) 411. AUTOMATIC PRESSURE SWITCH OPERABLE? ☐ YES OR ☐ NO
412. ELECTRIC POWER SUPPLY AVAILABLE? ☐ YES OR ☐ NO

413. VOLTAGE OF ELECTRIC POWER SUPPLY

415. MODE(S) OF FAILURE DETECTION (CHECK AS MANY AS APPLICABLE)

- A. ☐ TAILPIPE THERMOCOUPLE READING HIGH
B. ☐ ANNUNCIATOR - TAILPIPE PRESSURE SWITCH
C. ☐ PANEL INDICATOR LIGHTS
D. ☐ DROP IN ELECTRICAL OUTPUT
E. ☐ STEAM-FEED FLOW MISMATCH
F. ☐ IMBALANCE IN STEAM FLOW AMONG STEAM LINES
G. ☐ RISE IN SUPPRESSION POOL TEMPERATURE
H. ☐ RISE IN SUPPRESSION POOL LEVEL
I. ☐ SLIGHT TRANSIENT DROP IN VESSEL LEVEL
J. ☐ RADIATION MONITOR(S)
K. ☐ ACOUSTIC MONITOR(S)
L. ☐ DIRECT-MOUNTED SVI POSITION INDICATOR
M. ☐ INDIRECT-MOUNTED SVI POSITION INDICATOR
N. ☐ OTHER (EXPLAIN IN ITEM 419)

414. TYPE FAILURE (CHECK AS MANY AS APPLICABLE)

- A. ☐ LIFTED PREMATURELY -
B. ☐ LIFTED BELOW SETPOINT
C. ☐ LIFTED PART SETPOINT
D. ☐ FAILED TO LIFT
E. ☐ FAILED TO RECLOSE
F. ☐ FAILED TO FULLY RESEAT
G. ☐ LEAKAGE (OTHER THAN MINOR)
H. ☐ INADVERTENT OPENING OF S/R VALVE
I. ☐ OTHER (EXPLAIN IN ITEM 419)

416. EFFECT OF FAILURE ON PLANT CODE (CHECK ONE ONLY)

- A. ☐ POWER REDUCTION
B. ☐ TURBINE TRIP
C. ☐ MANUAL SCRAM
D. ☐ AUTOMATIC SCRAM
E. ☐ EXTENSION OF THE EXISTING SHUTDOWN
F. ☐ MANUAL SHUTDOWN
G. ☐ NO SIGNIFICANT EFFECT

417. TIME OF ENVIRONMENT AROUND S/R VALVE (IF AVAILABLE)

418. WERE THERE ANY ATTACHMENTS (LVDI, POSITION INDICATOR, ETC.) ATTACHED TO S/R VALVE NOT DEPICTED ON ORIGINAL "AS FURNISHED" VALVE? IF SO, SPECIFY WHAT AND WHEN ATTACHED. REFERENCE TESTS PERFORMED TO VERIFY COMPATIBILITY WITH VALVE PERFORMANCE:

S/R VALVE SERIAL NUMBER N63800-00-0897

412. Description of Failure, Including Detection Point:

630. HAVE REMOVED FROM SERVICE (Pho/Dia/Van)

"As Found" Tests Performed Prior to Disassembly:

934.	TEST LIVE CODE (SELECT ONE PER LINE)	1. _____	2. _____	3. _____	4. _____	5. _____	6. _____	7. _____	8. _____
935.	PARAMETER MEASURED CODE (SELECT ONE PER LINE)	1. _____	2. _____	3. _____	4. _____	5. _____	6. _____	7. _____	8. _____
936.	NUMERICAL DESIGN OF TESTS - INCLUDE UNITS ON GIVE LEASE RATE OR STATE NO LEASE FOR LEASE TESTS	1. _____	2. _____	3. _____	4. _____	5. _____	6. _____	7. _____	8. _____
937.	RESULTS OF TEST ACCEPTABLE? 2 "YES" OR "NO"	1. _____	2. _____	3. _____	4. _____	5. _____	6. _____	7. _____	8. _____

450. Type test code:

- [illegible]

035. Parameter Measured Core (Select One Parameter per Test, If More Than One Parameter Is Measured in A Test, Repeat Test and Cont.)

- | | | |
|----|----------------------------------|------------------|
| A. | Set Point - | LIFT PRESSURE |
| B. | Reset - | Reclose Pressure |
| C. | Valve Opening Delay Time - | Manual Mode |
| D. | Valve Opening Delay Time - | Automatic Mode |
| E. | Main Disc Opening Stroke Time - | Manual Mode |
| F. | Main Disc Opening Stroke Time - | Automatic Mode |
| G. | Pilot Stage Seat Tightness | |
| H. | Main Stage Seat Tightness | |
| I. | Planned Correction Gas/Vol Leaks | |
| J. | Other | |

451. MAINTENANCE/REFURBISHING
PERFORMED WHILE IN (CHECK ONE)

- A. ☐ IN PLACE VALVE REMAINS
B. ☐ ON-SITE VALVE IS
REMOVED FROM INSTAL-
LATION BUT REMAINS
ON PLANT SITE
C. ☒ OFF-SITE

452. MAINTENANCE/REFURBISHING
PERFORMED BY WHOM?
(CHECK ONE)

- A. ☐ OPERATIONS
B. ☒ MAINTENANCE
C. ☐ CONTRACTOR, LAB,
OR VENDOR

453. CONTRACTOR, LAB, OR VENDOR
(CHECK ONE ONLY IF ITEM 452
IS "C")

- C711 CROSSBY VALVE & GAGE CO.
B167 DRESSER
B793 DRESSER VALVE
G082 GENERAL ELECTRIC CORP.
G999 GEM VALVE (NOT HIRDS CODE)
T020 TARGET LOCK CORP.
H356 WYLE LABS
OTHER:

465. MAINTENANCE/REFURBISHING
PERFORMED (SELECT AS MANY
AS APPLICABLE)

- A. ☐ ACTUATION STAGES REPLACED
B. ☐ TOPWORN REPLACED WITH ONE OF SAME SETPOINT
C. ☐ RELAP SEAT, DISC
D. ☐ MACHINE PILOT VALVE DISC
E. ☐ CLEAN & REWORK PILOT ASSEMBLIES
F. ☐ SETPOINT ADJUSTMENT
G. ☒ VALVE IMPACT BORE SIZE INCREASED
H. ☐ SOLENOID ASSEMBLY REMOVED, REINSTALLED
I. ☐ PORFITE STEAM BLOWDOWN (WHILE
REPLACE PISTON RINGS)
J. ☐ REPLACE "U"-RINGS
K. ☐ REPLACE DIAPHRAGM(S)
L. ☐ REPLACE/REPAIR BELLOW
M. ☐ REPLACE/REPAIR GASKET(S)
N. ☐ REPLACE/REPAIR SPRING(S)
OTHER (EXPLAIN IN NARRATIVE)

455. 456. OBSERVED DAMAGE/CAUSE OF FAILURE (CHECK AS MANY AS APPLICABLE IN EACH COLUMN)
ANSWER BOTH 455, AND 456. IF A FAILURE HAS OCCURRED. DO NOT ANSWER 456 IF
NO FAILURE HAS OCCURRED.

455. OBSERVED
DAMAGE
RESULTING
FROM
FAILURE
IF
FAILURE
HAS
OCCURRED

456. CAUSE OF FAILURE/
DAMAGE
RESULTING
FROM
FAILURE
IF
FAILURE
HAS
OCCURRED

A. ☐ PILOT DISC STEAM CUT OR DAMAGED
B. ☐ PISTON RINGS WORN, DAMAGED
C. ☐ DAMAGE TO SEAT(S)
D. ☐ FOREIGN MATERIAL (MUD, LUB) ON/UNDER SEAT
E. ☐ DAMAGE TO 2ND STAGE PISTON
F. ☐ SET POINT DEFECT - NOT DAMAGE RELATED
G. ☐ DAMAGED SPRING(S)
H. ☐ CASTING DEFECTS
I. ☐ OTHER MANUFACTURING DEFECTS
J. ☐ IMPROPER ASSEMBLY OR INSTALLATION, MISSING PARTS
K. ☐ NORMAL WEAR
L. ☐ DAMAGED "U"-RINGS (BEYOND NORMAL WEAR)
M. ☐ DIAPHRAGM(S) DAMAGED
N. ☐ GASKET(S) WORN BEYOND NORMAL, EXPECTED WEAR
O. ☐ BELLOW(S) DAMAGED, WORN
P. ☐ BROKEN AIR LINE
Q. ☐ SOLENOID FAILURE
R. ☐ FAILURE OF AIR OPERATOR ASSEMBLY
S. ☐ OTHER (EXPLAIN IN NARRATIVE)
T. ☐ NO DAMAGE EXCEPT THAT DIRECTLY RELATING TO FAILURE

A. ☐ PILOT DISC STEAM CUT OR DAMAGED
B. ☐ PISTON RINGS WORN, DAMAGED
C. ☐ DAMAGE TO SEAT(S)
D. ☐ FOREIGN MATERIAL (MUD, LUB) ON/UNDER SEAT
E. ☐ DAMAGE TO 2ND STAGE PISTON
F. ☐ SET POINT DEFECT - NOT DAMAGE RELATED
G. ☐ DAMAGED SPRING(S)
H. ☐ CASTING DEFECTS
I. ☐ OTHER MANUFACTURING DEFECTS
J. ☐ IMPROPER ASSEMBLY OR INSTALLATION, MISSING PARTS
K. ☐ NORMAL WEAR
L. ☐ DAMAGED "U"-RINGS (BEYOND NORMAL WEAR)
M. ☐ DIAPHRAGM(S) DAMAGED
N. ☐ GASKET(S) WORN BEYOND NORMAL, EXPECTED WEAR
O. ☐ BELLOW(S) DAMAGED, WORN
P. ☐ BROKEN AIR LINE
Q. ☐ SOLENOID FAILURE
R. ☐ FAILURE OF AIR OPERATOR ASSEMBLY
S. ☐ OTHER (EXPLAIN IN NARRATIVE)
T. ☐ NO DAMAGE EXCEPT THAT DIRECTLY RELATING TO FAILURE

460. DETAILS OF OBSERVED DAMAGE/CAUSE OF FAILURE NARRATIVE:

SRVS

MAINTENANCE ACTIVITY (CONT'D.)

PLANT DOCKET # 50-458
S/R VALVE SERIAL NUMBER N63800-00-0097

NOTE: DETAILS OF MAINTENANCE/REFINISHING NARRATIVE: SCHEDULED REMOVAL AND REPLACEMENT OF THESE SRV'S DURING RF-4. ALL REFURBISHMENT AND TESTING PERFORMED PRIOR TO INSTALLATION. TESTING PERFORMED DOCUMENTED ON SIP-000-3606 AND SIP-202-0602 DATED 9-8-92.

880. DATE TESTED AFTER REASSEMBLY (Mo/Da/Yr)		881. TEST REPORT NUMBERS FOR POST REASSEMBLY BENCH TESTS:	
9-8-92			
POST REASSEMBLY BENCH TEST RESULTS (ONLY THOSE WHICH MEASURE PERTINENT PARAMETERS SUCH AS SET POINT, RESET PRESSURE, ETC.)			
884. TEST TYPE CODE (SELECT ONE PER LINE)	885. PARAMETER MEASURED CODE (SELECT ONE PER LINE)	886. NUMERICAL RESULTS OF TEST INCLUDE UNITS (OR GIVE LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS)	887. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			

889. TYPE TEST CODE:	
A.	SET POINT TEST - STEAM
B.	SET POINT TEST - N ₂ (NITROGEN)
C.	OPERATIONAL RELIEF TEST - STEAM
D.	OPERATIONAL RELIEF TEST - N ₂
E.	LEAK TEST - STEAM
F.	LEAK TEST - N ₂
X.	OTHER

895. PARAMETER MEASURED CODE (SELECT ONE PARAMETER PER TEST. IF MORE THAN ONE PARAMETER IS MEASURED IN A TEST, REPEAT TEST TYPE CODE.)	
A.	SET POINT - LIFT PRESSURE
B.	RESET - RECLOSE PRESSURE
C.	VALVE OPENING DELAY TIME
D.	VALVE CLOSING DELAY TIME
E.	VALVE OPENING DELAY TIME
F.	VALVE CLOSING DELAY TIME
G.	MAIN DISC OPENING STROKE TIME
H.	MAIN DISC CLOSING STROKE TIME
I.	PILOT STAGE SEAT TIGHTNESS
J.	PILOT STAGE SEAT TIGHTNESS
K.	PLANNED CORRECTION GASKET LEAKAGE
X.	OTHER

890. DATE REINSTALLED IN SERVICE (Mo/Da/Yr)		891. COMPONENT ID WHEN VALVE REINSTALLED (OR "5" IF STORED OR "D" IF DISPOSED)	
* BEFORE 9-4-92			

Prepared by: John Murray
Approved by: Sam Delaney

SRVS

MAINTENANCE ACTIVITY

400, PLANT DOCKET #50

458

PAGE 1 OF 4

NOTE: MUST BE COMPLETED EACH TIME MAINTENANCE IS DONE ON ANY VALVE. INCLUDES ANY RELOCATION OF ANY VALVE.

401. S/R VALVE SERIAL NUMBER N63800-00-0100

402. PLANT'S COMPONENT ID PRIOR TO MAINT. (OR "S" IF FROM STORAGE) 1B21*RVF047B

403. TYPE OF MAINTENANCE CODE

- A. ☒ SCHEDULED/ROUTINE MAINTENANCE - NO FAILURE REQUIRING MAINTENANCE HAS OCCURRED SINCE LAST MAINTENANCE PERIOD
B. ☐ NON-IMMEDIATE MAINTENANCE - SCHEDULED FOR NEXT OUTAGE AFTER A NON-CATASTROPHIC FAILURE OCCURRED
C. ☐ IMMEDIATE/IMMEDIATE MAINTENANCE - A FAILURE OCCURRED THAT REQUIRED IMMEDIATE MAINTENANCE BE PERFORMED
D. ☒ VALVE RELOCATION REPORT ONLY - VALVE INSTALLED WITH NO MAINTENANCE PERFORMED

404. TYPE REPORT

- A. ☒ COMPLETE
B. ☐ INCOMPLETE - MAINTENANCE DETAILS LATER
C. ☐ ADDITIONS TO PREVIOUSLY INCOMPLETE REPORT
D. ☐ REVISIONS TO PREVIOUSLY COMPLETED REPORT

NOTE: FOR C. AND D., ITEMS 401 AND 402 MUST MATCH THOSE ON REPORT TO BE APPENDED.

NOTE: IF MAINTENANCE IS ASSOCIATED WITH ANY FAILURE, COMPLETE ITEMS 410 THROUGH 419. IF NO FAILURE HAS OCCURRED, CONTINUE FROM ITEM 420.

410. DATE OF FAILURE (Mo/Da/Yr)

411. AUTOMATIC PRESSURE SWITCH OPERABLE?

☐ Yes on ☐ No

412. ELECTRIC POWER SUPPLY AVAILABLE?

☐ Yes on ☐ No

413. VOLTAGE OF ELECTRIC POWER SUPPLY

415. MODE(S) OF FAILURE DETECTION (CHECK AS MANY AS APPLICABLE)

416. EFFECT OF FAILURE ON PLANT CODE (CHECK ONE ONLY)

- A. ☐ POWER REDUCTION
B. ☐ TUBING TRIP
C. ☐ MANUAL SCRAM
D. ☐ EXTENSION OF PRE-EXISTING SHUTDOWN
E. ☐ MANUAL SHUTDOWN
F. ☐ NO SIGNIFICANT EFFECT

- A. ☐ IF FID PRELIMINARILY -
B. ☐ IF FID BELOW SETPOINT
C. ☐ IF FID PA-1 SETPOINT
D. ☐ FAILED TO LIST
E. ☐ FAILED TO RECLOSE
F. ☐ FAILED TO FULLY RESEAT
G. ☐ LEAKAGE (OTHER THAN NINON)
H. ☐ INADEQUATE OPENING OF S/R VALVE
I. ☐ OTHER (EXPLAIN IN ITEM 419)

- A. ☐ FAILPIPE THERMOCOUPLE READING HIGH
B. ☐ ANNUNCIATOR - FAILPIPE PRESSURE SWITCH
C. ☐ PANEL INDICATOR LIGHTS
D. ☐ DROP IN ELECTRICAL OUTPUT
E. ☐ STEAM-FEED FLOW MISMATCH
F. ☐ IMBALANCE IN STEAM FLOW AMONG STEAM LINES
G. ☐ RISE IN SUPPRESSION POOL TEMPERATURE
H. ☐ RISE IN SUPPRESSION POOL LEVEL
I. ☐ SLIGHT TRANSIENT DROP IN VESSEL LEVEL
J. ☐ RADIATION MONITOR(S)
K. ☐ ACOUSTIC MONITOR(S)
L. ☐ DIRECT-MONITORED SRY POSITION INDICATOR
M. ☐ INDIRECTLY-MONITORED SRY POSITION INDICATOR
N. ☐ OTHER (EXPLAIN IN ITEM 419)

417. TEMP. OF ENVIRONMENT AROUND S/R VALVE (IF AVAILABLE)

418. WERE THERE ANY ATTACHMENTS (LVD, POSITION INDICATOR, ETC...) ATTACHED TO S/R VALVE NOT DEPICTED ON ORIGINAL "AS FURNISHED" VALVE? IF SO, SPECIFY NAME AND WHEN ATTACHED. REFERENCE TESTS PERFORMED TO VERIFY COMPATIBILITY WITH VALVE PERFORMANCE.

619. DESCRIPTION OF FAILURE. INCLUDING DEVIATION FROM:

Date Received From Service (DD/MM/YY)

"As Found" Tests Performed Prior to Disassembly:

Q36. TEST TYPE CODE (SELECT ONE PER LINE)	Q35. PARAMETER PRE-SELECTED CODE (SELECT ONE PER LINE)	Q37. NUMERICAL RESULTS OF TESTS - INCLUDE ONLY ONE GIVE LEASE RATE OR WHITE NO LEASE FOR LEASE TESTS	Q37. RESULTS OF TEST ACCEPTABILITY -YES- OR -NO-
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			

630. Type Test Code :

- | 項目 | 単位 | 数量 | 金額 | 備考 |
|-----|----|-----|-----|----|
| 材料費 | 円 | 100 | 100 | |
| 労務費 | 円 | 200 | 200 | |
| 経費 | 円 | 50 | 50 | |
| 合計 | 円 | 350 | 350 | |

035. Parameter Passed Code 151 test
One Parameter in a test. It None
than One Parameter is Passed as
in a test, Repeat test code.

- | | |
|----|---|
| A. | SET POINT - LIFT PRESSURE |
| B. | RESET - RECLOSURE PRESSURE |
| C. | VALVE OPENING DELAY TIME
Manual Mode |
| D. | VALVE OPENING DELAY TIME
Automatic Mode |
| E. | MAIN DISC OPENING STROKE TIME
Manual Mode |
| F. | MAIN DISC OPENING STROKE TIME
Automatic Mode |
| G. | PILOT STAGE SEAT TIGHTNESS |
| H. | MAIN STAGE SEAT TIGHTNESS |
| I. | FLANGED CONNECTION GASKET LEAKAGE |
| J. | OTHER |

ACTUATION STAGES REPLACED
TOWERS REPLACED WITH ONE OF SAME SETPOINT
REPL. VAL. DISC
MACHINE
PILOT VALVE DISC
CLEAN & REMOVB PILOT ASSEMBLIES
SETPOINT ADJUSTMENT
VALVE INPORT BORE SIZE INCREASED
SOLWID ASSEMBLY REMOVED, BEING FAILED
RECRIFIC STEAM BLOWDOWN UNIFICE
REPLACE (STEADY RINGS)
REPLACE (W - RINGS)
REPLACE DIAPHRAGMS
REPLACE/REPAIR BELLOW
REPLACE/REPAIR GASKET (I)
REPLACE/REPAIR GASKET (I)
REPLACE/REPAIR SPRING (I)
OTHER (EXPLAIN IN NARRATIVE)

660. DETAILS OF OBSERVED DAMAGE/CAUSE OF FAILURE NARRATIVE:

SRVS

MAINTENANCE ACTIVITY (CONT'D.):

PLANT DOCKET # 50-458
PAGE 4 OF 4
S/R VALVE SERIAL NUMBER N63800-00-0100

470. DETAILS OF MAINTENANCE/REFINISHING NARRATIVE: SCHEDULED REMOVAL AND REPLACEMENT OF THESE SRV'S DURING RE-4. ALL REFURBISHMENT AND TESTING PERFORMED PRIOR TO INSTALLATION. TESTING PERFORMED DOCUMENTED ON SIP-000-3606 AND SIP-202-0602 DATED 9-8-92.

480. DATE TESTED AFTER REASSEMBLY (Mo/Da/Yr)	481. TEST REPORT NUMBERS FOR POST REASSEMBLY BECH TESTS:	482. TEST REPORT NUMBERS FOR POST REASSEMBLY BECH TESTS:
9-8-92		
<p>483. POST REASSEMBLY BECH TEST RESULTS (ONLY THOSE WHICH MEASURE PERTINENT PARAMETERS SUCH AS SET POINT, RESET PRESSURE, ETC.)</p>		
484. TEST TYPE CODE (SELECT ONE PER LINE)	485. PARAMETER MEASURED CODE (SELECT ONE PER LINE)	486. NUMERICAL RESULTS OF TEST INCLUDE UNITS (OR GIVE LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS)
1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____
4. _____	_____	_____
5. _____	_____	_____
6. _____	_____	_____
7. _____	_____	_____
8. _____	_____	_____
<p>487. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"</p>		
<p>488. TYPE TEST CODE:</p>		
<p>A. SET POINT TEST - STEAM B. SET POINT TEST - N₂ (NITROGEN) C. OPERATIONAL RELIEF TEST - STEAM D. OPERATIONAL RELIEF TEST - N₂ E. LEAK TEST - STEAM F. LEAK TEST - N₂ G. OTHER</p>		
<p>489. PARAMETER MEASURED CODE (SELECT ONE PARAMETER PER TEST. IF MORE THAN ONE PARAMETER IS MEASURED IN A TEST, REPEAT TEST TYPE CODE.)</p>		
<p>A. SET POINT - LIFT PRESSURE B. RESET - RECLOSURE PRESSURE C. VALVE OPENING DELAY TIME D. VALVE OPENING DELAY TIME - MANUAL MODE E. VALVE OPENING DELAY TIME - AUTOMATIC MODE F. MAIN BISC OPENING STROKE TIME G. MAIN BISC OPENING STROKE TIME - MANUAL MODE H. AUTOMATIC MODE I. PILOT STAGE SEAT TIGHTNESS J. MAIN STAGE SEAT TIGHTNESS K. FLANGED CONNECTION GASKET LEAKAGE L. OTHER</p>		
<p>490. DATE REINSTALLED IN SERVICE (Mo/Da/Yr)</p>		
<p>* BEFORE 9-4-92</p>		
<p>491. COMPONENT ID WHERE VALVE REINSTALLED (OR "5" IF STORED OR "D" IF DISPOSED)</p>		

Prepared by: John Murray
Approved by: Sam Delaney

SRVS

MAINTENANCE ACTIVITY

100. PLANT DOCKET #50- 458

PAGE 1 OF 4

NOTE: MUST BE COMPLETED EACH TIME MAINTENANCE IS DONE ON ANY VALVE. INCLUDES ANY RELOCATION OF ANY VALVE.

401. S/R VALVE SERIAL NUMBER N53800-00-0098

402. PLANT'S COMPONENT ID PRIOR TO MAINT. (OR "S" IF FROM STORAGE) 1B21#RVE047C

403. TYPE OF MAINTENANCE CODE

- A. ☒ SCHEDULED/ROUTINE MAINTENANCE - NO FAILURE REQUIRING MAINTENANCE HAS OCCURRED SINCE LAST MAINTENANCE PERIOD
B. ☐ NON-IMMEDIATE MAINTENANCE - SCHEDULED FOR NEXT OUTAGE AFTER A NON-CATASTROPHIC FAILURE OCCURRED
C. ☐ UNSCHEDULED/IMMEDIATE MAINTENANCE - A FAILURE OCCURRED THAT REQUIRED IMMEDIATE MAINTENANCE BE PERFORMED
D. ☒ VALVE RELOCATION REPORT ONLY - VALVE INSTALLED WITH NO MAINTENANCE PERFORMED

404. TYPE REPORT

- A. ☒ COMPLETE
B. ☐ INCOMPLETE - MAINTENANCE DETAILS LATER
C. ☐ ADDITIONS TO PREVIOUSLY INCOMPLETE REPORT
D. ☐ REVISIONS TO PREVIOUSLY COMPLETED REPORT

NOTE: FOR C. AND D., ITEMS 401 AND 402 MUST MATCH THOSE ON REPORT TO BE APPENDED.

NOTE: IF MAINTENANCE IS ASSOCIATED WITH ANY FAILURE, COMPLETE ITEMS 410 THROUGH 417. IF NO FAILURE HAS OCCURRED, CONTINUE FROM ITEM 430.

410. DATE OF FAILURE (Mo/Da/Yr)

411. AUTOMATIC PRESSURE SWITCH OPERABLE?

412. ELECTRIC POWER SUPPLY AVAILABLE?

☐ YES OR ☐ NO

☐ YES OR ☐ NO

413. VOLTAGE OF ELECTRIC POWER SUPPLY

415. NONE(S) OF FAILURE DETECTION (CHECK AS MANY AS APPLICABLE)

416. EFFECT OF FAILURE ON PLANT CODE (CHECK ONE ONLY)

419. TYPE FAILURE (CHECK AS MANY AS APPLICABLE)

- A. ☐ TAILPIPE THERMOCOUPLE READING HIGH
B. ☐ ANNUNCIATOR - TAILPIPE PRESSURE SWITCH
C. ☐ PANEL INDICATOR LIGHTS
D. ☐ DROP IN ELECTRICAL OUTPUT
E. ☐ STEAM-FEED FLOW MISMATCH
F. ☐ IMBALANCE IN STEAM FLOW AMONG STEAM LINES
G. ☐ RISE IN SUPPRESSION POOL TEMPERATURE
H. ☐ RISE IN SUPPRESSION POOL LEVEL
I. ☐ SLIGHT TRANSIENT DROP IN VESSEL LEVEL
J. ☐ RADIATION MONITOR(S)
K. ☐ ACUSTIC MONITOR(S)
L. ☐ DIRECT MOUNTED S/R POSITION INDICATOR
M. ☐ INDIRECT MOUNTED S/R POSITION INDICATOR
N. ☐ OTHER (EXPLAIN IN ITEM 419)

- A. ☐ POWER REDUCTION
B. ☐ TUBING TRIP
C. ☐ MANUAL SCRAM
D. ☐ AUTOMATIC SCRAM
E. ☐ EXTENSION OF PRE-EXISTING SCRAM
F. ☐ MANUAL SHUTDOWN
G. ☐ NO SIGNIFICANT EFFECT

- A. ☐ TRIPED PREMATURELY -
B. ☐ TRIPED BELOW SETPOINT
C. ☐ TRIPED PAST SETPOINT
D. ☐ TRIPED TO LEFT
E. ☐ TRIPED TO RIGHT
F. ☐ TRIPED TO FULLY RESEAT
G. ☐ TRIPED (OTHER THAN HIGH OR LOW)
H. ☐ TRIPED (OTHER THAN HIGH OR LOW)
I. ☐ TRIPED (OTHER THAN HIGH OR LOW)
J. ☐ TRIPED (OTHER THAN HIGH OR LOW)
K. ☐ TRIPED (OTHER THAN HIGH OR LOW)
L. ☐ TRIPED (OTHER THAN HIGH OR LOW)
M. ☐ TRIPED (OTHER THAN HIGH OR LOW)
N. ☐ TRIPED (OTHER THAN HIGH OR LOW)
O. ☐ TRIPED (OTHER THAN HIGH OR LOW)
P. ☐ TRIPED (OTHER THAN HIGH OR LOW)
Q. ☐ TRIPED (OTHER THAN HIGH OR LOW)
R. ☐ TRIPED (OTHER THAN HIGH OR LOW)
S. ☐ TRIPED (OTHER THAN HIGH OR LOW)
T. ☐ TRIPED (OTHER THAN HIGH OR LOW)
U. ☐ TRIPED (OTHER THAN HIGH OR LOW)
V. ☐ TRIPED (OTHER THAN HIGH OR LOW)
W. ☐ TRIPED (OTHER THAN HIGH OR LOW)
X. ☐ TRIPED (OTHER THAN HIGH OR LOW)
Y. ☐ TRIPED (OTHER THAN HIGH OR LOW)
Z. ☐ TRIPED (OTHER THAN HIGH OR LOW)

417. TEMP. OF ENVIRONMENT AROUND S/R VALVE (IF AVAILABLE)

418. WERE THERE ANY ATTACHMENTS (LVDT, POSITION INDICATOR, ETC.) ATTACHED TO S/R VALVE NOT REPORTED ON ORIGINAL "AS FURNISHED" VALVE? IF SO, SPECIFY WHAT AND WHEN ATTACHED. REFERENCE TESTS PERFORMED TO VERIFY COMPATIBILITY WITH VALVE PERFORMANCE:

419. TYPE FAILURE (CHECK AS MANY AS APPLICABLE)

SRVS

MAINTENANCE ACTIVITY (CONT'D.)

PLANT DOCKET # 50 - 458

PAGE 2 OF 4

S/R VALVE SERIAL NUMBER N63802-02-0098

419. DESCRIPTION OF FAILURE, INCLUDING DETECTION MODE:

N/A

430. DATE REMOVED FROM SERVICE (MO/DA/YR)

"AS FOUND" TESTS PERFORMED PRIOR TO DISASSEMBLY:

434.
TEST TYPE CODE
(SELECT ONE PER
LINE)435.
PARAMETER MEASURED
CODE (SELECT ONE
PER LINE)436. 1
NUMERICAL RESULTS OF
TESTS - INCLUDE UNITS
OR GIVE LEAKAGE RATE
OR WRITE "NO LEAK"
FOR LEAKAGE TESTS437.
RESULTS OF TEST
ACCEPTABLE?
"YES" OR "NO"

1.

2.

3.

4.

5.

6.

7.

8.

434. TYPE TEST CODE:

- A. SET POINT TEST - STEAM
- B. SET POINT TEST - N₂ (NITROGEN)
- C. OPERATIONAL RELIEF TEST - STEAM
- D. OPERATIONAL RELIEF TEST - N₂
- E. LEAK TEST - STEAM
- F. LEAK TEST - N₂
- X. OTHER

435. PARAMETER MEASURED CODE (SELECT
ONE PARAMETER PER TEST. IF MORE
THAN ONE PARAMETER IS MEASURED
IN A TEST, REPEAT TEST TYPE CODE.)

- A. SET POINT - LIFT PRESSURE
- B. RESEAT - RECLOSE PRESSURE
- C. VALVE OPENING DELAY TIME -
MANUAL MODE
- D. VALVE OPENING DELAY TIME -
AUTOMATIC MODE
- E. MAIN DISC OPENING STROKE TIME -
MANUAL MODE
- F. MAIN DISC OPENING STROKE TIME -
AUTOMATIC MODE
- G. PILOT STAGE SEAT TIGHTNESS
- H. MAIN STAGE SEAT TIGHTNESS
- J. FLANGED CONNECTION GASKET LEAKAGE
- X. OTHER

451. *Phaetodon ruber* (Peters)
Phaetodon ruber (Peters)

- | | | | |
|----------|----------|----------|----------|
| DATE | DATE | DATE | DATE |
| TIME | TIME | TIME | TIME |
| NAME | NAME | NAME | NAME |
| ADDRESS | ADDRESS | ADDRESS | ADDRESS |
| CITY | CITY | CITY | CITY |
| STATE | STATE | STATE | STATE |
| ZIP | ZIP | ZIP | ZIP |
| PHONE | PHONE | PHONE | PHONE |
| TELETYPE | TELETYPE | TELETYPE | TELETYPE |
| FAX | FAX | FAX | FAX |
| EMAIL | EMAIL | EMAIL | EMAIL |
| WEBSITE | WEBSITE | WEBSITE | WEBSITE |
| OTHER | OTHER | OTHER | OTHER |

57. $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

- OPERATIONS
MAINTENANCE
CONTRACTING, LAB.
and VENTURES

453. CONTINUED, LAB. ON VERNON
CINCINNATI DATE OCT 11 1911
IN 260

- | | |
|-------|------------------------|
| 7-15 | GRASS VALVE & GAGE CO. |
| 7-16 | GRASS VALVE |
| 7-17 | GRASS VALVE |
| 7-18 | GRASS VALVE |
| 7-19 | GRASS VALVE |
| 7-20 | GRASS VALVE |
| 7-21 | GRASS VALVE |
| 7-22 | GRASS VALVE |
| 7-23 | GRASS VALVE |
| 7-24 | GRASS VALVE |
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| 7-90 | GRASS VALVE |
| 7-91 | GRASS VALVE |
| 7-92 | GRASS VALVE |
| 7-93 | GRASS VALVE |
| 7-94 | GRASS VALVE |
| 7-95 | GRASS VALVE |
| 7-96 | GRASS VALVE |
| 7-97 | GRASS VALVE |
| 7-98 | GRASS VALVE |
| 7-99 | GRASS VALVE |
| 7-100 | GRASS VALVE |

465. Maintenance/Retirement
Performing (Select As Many
As Applicable)

- ACTUATION STAGES REPLINED
TORNERS REPLACED WITH ONE OF SAME SETPOINT
REAP SET, DISC
NACHINE
PILOT VALVE DISC
CLEAN REMOOR PILOT ASSEMBLIES
SETPOINT ADJUSTMENT
VALVE THROAT BORE SIZE INCREASED
SOLENOID ASSEMBLY REMOVED, REINSTALLED
REFILL STEAM BLOWDOWN (AIR FILL)
REPLACE CYLON RING (1)
REPLACE CYLON RING (2)
REPLACE DIAPHRAGM (1)
REPLACE DIAPHRAGM (2)
REPLACE REPAIR BELLOW
REPLACE REPAIR GASKET (1)
REPLACE REPAIR GASKET (2)
REPLACE REPAIR SPRING (1)
REPLACE REPAIR SPRING (2)
OTHER EXPLAIN IN NARRATIVE

Observed Damage/Cause of Failure (Check As Many As Applicable in Each Column)
 Answer Both A55 and A56. If a Failure Has Occurred, Do Not Answer A56 If
 No Failure Has Occurred.

Q55.	Q56.
OBSERVED SOURCE	CAUSE OF FAILURE/ DAMAGE IN TESTING
IDENTIFIED TO ANY FAILURE	FROM FAILURE (IF FAILURE WAS DOCUMENTED)

- PILOT DISC STREAM CUT OR BANGED
PISTON RINGS WORK, DAMAGED
DAMAGE TO SEALS
FOREIGN MATERIAL (GRIFF, LEAD) ON/UNDER SEAT
DAMAGE TO 2ND STAGE PISTON
SET POINT DIFF - NOT DAMAGE RELATED
DAMAGED SPRINGS
CASTING DEFECTS
OTHER MANUFACTURING DEFECTS
IMPROPER ASSEMBLY OR INSTALLATION, MISSING PARTS
NORMAL WEAR
DAMAGED - O - RINGS (BEYOND NORMAL WEAR)
DIAPHRAGM(S) DAMAGED
GASKET(S) WORN BEYOND NORMAL, EXPECTED WEAR
BELLOWS DAMAGED, WORN
BROKEN AIR LINE
SOLENOID FAILURE
FAILURE OF AIR OPERATOR ASSEMBLY
OTHER (EXPLAIN IN NARRATIVE)
NO DAMAGE NOT JUST DIRECTLY RELATING TO FAILURE

460. DETAILS OF OBSERVED DAMAGE / CAUSE OF FAILURE NARRATIVE:

SRVS

MAINTENANCE ACTIVITY (CONT'D.)

PLANT BOOKET # 50- 458

PAGE 4 OF 4

S/R VALVE SERIAL NUMBER N63800-00-0098

N70. DETAILS OF MAINTENANCE/REFINISHING NARRATIVE: SCHEDULED REMOVAL AND REPLACEMENT OF THESE SRV'S DURING RE-4. ALL REFURBISHMENT AND TESTING PERFORMED PRIOR TO INSTALLATION. TESTING PERFORMED DOCUMENTED ON STP-000-3606 AND STP-202-0602 DATED 9-8-92.

N80. DATE TESTED AFTER REASSEMBLY (Mo/Da/Yr) 9-8-92

CODES

N81. TEST REPORT NUMBERS FOR POST REASSEMBLY BENCH TESTS:

POST REASSEMBLY BENCH TEST RESULTS (ONLY THOSE WHICH MEASURE PERTINENT PARAMETERS SUCH AS SET POINT, RESEAT PRESSURE, ETC.)

N84. TEST TYPE CODE (SELECT ONE PER LINE)	N85. PARAMETER MEASURED CODE (SELECT ONE PER LINE)	N86. NUMERICAL RESULTS OF TEST - INCLUDE UNITS (OR GIVE LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS)	N87. RESULTS OF TEST - ACCEPTABLE? "YES" OR "NO"
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			

N89. TYPE TEST CODE:

- A. SET POINT TEST - STEAM
- B. SET POINT TEST - N₂ (NITROGEN)
- C. OPERATIONAL RELIEF TEST - STEAM
- D. OPERATIONAL RELIEF TEST - N₂
- E. LEAK TEST - STEAM
- F. LEAK TEST - N₂
- X. OTHER

N95. PARAMETER MEASURED CODE (SELECT ONE PARAMETER PER TEST. IF MORE THAN ONE PARAMETER IS MEASURED IN A TEST, REPEAT TEST TYPE CODE.)

- A. SET POINT - LIVE PRESSURE
- B. RESEAT - RECLOSE PRESSURE
- C. VALVE OPENING DELAY TIME
- D. MANUAL MODE
- E. VALVE OPENING DELAY TIME
- F. AUTOMATIC MODE
- G. MAIN DISC OPENING STROKE TIME
- H. MANUAL MODE
- I. MAIN DISC OPENING STROKE TIME
- J. AUTOMATIC MODE
- K. PILOT STAGE SEAT TIGHTNESS
- L. MAIN STAGE SEAT TIGHTNESS
- M. FLANGED CONNECTION GASKET LEAKAGE
- X. OTHER

N90. DATE REINSTALLED IN SERVICE (Mo/Da/Yr)

N91. COMPONENT TO WHICH VALVE REINSTALLED (OR "S" IF STORED OR "D" IF DISPOSED)

* BEFORE 9-4-92

NOTE: MUST BE COMPLETED EACH TIME MAINTENANCE IS DONE ON ANY VALVE. INCLUDES ANY RELOCATION OF ANY VALVE.

401. S/R VALVE SERIAL NUMBER N63800-00-0081

402. PLANT'S COMPONENT ID PRIOR TO MAINT. (OR "S" IF FROM STORAGE) 1B21*RVF047D

403. TYPE OF MAINTENANCE CODE

☒ SCHEDULED/ROUTINE MAINTENANCE - NO FAILURE REQUIRING MAINTENANCE HAS OCCURRED SINCE LAST MAINTENANCE PERIOD

☐ NON-IMMEDIATE MAINTENANCE - SCHEDULED FOR NEXT OUTAGE AFTER A NON-CATASTROPHIC FAILURE OCCURRED

☐ UNSCHEDULED/IMMEDIATE MAINTENANCE - A FAILURE OCCURRED THAT REQUIRED IMMEDIATE MAINTENANCE BE PERFORMED

☒ VALVE RELOCATION REPORT ONLY - VALVE INSTALLED WITH NO MAINTENANCE PERFORMED

REV. TYPE REPORT

☒ COMPLETE
 ☐ INCOMPLETE - MAINTENANCE DETAILS LATER
 ☐ ADDITIONS TO PREVIOUSLY INCOMPLETE REPORT
 ☐ REVISIONS TO PREVIOUSLY COMPLETED REPORT

NOTE: FOR C. AND D., ITEMS 405 AND 410 MUST MATCH THOSE ON REPORT TO BE APPENDED.

NOTE: IF MAINTENANCE IS ASSOCIATED WITH ANY FAILURE, COMPLETE ITEMS 410 ONWARD. IF NO FAILURE HAS OCCURRED, CONTINUE FROM ITEM 410.

410. DATE OF FAILURE (Mo/Da/Yr)

411. AUTOMATIC PRESSURE SWITCH OPERABLE?

412. ELECTRIC POWER SUPPLY AVAILABLE?

413. VOLTAGE OF ELECTRIC POWER SUPPLY

☐ YES OR ☐ NO

414. TYPE FAILURE (CHECK AS MANY AS APPLICABLE)

415. MODE(S) OF FAILURE DETECTION (CHECK AS MANY AS APPLICABLE)

416. EFFECT OF FAILURE ON PLANT CODE (CHECK ONE ONLY)

417. TEMP. OF ENVIRONMENT AROUND S/R VALVE (IF AVAILABLE)

418. WERE THERE ANY ATTACHMENTS (LVDT, POSITION INDICATOR, ETC.) ATTACHED TO S/R VALVE NOT DETECTED ON ORIGINAL "AS FURNISHED" VALVE? IF SO, SPECIFY WHAT AND WHEN ATTACHED. REFERENCE TESTS PERFORMED TO VERIFY COMPATIBILITY WITH VALVE PERFORMANCE.

SRVS

MAINTENANCE ACTIVITY (CONT'D.)

PLANT DOCKET # 50 - 458 PAGE 2 OF 4
S/R VALVE SERIAL NUMBER N63800-00-0001

419. DESCRIPTION OF FAILURE, INCLUDING DETECTION MODE: N/A

420. DATE REMOVED FROM SERVICE (Mo/Da/Yr) _____

"AS FOUND" TESTS PERFORMED PRIOR TO DISASSEMBLY:

434. TEST TYPE CODE (SELECT ONE PER LINE)	435. PARAMETER MEASURED CODE (SELECT ONE PER LINE)	436. 1. NUMERICAL RESULTS OF TESTS - INCLUDE UNITS OR GIVE LEAKAGE RATE OR NOTE "NO LEAK" FOR LEAKAGE TESTS	437. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____

438. TYPE TEST CODE:

- A. SET POINT TEST - STEAM
- B. SET POINT TEST - N₂ (NITROGEN)
- C. OPERATIONAL RELIEF TEST - STEAM
- D. OPERATIONAL RELIEF TEST - N₂
- E. LEAK TEST - STEAM
- F. LEAK TEST - N₂
- X. OTHER _____

435. PARAMETER MEASURED CODE (SELECT ONE PARAMETER PER TEST, IF MORE THAN ONE PARAMETER IS MEASURED IN A TEST, REPEAT TEST TYPE CODE.)

- A. SET POINT - LIFT PRESSURE
- B. RESET - RECLOSURE PRESSURE
- C. VALVE OPENING DELAY TIME - MANUAL MODE
- D. VALVE OPENING DELAY TIME - AUTOMATIC MODE
- E. MAIN DISC OPENING STROKE TIME - MANUAL MODE
- F. MAIN DISC OPENING STROKE TIME - AUTOMATIC MODE
- G. PILOT STAGE SEAT TIGHTNESS
- H. MAIN STAGE SEAT TIGHTNESS
- I. FLANGED CONNECTION GASKET LEAKAGE
- X. OTHER _____

[illegible]

- ☐ A. ☐ IS THE PLACE ☐ CALLED ☐ BATHING
☐ B. ☐ IS THE SITE ☐ VALLEY ☐ IS
☒ C. ☐ MOVES FROM ☐ TOWN
☐ D. ☐ LATION BUY ☐ REMAINS
☐ E. ☐ ON PLAIN ☐ SITE

MSZ. PLATE NUMBER / SEE FRONT MATTER
 REFERENCE BY NUMBER
 (LINE NUMBER)

- 
 DEPARTMENT OF EDUCATION
 PUBLIC SERVICE
 CONTRACTORS, LAB.
 and Veterans

453. (CONTRACTOR - LAB. OR VERSION)
(CIRCUIT BOARD ONLY IF ITEM #52
IS "C")

- | | |
|------|-------------------------|
| C711 | CROSBY VALVE & GAGE CO. |
| D16 | PIPES |
| B29 | WELDER VALVE |
| G82 | GENERAL ELECTRIC CORP. |
| Q99 | TRAM VALVE MFG. WORKS |
| 1020 | TABLER TON CORP. |
| M336 | WILE LABS |
| | OTHER: |

Table 5.	Percentage of Outcomes Meeting or Exceeding AS APPLICABLE
----------	---

- ACTION STAGES REPLAINED
 TOPWORKS REPLACED WITH ONE OF SAME SETPOINT
 REAP STAY - DISC
 MACHINE PILOT VALVE DISC
 CLEAN & REPAIR PILOT ASSEMBLY
 SETPOINT ADJUSTING
 VALVE INLEAK ROBE SIZE INCREASED
 LEAKED STEAMY REMOVED, REINSTALLED
 SPECIFIC STEAM BALANCE (AIR/FIRE)
 REPLACE VALVE STEPS
 REPAIR - RINGS
 REPLACE DIAPHRAGM(S)
 REPAIR/REPAIR SLEW
 REPAIR/REPAIR GASKETS
 REPAIR/REPAIR SPRINGS
 OTHER (EXPLAIN IN NARRATIVE)

95% x 95%.

Describe a possible cause of failure if more than many as acceptable in each column.

Answer: Both 95% and 95% if a failure has occurred. Do not answer 95% if no failure has occurred.

NO.	RECEIVED	DATE	CAUSE OF FAILURE / REASON FOR THE FAILURE HAS OCCURRED)
853.			
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857.			
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860.			
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899.			
900.			

- PISTON DISC STEAM CUT ON DAMAGED
PISTON RINGS BORN, DAMAGED
DAMAGE TO SEATER)
FOREIGN MATERIAL (LUBR, LUBES) ON/OVER SEAT
DAMAGE TO 2ND STAGE PISTON
SET POINT DRIFT - NOT DAMAGE RELATED
DAMAGED SPRINGS)
CASTING DEFECTS
OTHER MANUFACTURING DEFECTS
IMPROPER ASSEMBLY OR INSTALLATION, MISSING, P
NORMAL WAR
DAMAGED "U"-RINGS) (BETOND NORMAL WAR)
DAMAGED (R) DAMAGED
WARRANTED) BORN IN YORD
BELLWAS DAMAGED, BORN
BROKEN AIR LINE
SOLENOID FAILURE
FAILURE OF AIR OPERATOR ASSEMBLY
OTHER (EXPLAIN IN NARRATIVE)
NO DAMAGE - KEPT THIS DIRECTLY RELATING TO FAILURE

NO DAMAGE EXCEPT THAT DIRECTLY RELATING TO FAILURE

66-0, DETAILS OF OBSERVED DAMAGE / CAUSE OF FAILURE NARRATIVE:

SRVS

MAINTENANCE ACTIVITY (CONT'D.)

PLANT DOCKET # 50- 458

PAGE 4 OF 4

S/R VALVE SERIAL NUMBER N63800-00-0081

470. DETAILS OF MAINTENANCE/REFURBISHING NARRATIVE: SCHEDULED REMOVAL AND REPLACEMENT OF THESE SRV'S DURING RF-4. ALL REFURBISHMENT AND TESTING PERFORMED PRIOR TO INSTALLATION. TESTING PERFORMED DOCUMENTED ON STP-000-3606 AND STP-202-0602 DATED 9-8-92.

480. DATE TESTED AFTER REASSEMBLY (Mo/Da/Yr)

9-8-92

481. TEST REPORT NUMBERS FOR POST REASSEMBLY BENCH TESTS:

POST REASSEMBLY BENCH TEST RESULTS (ONLY THOSE WHICH MEASURE PERTINENT PARAMETERS SUCH AS SET POINT, RESET PRESSURE, ETC.)

484. TEST TYPE CODE (SELECT ONE PER LINE)

485. PARAMETER MEASURED CODE (SELECT ONE PER LINE)

486. NUMERICAL RESULTS OF TEST - INCLUDE UNITS (OR GIVE LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS)

487. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"

1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			

490. DATE REINSTALLED IN SERVICE (Mo/Da/Yr)

*BEFORE 9-4-92

491. COMPONENT ID WHERE VALVE REINSTALLED (OR "S" IF STORED OR "D" IF DISPOSED)

CODES

484. TYPE TEST CODE:

- A. SET POINT TEST - STEAM
- B. SET POINT TEST - N₂ (NITROGEN)
- C. OPERATIONAL RELIEF TEST - STEAM
- D. OPERATIONAL RELIEF TEST - N₂
- E. LEAK TEST - STEAM
- F. LEAK TEST - N₂
- G. OTHER

485. PARAMETER MEASURED CODE (SELECT ONE PARAMETER PER TEST. IF MORE THAN ONE PARAMETER IS MEASURED IN A TEST, REPEAT TEST TYPE CODE.)

- A. SET POINT - LEAK PRESSURE
- B. RESET - BACKUP PRESSURE
- C. VALVE OPENING DELAY TIME - MANUAL MODE
- D. VALVE OPENING DELAY TIME - AUTOMATIC MODE
- E. MAIN STAGE OPENING STROKE TIME - MANUAL MODE
- F. MAIN STAGE OPENING STROKE TIME - AUTOMATIC MODE
- G. PILOT STAGE SEAT TIGHTNESS
- H. MAIN STAGE SEAT TIGHTNESS
- J. FLANGED CONNECTION GASKET LEAKAGE
- K. OTHER

Prepared by: John Murray
Approved by: G. M. Delaney

SRVS

MAINTENANCE ACTIVITY

1000, PLANT DOCKET #50- 458

PAGE 1 OF 4

NOTE: MUST BE COMPLETED EACH TIME MAINTENANCE IS DONE ON ANY VALVE. INCLUDES ANY RELOCATION OF ANY VALVE.

901. S/R VALVE SERIAL NUMBER N63800-00-0095

902. PLANT'S COMPONENT ID PRIOR TO MINT. (ON 5- IF FROM STORAGE) 1821#RVF047F

903. TYPE OF MAINTENANCE CODE

- A. ☒ SCHEDULED/ROUTINE MAINTENANCE - NO FAILURE REQUIRING MAINTENANCE HAS OCCURRED SINCE LAST MAINTENANCE PERIOD
B. ☐ NON-IMMEDIATE MAINTENANCE - SCHEDULED FOR NEXT OUTAGE AFTER A NON-CATASTROPHIC FAILURE OCCURRED
C. ☐ UNSCHEDULED/IMMEDIATE MAINTENANCE - A FAILURE OCCURRED THAT REQUIRED IMMEDIATE MAINTENANCE BE PERFORMED
D. ☒ VALVE RELOCATION REPORT ONLY - VALVE INSTALLED WITH NO MAINTENANCE PERFORMED.

904. TYPE REPORT

- A. ☒ COMPLETE
B. ☐ INCOMPLETE - MAINTENANCE DETAILS LATER
C. ☐ ADDITIONS TO PREVIOUSLY INCOMPLETE REPORT
D. ☐ REVISIONS TO PREVIOUSLY COMPLETED REPORT

NOTE: FOR C. AND D., ITEMS 901 AND 902 MUST MATCH THOSE ON REPORT TO BE AMENDED.

NOTE: IF MAINTENANCE IS ASSOCIATED WITH ANY FAILURE, COMPLETE ITEMS 910 THROUGH 917. IF NO FAILURE HAS OCCURRED, CONTINUE FROM ITEM 920.

910. DATE OF FAILURE (Mo/Da/Yr)

911. AUTOMATIC PRESSURE SWITCH OPERABLE?

912. ELECTRIC POWER SUPPLY AVAILABLE?

☐ YES OR ☐ NO

☐ YES OR ☐ NO

913. VOLTAGE OF ELECTRIC POWER SUPPLY

915. MODE(S) OF FAILURE DETECTION (CHECK AS MANY AS APPLICABLE)

916. EFFECT OF FAILURE ON PLANT CODE (CHECK ONE ONLY)

919. TYPE FAILURE (CHECK AS MANY AS APPLICABLE)

- A. ☐ LIFTED PREMATURELY - LIFTED BELOW SETPOINT
B. ☐ LIFTED PAST SETPOINT
C. ☐ FAILED TO LIFT
D. ☐ FAILED TO RECLOSE
E. ☐ FAILED TO FULLY RESEAT
F. ☐ LEAKAGE (OTHER THAN MINOR)
G. ☐ UNDESIRABLE OPENING OF S/R VALVE
H. ☐ OTHER (EXPLAIN IN ITEM 919)

- A. ☐ POWER REDUCTION
B. ☐ TUBING TRIP
C. ☐ MANUAL SCRAM
D. ☐ AUTOMATIC SCRAM
E. ☐ EXTENSION OF PRE-EXISTING SHUTDOWN
F. ☐ MANUAL SHUTDOWN
G. ☐ NO SIGNIFICANT EFFECT

- A. ☐ TAILPIPE INTERCOUPLE READINGS HIGH
B. ☐ ANNUNCIATOR - TAILPIPE PRESSURE SWITCH
C. ☐ PANEL INDICATOR LIGHTS
D. ☐ DROP IN ELECTRICAL OUTPUT
E. ☐ STEAM-FEED FLOW MISMATCH
F. ☐ IMBALANCE IN STEAM FLOW AMONG STEAM LINES
G. ☐ RISE IN SUPPRESSION POOL TEMPERATURE
H. ☐ RISE IN SUPPRESSION POOL LEVEL
I. ☐ SLIGHT TRANSIENT DROP IN VESSEL LEVEL
J. ☐ RADIATION MONITOR(S)
K. ☐ ACOUSTIC MONITOR(S)
L. ☐ DIRECT-MOUNTED SRY POSITION INDICATOR
M. ☐ INDIRECT-MOUNTED SRY POSITION INDICATOR
N. ☐ OTHER (EXPLAIN IN ITEM 919)

917. TEMP. OF ENVIRONMENT AROUND S/R VALVE (IF AVAILABLE)

"F"

918. WERE THERE ANY ATTACHMENTS (LVDT, POSITION INDICATOR, ETC.) ATTACHED TO S/R VALVE NOT DEPICTED ON ORIGINAL "AS FURNISHED" VALVE? IF SO, SPECIFY WHAT AND WHEN ATTACHED. REFERENCE TESTS PERFORMED TO VERIFY COMPATIBILITY WITH VALVE PERFORMANCE:

419. DESCRIPTION OF FAILURE, INCLUDING DETECTION MODE:

N/A

420. DATE REMOVED FROM SERVICE (Mo/Da/Yr)

"AS FOUND" TESTS PERFORMED PRIOR TO DISASSEMBLY:

434. TEST TYPE CODE
(SELECT ONE PER
LINE)435. PARAMETER MEASURED
CODE (SELECT ONE
PER LINE)436. 1
NUMERICAL RESULTS OF
TESTS - INCLUDE UNITS
OR GIVE LEAKAGE RATE
OR WRITE "NO LEAK"
FOR LEAKAGE TESTS437. RESULTS OF TEST
ACCEPTABLE?
"YES" OR "NO"

1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____

434. TYPE TEST CODE:

- A. SET POINT TEST - STEAM
- B. SET POINT TEST - N₂ (NITROGEN)
- C. OPERATIONAL RELIEF TEST - STEAM
- D. OPERATIONAL RELIEF TEST - N₂
- E. LEAK TEST - STEAM
- F. LEAK TEST - N₂
- X. OTHER _____

435. PARAMETER MEASURED CODE (SELECT
ONE PARAMETER PER TEST. IF MORE
THAN ONE PARAMETER IS MEASURED
IN A TEST, REPEAT TEST TYPE CODE.)

- A. SET POINT - LIFT PRESSURE
- B. RESEAT - RECLOSE PRESSURE
- C. VALVE OPENING DELAY TIME -
MANUAL MODE
- D. VALVE OPENING DELAY TIME -
AUTOMATIC MODE
- E. MAIN DISC OPENING STROKE TIME -
MANUAL MODE
- F. MAIN DISC OPENING STROKE TIME -
AUTOMATIC MODE
- G. PILOT STAGE SEAT TIGHTNESS
- H. MAIN STAGE SEAT TIGHTNESS
- J. FLANGED CONNECTION GASKET LEAKAGE
- X. OTHER _____

10. The following are the names of the people who were present at the meeting on the 10th of the month of the year 1999.

- A. ☐ **NO** (VALUE REMAINS)
 B. ☐ **NO** (VALUE IS REMOVED FROM LIST)
 C. ☒ **YES** (VALUE IS REMOVED FROM LIST)

MS 2. PLA1@EPLA.NET / 012 450 09 1 244 1000
 For more information visit
www.epla.net

- OPERATIONS
MANUFACTURING
CONSTRUCTION, LAB.
NEW VENTURES

453. CONTAMINANT, LAB. OR VERMION
COUNCIL ONE ONLY IF ITEM 452
IS 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835

- | | |
|------|------------------------|
| 7114 | GRABY VALVE & GAGE CO. |
| 7097 | DIERNS |
| 7096 | DIEMER VALVE |
| 0088 | DIEMER VALVE |
| 0089 | DIEMER VALVE |
| 0090 | DIEMER VALVE |
| 0091 | DIEMER VALVE |
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| 0220 | DIEMER VALVE |
| 0221 | DIEMER VALVE |
| 0222 | DIEMER VALVE |
| 0223 | DIEMER VALVE |
| 0224 | DIEMER VALVE |
| 0225 | DIEMER VALVE |
| 0226 | DIEMER VALVE |
| 0227 | DIEMER VALVE |
| 0228 | DIEMER VALVE |
| 0229 | DIEMER VALVE |
| 0230 | DIEMER VALVE |

665. PLANTING/REPLANTING
PROGRAMS (SELECT A PARTY
AS APPLICANT)

- ACTUATION STAGES REPLACED
TOPWHEEL REPLACED WITH Q. OF SAME SETPOINT
1
REAR NAT. DISC
MACHINE PILOT VALVE DISC
CLEAN & REWORK PILOT ASSEMBLIES
SETPOINT ADJUSTMENT
VALVE THROAT BOSS SIZE INCREASED
SOLENOID ASSEMBLY REMOVED, BEING CALLED
FOR DIFF. STEAM DISCREPANCY
REPLACE CUSTOM THINGS IS?
REPLACE Q-RINGS
REPLACE DIAPHRAGMS
REPLACE REPAIR BALLON
REPLACE/REPAIR GASKETS
REPLACE/REPAIR SPRINGS
OTHER (EXPLAIN IN REMARKS)

Q55. * Q56.
 DESERVE DAMAGE/CAUSE OF FAILURE BOTH Q55 AND Q56. IF FAILURE HAS OCCURRED, DO NOT ANSWER Q56 IF NO FAILURE HAS OCCURRED. IF FAILURE IS APPLICABLE IN EACH CASE, F

	DATE	DESCRIPTION	AMOUNT	BALANCE
955.	RECEIVED			
	DEPOSIT			
	PAYROLL			
	SALES TAX			
	PROPERTY TAX			
	INTEREST ON			
	LOAN			
	DIVIDENDS			
	ROYALTIES			
	GAINS			
	LOSSES			
	NET GAIN			
	TOTAL			
	CHECKED BY			
	SIGNED			
	DATE			
	BY			
	FOR			
	OF			
	THE			
	BOARD OF DIRECTORS			
	AND OFFICERS			
	OF THE COMPANY			
	FOR THE YEAR ENDING			
	AT THE ANNUAL MEETING			
	HOLDEN			
	SECRETARY			
	DATE			
	BY			
	FOR			
	OF THE BOARD			
	OF DIRECTORS			
	OF THE COMPANY			
	FOR THE YEAR ENDING			
	AT THE ANNUAL MEETING			
	HOLDEN			
	SECRETARY			
	DATE			
	BY			
	FOR			
	OF THE BOARD			
	OF DIRECTORS			
	OF THE COMPANY			
	FOR THE YEAR ENDING			
	AT THE ANNUAL MEETING			
	HOLDEN			
	SECRETARY			
	DATE			
	BY			
	FOR			
	OF THE BOARD			
	OF DIRECTORS			
	OF THE COMPANY			
	FOR THE YEAR ENDING			
	AT THE ANNUAL MEETING			
	HOLDEN			
	SECRETARY			
	DATE			
	BY			
	FOR			
	OF THE BOARD			
	OF DIRECTORS			
	OF THE COMPANY			
	FOR THE YEAR ENDING			
	AT THE ANNUAL MEETING			
	HOLDEN			
	SECRETARY			
	DATE			
	BY			
	FOR			
	OF THE BOARD			
	OF DIRECTORS			
	OF THE COMPANY			
	FOR THE YEAR ENDING			
	AT THE ANNUAL MEETING			
	HOLDEN			
	SECRETARY			
	DATE			
	BY			
	FOR			
	OF THE BOARD			
	OF DIRECTORS			
	OF THE COMPANY			
	FOR THE YEAR ENDING			
	AT THE ANNUAL MEETING			
	HOLDEN			
	SECRETARY			
	DATE			
	BY			
	FOR			
	OF THE BOARD			
	OF DIRECTORS			
	OF THE COMPANY			
	FOR THE YEAR ENDING			
	AT THE ANNUAL MEETING			
	HOLDEN			
	SECRETARY			
	DATE			
	BY			
	FOR			
	OF THE BOARD			
	OF DIRECTORS			
	OF THE COMPANY			
	FOR THE YEAR ENDING			
	AT THE ANNUAL MEETING			
	HOLDEN			
	SECRETARY			
	DATE			
	BY			
	FOR			
	OF THE BOARD			
	OF DIRECTORS			
	OF THE COMPANY			

- PILOT DISC STEAM CUT ON DAMAGED
PISTON RINGS WORN, DAMAGED
DAMAGE TO SCAB(S)
FOREIGN MATERIAL (GUST, LUB) ON/UNDER SEAT
DAMAGE TO 2ND STAGE PISTON
SEY POINT DRIFT - NOT DAMAGE RELATED
DAMAGED SPRINGS)
CASTING DEFECTS
OTHER MANUFACTURING DEFECTS
IMPROPER ASSEMBLY OR INSTALLATION, MISSING P
NORMAL W/OUT HINGES) (BEYOND NORMAL WEAR)
DAMAGED
DIAPHRAGM(S) DAMAGED
CARBETTS) WORN BEYOND NORMAL, EXPECTED WEAR
BELLONS DAMAGED, WORN
BROKEN AIR LINE
SOLENOID FAILURE
FAILURE OF AIR OPERATOR ASSEMBLY
OTHER (EXPLAIN IN NARRATIVE)
EXCEPT THAT DIRECTLY RELATING TO FAILURE
NO DAMAGE

460. DETAILS OF DERIVED DAMAGE/CAUSE OF FAILURE NARRATIVE:

DETAILS OF OBSERVED DAMAGE / CAUSE OF FAILURE NARRATIVE:

SRVS

MAINTENANCE ACTIVITY (CONT'D.)

 PLANT Pocket # 50-458
 S/R VALVE SERIAL NUMBER N63800-00-0095

PAGE 4 OF 4

470. DETAILS OF MAINTENANCE/REFINISHING NARRATIVE: SCHEDULED REMOVAL AND REPLACEMENT
OF THESE SRV'S DURING RF-4. ALL REFURBISHMENT AND
TESTING PERFORMED PRIOR TO INSTALLATION. TESTING
PERFORMED DOCUMENTED ON STP-000-3606 AND STP-202-0602
DATED 9-8-92.

480. DATE TESTED AFTER REASSEMBLY (MM/DD/YY)

9-8-92

481.

TEST REPORT NUMBERS FOR POST REASSEMBLY BENCH TESTS:

POST REASSEMBLY BENCH TEST RESULTS (ONLY THOSE WHICH MEASURE PERTINENT PARAMETERS SUCH AS SET POINT, RESET PRESSURE, ETC.)

484.

TEST TYPE CODE (SELECT ONE PER LINE)

 1. _____
 2. _____
 3. _____
 4. _____
 5. _____
 6. _____
 7. _____
 8. _____

485.

PARAMETER MEASURED (INCLUDE UNITS FOR GIVE LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS)

 1. _____
 2. _____
 3. _____
 4. _____
 5. _____
 6. _____
 7. _____
 8. _____

486.

NUMERICAL RESULTS OF TEST - INCLUDE UNITS (OR GIVE LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS)

 1. _____
 2. _____
 3. _____
 4. _____
 5. _____
 6. _____
 7. _____
 8. _____

487.

RESULTS OF TEST - ACCEPTABLE? ("YES" OR "NO")

 1. _____
 2. _____
 3. _____
 4. _____
 5. _____
 6. _____
 7. _____
 8. _____

COMPLS

488. TYPE TEST CODE:

- A. SET POINT TEST - STEAM
 B. SET POINT TEST - N₂ (NITROGEN)
 C. OPERATIONAL RELIEF TEST - STEAM
 D. OPERATIONAL RELIEF TEST - N₂
 E. LEAK TEST - STEAM
 F. LEAK TEST - N₂
 X. OTHER

485.

PARAMETER MEASURED CODE (SELECT ONE PARAMETER PER TEST. IF MORE THAN ONE PARAMETER IS MEASURED IN A TEST, REPEAT TEST TYPE CODE.)

- A. SET POINT - LIFT PRESSURE
 B. RESET - RECLOSE PRESSURE
 C. VALVE OPENING DELAY TIME
 D. VALVE CLOSING DELAY TIME
 E. AUTOMATIC MODE
 F. MAIN DISC OPENING STROKE TIME
 G. MAIN DISC CLOSING STROKE TIME
 H. PILOT STAGE SEAT TIGHTNESS
 I. MAIN STAGE SEAT TIGHTNESS
 J. FLANGED CONNECTION GASKET LEAKAGE
 X. OTHER

489. DATE REINSTALLED IN SERVICE (MM/DD/YY)

* BEFORE 9-4-92

491. COMPONENT ID WHERE VALVE REINSTALLED (OR "S" IF STORED OR "D" IF DISPOSED)

SRVS
Prepared by: John Murray
Approved by: G. A. Dole

MAINTENANCE ACTIVITY

100. PLANT DOCKET #50 458

NOTE: MUST BE COMPLETED EACH TIME MAINTENANCE IS DONE ON ANY VALVE. INCLUDES ANY RELOCATION OF ANY VALVE.

401. S/R VALVE SERIAL NUMBER N63800-00-0123

402. PLANT'S COMPONENT ID PRIOR TO MAINT. (OW "S" IF FROM STORAGE) 1B21ARVFD51B

403. TYPE OF MAINTENANCE CODE

- A. ☒ SCHEDULED/ROUTINE MAINTENANCE - NO FAILURE REQUIRING MAINTENANCE HAS OCCURRED SINCE LAST MAINTENANCE PERIOD
B. ☐ ROUTINE MAINTENANCE - SCHEDULED FOR NEXT OUTAGE
C. ☐ AFTER A NON-CATASTROPHIC FAILURE OCCURRED
D. ☐ UNSCHEDULED/IMMEDIATE MAINTENANCE - A FAILURE OCCURRED THAT REQUIRED IMMEDIATE MAINTENANCE BE PERFORMED
E. ☒ VALVE RELOCATION REPORT ONLY - VALVE INSTALLED WITH NO MAINTENANCE PERFORMED.

404. TYPE REPORT

- A. ☒ COMPLETE
B. ☐ INCOMPLETE - MAINTENANCE DETAILS LATER
C. ☐ ADDITIONS TO PREVIOUSLY INCOMPLETE REPORT
D. ☐ REVISIONS TO PREVIOUSLY COMPLETED REPORT

NOTE: FOR C. AND D., ITEMS 403 AND 402 MUST MATCH THOSE ON REPORT TO BE AMENDED.

NOTE: IF MAINTENANCE IS ASSOCIATED WITH ANY FAILURE, COMPLETE ITEMS 410 THROUGH 419. IF NO FAILURE HAS OCCURRED, CONTINUE FROM ITEM 420.

410. DATE OF FAILURE (Mo/Da/Yr)

411. AUTOMATIC PRESSURE SWITCH OPERABLE?

412. ELECTRIC POWER SUPPLY AVAILABLE?

☐ YES OR ☐ NO

☐ YES OR ☐ NO

413. VOLTAGE OF ELECTRIC POWER SUPPLY

415. MODE(S) OF FAILURE DETECTION (CHECK AS MANY AS APPLICABLE)

416. EFFECT OF FAILURE ON PLANT CODE (CHECK ONE ONLY)

418. TYPE FAILURE (CHECK AS MANY AS APPLICABLE)

- A. ☐ FAILPIPE THERMOCOUPLE READING HIGH
B. ☐ ANNUNCIATOR - FAILPIPE PRESSURE SWITCH
C. ☐ PANEL INDICATOR LIGHTS
D. ☐ DROP IN ELECTRICAL OUTPUT
E. ☐ STEAM-FEED FLOW MISMATCH
F. ☐ IMBALANCE IN STEAM FLOW LEADING STEAM LINES
G. ☐ RISE IN SUPPRESSION POOL TEMPERATURE
H. ☐ RISE IN SUPPRESSION POOL LEVEL
I. ☐ SLIGHT TRANSIENT DROP IN VESSEL LEVEL
J. ☐ RADIATION MONITOR(S)
K. ☐ ACOUSTIC MONITOR(S)
L. ☐ DIRECT-MOUNTED SRY POSITION INDICATOR
M. ☐ INDIRECT-MOUNTED SRY POSITION INDICATOR
N. ☐ OTHER (EXPLAIN IN ITEM 419)

- A. ☐ POWER REDUCTION
B. ☐ TURBINE TRIP
C. ☐ MANUAL SCRAM
D. ☐ AUTOMATIC SCRAM
E. ☐ EXTENSION OF PDE EXISTING
F. ☐ SHUTDOWN
G. ☐ MANUAL SHUTDOWN
H. ☐ NO SIGNIFICANT EFFECT

- A. ☐ TRIPPED PREMATURELY -
B. ☐ TRIPPED BELOW SETPOINT
C. ☐ TRIPPED AT SETPOINT
D. ☐ FAILED TO TRIP
E. ☐ FAILED TO RECLOSE
F. ☐ FAILED TO FULLY RESEAT
G. ☐ LEAKAGE (OTHER THAN RINGS)
H. ☐ INVERTED OPENING OF S/R VALVE
I. ☐ OTHER (EXPLAIN IN ITEM 419)

417. TEMP. OF ENVIRONMENT AROUND S/R VALVE (IF AVAILABLE)

"F"

419. WERE THERE ANY ATTACHMENTS (LVDT, POSITION INDICATOR, ETC.) ATTACHED TO S/R VALVE NOT DEPICTED ON ORIGINAL "AS FURNISHED" VALVE? IF SO, SPECIFY WHAT AND WHEN ATTACHED. REFERENCE TESTS PERFORMED TO VERIFY COMPATIBILITY WITH VALVE PERFORMANCE:

419. Description of Failure, Including Detection Mode:

450. Date Received From Service (Mo./Da./Yr.)

"As Found" Tests Performed Prior to Disassembly:

[illegible]

43a.	Type Test Code:

- [illegible]

435. 下列各句中，没有语病的一句是（3分）
A. 随着“一带一路”的推进，中国正成为世界瞩目的焦点。
B. 通过这次活动，使我们增长了见识，开阔了眼界。
C. 为了防止此类事故不再发生，有关部门采取了有力措施。
D. 他不仅在学习上刻苦努力，而且在体育方面也有特长。

- | | |
|----|--|
| A. | Set Point - Lift Pressure |
| B. | Reset - Release Pressure |
| C. | Valve Opening Delay Time - Manual Mode |
| D. | Valve Opening Delay Time - Automatic Mode |
| E. | Main Disc Opening Stroke Time - Manual Mode |
| F. | Main Disc Opening Stroke Time - Automatic Mode |
| G. | Pilot Stage Seat Tightness |
| H. | Main Stage Seat Tightness |
| I. | Plugged Connection Gasket Leakage |
| J. | Other |

SRVS

Designed by: John Murray
Approved by: S. M. Dolney

MAINTENANCE ACTIVITY (CONT'D.)

PLANT INCKET #50-458

S/R VALVE SERIAL NUMBER N63800-00-0123

N51. MAINTENANCE/REFURBISHING*
PERFORMED WHERE? (CHECK ONE)

- A. ☐ IN-SITU (VALVE REMAINS IN PLACE)
 B. ☐ ON-SITE (VALVE IS REMOVED FROM INSTAL- LATION BUT REMAINS ON PLANT SITE)
 C. ☒ OFF-SITE

N52. MAINTENANCE/REFURBISHING*
PERFORMED BY WHOM? (CHECK ONE)

- A. ☐ OPERATIONS
 B. ☐ MAINTENANCE
 C. ☒ CONTRACTOR - LAB. OR VENDOR

N53. CONTRACTOR, LAB. OR VENDOR*
(CHECK ONE ONLY IF ITEM N52 IS "C")

- C711 CROSBY VALVE & GAGE CO.
 D167 DIVERS
 B243 BREXER VALVE
 G282 GENERAL ELECTRIC CORP.
 D999 ORAND VALVE (S-VT INTRINS CODE)
 1020 TARGET TOR CORP.
 N136 WYLE LABS
 OTHER:

N65. MAINTENANCE/REFURBISHING
PERFORMED (SELECT AS MANY AS APPLICABLE)

- A. ☐ ACTUATION STAGES REPLACED
 B. ☐ TOPWORKS REPLACED WITH ONE OF SAME SETPOINT
 C. ☐ RELAP SEAT, BNC
 D. ☐ MACHINE PILOT VALVE DISC
 E. ☒ CLEAN & REMOVE PILOT ASSEMBLIES
 F. ☐ SETPOINT ADJUSTMENT
 G. ☐ VALVE INHIBIT BONE SIZE INCREASED
 H. ☐ SOLENOID ASSEMBLY REMOVED, REINSTALLED
 I. ☐ REGURFICE STEAM BLOWDOWN UNIFILL
 J. ☐ REPLACE PISTON RINGS
 K. ☐ REPLACE "U"-RINGS
 L. ☐ REPLACE DIAPHRAGM(S)
 M. ☐ REPLACE/REPAIR BELLOW(S)
 N. ☐ REPLACE/REPAIR GASKET(S)
 O. ☐ REPLACE/REPAIR SPRING(S)
 OTHER (EXPLAIN IN NARRATIVE)

OBSERVED DAMAGE/CAUSE OF FAILURE (CHECK AS MANY AS APPLICABLE IN EACH COLUMN)
ANSWER BOTH N55 AND N56. IF A FAILURE HAS OCCURRED, DO NOT ANSWER N56 IF NO FAILURE HAS OCCURRED.

N55.	N56.	CAUSE OF FAILURE/ DAMAGE RESULTING FROM FAILURE (IF FAILURE HAS OCCURRED)
A.		PILOT DISC STEAM CUT OR DAMAGED
B.		PISTON RINGS WORN, DAMAGED
C.		DAMAGE TO SEAT(S)
D.		FOREIGN MATERIAL (DIRT, LUBR) ON/UNDER SEAT
E.		DAMAGE TO 2ND STAGE PISTON
F.		SET POINT DRIFT - NOT DAMAGE RELATED
G.		DAMAGED SPRING(S)
H.		CASTING DEFECTS
I.		OTHER MANUFACTURING DEFECTS
J.		IMPROPER ASSEMBLY OR INSTALLATION, MISSING PARTS
K.		NORMAL WEAR
L.		DAMAGED "U"-RINGS (BEYOND NORMAL WEAR)
M.		DIAPHRAGM(S) DAMAGED
N.		GASKET(S) WORN BEYOND NORMAL, EXPECTED WEAR
O.		BELLOW(S) DAMAGED, WORN
P.		BROKEN AIR LINE
Q.		SOLENOID FAILURE
R.		FAILURE OF AIR OPERATOR ASSEMBLY
S.		OTHER (EXPLAIN IN NARRATIVE)
T.		
U.		
V.		
W.		
X.		
Y.		
Z.		

NO DAMAGE EXCEPT THAT DIRECTLY RELATING TO FAILURE

N60. DETAILS OF OBSERVED DAMAGE/CAUSE OF FAILURE NARRATIVE:

SRVS

MAINTENANCE ACTIVITY (CONT'D.)

PLANT DOCKET # 50- 450

PAGE 4 OF 4

S/R VALVE SERIAL NUMBER N63800-00-0123

N70. DETAILS OF MAINTENANCE/REFURBISHING NARRATIVE: SCHEDULED REMOVAL AND REPLACEMENT OF THESE SRV's DURING RE-4. ALL REFURBISHMENT AND TESTING PERFORMED PRIOR TO INSTALLATION. TESTING PERFORMED DOCUMENTED ON STP-000-3606 AND STP-202-0602 DATED 9-8-92.

N80. DATE TESTED AFTER REASSEMBLY (MO/DA/YR) 9-8-92

N81. TEST REPORT NUMBERS FOR POST REASSEMBLY BENCH TESTS:

POST REASSEMBLY BENCH TEST RESULTS (ONLY THOSE WHICH MEASURE PERTINENT PARAMETERS SUCH AS SET POINT, RESEAT PRESSURE, ETC.)

N84. TEST TYPE CODE (SELECT ONE PER LINE)	N85. PARAMETER MEASURED CODE (SELECT ONE PER LINE)	N86. NUMERICAL RESULTS OF TEST INCLUDE UNITS (OR GIVE "NO LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS)	N87. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			

N90. DATE REINSTALLED IN SERVICE (MO/DA/YR)

* BEFORE 9-4-92

N91. COMPONENT ID WHERE VALVE REINSTALLED (OR "5" IF STORED OR "D" IF DISPOSED)

CODES

N84. TYPE TEST CODE:

- A. SET POINT TEST - STEAM
- B. SET POINT TEST - N₂ (NITROGEN)
- C. OPERATIONAL RELIEF TEST - STEAM
- D. OPERATIONAL RELIEF TEST - N₂
- E. LEAK TEST - STEAM
- F. LEAK TEST - N₂
- X. OTHER

N85. PARAMETER MEASURED CODE (SELECT ONE PARAMETER PER TEST. IF MORE THAN ONE PARAMETER IS MEASURED IN A TEST, REPEAT TEST TYPE CODE.)

- A. SET POINT - LIFT PRESSURE
- B. RESEAT - RECLOSE PRESSURE
- C. VALVE OPENING DELAY TIME - MANUAL MODE
- D. VALVE OPENING DELAY TIME - AUTOMATIC MODE
- E. MAIN DISC OPENING STROKE TIME - NORMAL MODE
- F. MAIN DISC OPENING STROKE TIME - AUTOMATIC MODE
- G. PILOT STAGE SEAT TIGHTNESS
- H. MAIN STAGE SEAT TIGHTNESS
- J. FLANGED CONNECTION GASKET LEAKAGE
- X. OTHER

Prepared by: John Murray
Approved by: S.H. Delaney

MAINTENANCE ACTIVITY

400. PLANT DOCKET #50- 458

NOTE: MUST BE COMPLETED EACH TIME MAINTENANCE IS DONE ON ANY VALVE. INCLUDES ANY RELOCATION OF ANY VALVE.

401. S/R VALVE SERIAL NUMBER N63800-00-0120

402. PLANT'S COMPONENT ID PRIOR TO MAINT. (OR "S" IF FROM STORAGE) 1B21 RRVESIC

403. TYPE OF MAINTENANCE CODE

- A. ☒ SCHEDULED/ROUTINE MAINTENANCE - NO FAILURE REQUIRING MAINTENANCE HAS OCCURRED SINCE LAST MAINTENANCE PERIOD
B. ☐ NON-IMMEDIATE MAINTENANCE - SCHEDULED FOR NEXT OUTAGE AFTER A NON-CATASTROPHIC FAILURE OCCURRED
C. ☐ UNSCHEDULED/IMMEDIATE MAINTENANCE - A FAILURE OCCURRED THAT REQUIRED IMMEDIATE MAINTENANCE BE PERFORMED
D. ☒ VALVE RELOCATION REPORT ONLY - VALVE INSTALLED WITH NO MAINTENANCE PERFORMED.

404. TYPE REPORT

- A. ☒ COMPLETE
B. ☐ INCOMPLETE - MAINTENANCE DETAILS LATER
C. ☐ ADDITIONS TO PREVIOUSLY INCOMPLETE REPORT
D. ☐ REVISIONS TO PREVIOUSLY COMPLETED REPORT

NOTE: FOR C. AND D., ITEMS 401 AND 402 MUST MATCH THOSE ON REPORT TO BE AMENDED.

NOTE: IF MAINTENANCE IS ASSOCIATED WITH ANY FAILURE, COMPLETE ITEMS 410 THROUGH 419. IF NO FAILURE HAS OCCURRED, CONTINUE FROM ITEM 420.

410. DATE OF FAILURE (Mo/Da/Yr)

411. AUTOMATIC PRESSURE SWITCH OPERABLE?

412. ELECTRIC POWER SUPPLY AVAILABLE?

☐ YES OR ☐ NO

☐ YES OR ☐ NO

413. VOLTAGE OF ELECTRIC POWER SUPPLY

415. MODE(S) OF FAILURE DETECTION (CHECK AS MANY AS APPLICABLE)

416. EFFECT OF FAILURE ON PLANT CODE (CHECK ONE ONLY)

418. TYPE FAILURE (CHECK AS MANY AS APPLICABLE)

- A. ☐ TAILPIPE THERMOCOUPLE READING HIGH
B. ☐ ANNUNCIATOR - TAILPIPE PRESSURE SWITCH
C. ☐ PANEL INDICATOR LIGHTS
D. ☐ DROP IN ELECTRICAL OUTPUT
E. ☐ STEAM-PROD. FLOW MISMATCH
F. ☐ IMBALANCE IN STEAM FLOW AMONG STEAM LINES
G. ☐ RISE IN SUPPRESSION POOL TEMPERATURE
H. ☐ RISE IN SUPPRESSION POOL LEVEL
I. ☐ SIGHT TRANSMISSION DROP IN VESSEL LEVEL
J. ☐ RADIATION MONITORS
K. ☐ ACOUSTIC MONITORS
L. ☐ DIRECT-MOUNTED S/R POSITION INDICATOR
M. ☐ INDIRECT-MOUNTED S/R POSITION INDICATOR
N. ☐ OTHER (EXPLAIN IN ITEM 419)

- A. ☐ TRIPPED PREMATURELY -
B. ☐ TRIPPED BELOW SETPOINT
C. ☐ TRIPPED PAST SETPOINT
D. ☐ FAILED TO TRIP
E. ☐ FAILED TO RECLOSE
F. ☐ TRIPPED TO FULLY RESTART
G. ☐ LEAKAGE (OTHER THAN MINOR)
H. ☐ INADEQUATE OPENING OF S/R VALVE
I. ☐ OTHER (EXPLAIN IN ITEM 419)

- A. ☐ POWER REDUCTION
B. ☐ TUBING TRIP
C. ☐ MANUAL SCRAM
D. ☐ AUTOMATIC SCRAM
E. ☐ EXTENSION OF PRE-EXISTING SHUTDOWN
F. ☐ MANUAL SHUTDOWN
G. ☐ NO SIGNIFICANT EFFECT

417. TEMP. OF ENVIRONMENT AROUND S/R VALVE (IF AVAILABLE)

"F"

419. WERE THERE ANY ATTACHMENTS (EVD, POSITION INDICATOR, ETC.) ATTACHED TO S/R VALVE NOT DEPICTED ON ORIGINAL "AS FURNISHED" VALVE? IF SO, SPECIFY WHAT AND WHEN ATTACHED. REFERENCE TESTS PERFORMED TO VERIFY COMPATIBILITY WITH VALVE PERFORMANCE:

SRVS

MAINTENANCE ACTIVITY (CONT'D.)

PLANT DOCKET # 50 458 PAGE 2 OF 4

S/R VALVE SERIAL NUMBER N43B00-00-0120

419. DESCRIPTION OF FAILURE, INCLUDING DETECTION MODE: N/A

420. DATE REMOVED FROM SERVICE (Mo/Da/Yr) _____

"AS FOUND" TESTS PERFORMED PRIOR TO DISASSEMBLY:

434. TEST TYPE CODE (SELECT ONE PER LINE)	435. PARAMETER MEASURED CODE (SELECT ONE PER LINE)	436. NUMERICAL RESULTS OF TESTS - INCLUDE UNITS OR GIVE LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS	437. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____

438. TYPE TEST CODE:

- A. SET POINT TEST - STEAM
 B. SET POINT TEST - N₂ (NITROGEN)
 C. OPERATIONAL RELIEF TEST - STEAM
 D. OPERATIONAL RELIEF TEST - N₂
 E. LEAK TEST - STEAM
 F. LEAK TEST - N₂
 G. OTHER

435. PARAMETER MEASURED CODE (SELECT ONE PARAMETER PER TEST. IF MORE THAN ONE PARAMETER IS MEASURED IN A TEST, REPEAT TEST TYPE CODE.)

- A. SET POINT - LIFT PRESSURE
 B. RESET - RECLOSE PRESSURE
 C. VALVE OPENING DELAY TIME - MANUAL MODE
 D. VALVE OPENING DELAY TIME - AUTOMATIC MODE
 E. MAIN DISC OPENING STROKE TIME - MANUAL MODE
 F. MAIN DISC OPENING STROKE TIME - AUTOMATIC MODE
 G. PILOT STAGE SEAT TIGHTNESS
 H. MAIN STAGE SEAT TIGHTNESS
 I. FLANGED CONNECTION GASKET LEAKAGE
 J. OTHER

ACTUATION STAGES REPLINED
TOPWORKS REPLACED WITH ONE OF SAME SETPOINT
RELAY SET, BISC
MACHINE PILOT VALVE DIBC
CLEAN & REWORK PILOT ASSEMBLIES
SETPOINT ADJUSTMENT
VALVE TIGHTEN BORE
SOLENOID ASSEMBLY REMOVED, REINSALLED
REFILLING CLEAN BLOWDOWN AIRFILL
REPLACE PISTON RINGS
REPLACE CYLINDER
REPLACE DIAPHRAGM(S)
REPLACE/REPAIR BELLOWS
REPLACE/REPAIR SECT(S)
REPLACE/REPAIR SPRING(S)
OTHER (EXPLAIN IN NARRATIVE)

460. DETAILS OF OBSERVED DAMAGE / CAUSE OF FAILURE NARRATIVE:

SRVS

MAINTENANCE ACTIVITY (CONT'D.)

PLANT DCKET # 50-458 PAGE 4 OF 4
S/R VALVE SERIAL NUMBER N63800-00-0120

N70. DETAILS OF MAINTENANCE/REFURBISHING NARRATIVE: SCHEDULED REMOVAL AND REPLACEMENT OF THESE SRV's DURING RF-4. ALL REFURBISHMENT AND TESTING PERFORMED PRIOR TO INSTALLATION. TESTING PERFORMED DOCUMENTED ON SIP-000-3606 AND SIP-202-Q602 DATED 9-8-92.

N80. DATE TESTED AFTER REASSEMBLY (Mo/Da/Yr)		N81. TEST REPORT NUMBERS FOR POST REASSEMBLY BENCH TESTS:	
9-8-92			
POST REASSEMBLY BENCH TEST RESULTS (ONLY THOSE WHICH MEASURE PERTINENT PARAMETERS SUCH AS SET POINT, RESET PRESSURE, ETC.)			
N84. TEST TYPE CODE (SELECT ONE PER LINE)	N85. PARAMETER MEASURED CODE (SELECT ONE PER LINE)	N86. NUMERICAL RESULTS OF TEST - INCLUDE UNITS (OR GIVE LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS)	N87. RESULTS OF TEST - ACCEPTABLE? "YES" OR "NO"
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			

N88. TYPE TEST CODE:	
A.	SET POINT TEST - STEAM
B.	SET POINT TEST - N ₂ (NITROGEN)
C.	OPERATIONAL RELIEF TEST - STEAM
D.	OPERATIONAL RELIEF TEST - N ₂
E.	LEAK TEST - STEAM
F.	LEAK TEST - N ₂
X.	OTHER

N89. CODES	
PARAMETER MEASURED CODE (SELECT ONE PARAMETER PER TEST - IF MORE THAN ONE PARAMETER IS MEASURED IN A TEST, REPEAT TEST TYPE CODE.)	
A.	SET POINT - LIFT PRESSURE
B.	RESET - RECLOSE PRESSURE
C.	VALVE OPENING DELAY TIME - MANUAL MODE
D.	VALVE OPENING DELAY TIME - AUTOMATIC MODE
E.	MAIN DISC OPENING STROKE TIME - MANUAL MODE
F.	MAIN DISC OPENING STROKE TIME - AUTOMATIC MODE
G.	PILOT STAGE SEAT TIGHTNESS
H.	MAIN STAGE SEAT TIGHTNESS
J.	FLAGGED CONNECTION GASKET LEAKAGE
X.	OTHER

N90. DATE REINSTALLED IN SERVICE (Mo/Da/Yr)		N91. COMPONENT ID WHERE VALVE REINSTALLED (OR "5" IF STORED OR "Q" IF DISPOSED)	
* BEFORE 9-4-92			

Prepared by: John Murray
Approved by: G.M. Doherty

SRVS

MAINTENANCE ACTIVITY

NOO. PLANT DOCKET #50- 458

PAGE 1 OF 4

NOTE: MUST BE COMPLETED EACH TIME MAINTENANCE IS DONE ON ANY VALVE. INCLUDES ANY RELOCATION OF ANY VALVE.

NO1. S/R VALVE SERIAL NUMBER N63800-00-0047

NO2. PLANT'S COMPONENT ID TAG
TO PLANT, FOR "S" IF FROM STORAGE 1B21 RBVFC51D

NO3. TYPE OF MAINTENANCE CODE

- A. ☒ SCHEDULED/ROUTINE MAINTENANCE - NO FAILURE REQUIRING MAINTENANCE HAS OCCURRED SINCE LAST MAINTENANCE PERIOD
B. ☐ NON-ROUTINE MAINTENANCE - SCHEDULED FOR NEXT OUTAGE
C. ☐ AFTER A NON-CATASTROPHIC FAILURE OCCURRED
D. ☐ UNSCHEDULED/IMMEDIATE MAINTENANCE - A FAILURE OCCURRED THAT REQUIRED IMMEDIATE MAINTENANCE OR PERFORMED VALVE RELOCATION REPORT ONLY - VALVE INSTALLED WITH NO MAINTENANCE PERFORMED.

NO4. TYPE REPORT

- A. ☒ COMPLETE
B. ☐ INCOMPLETE - MAINTENANCE DETAILS LATER
C. ☐ ADDITIONS TO PREVIOUSLY INCOMPLETE REPORT
D. ☐ REVISIONS TO PREVIOUSLY COMPLETED REPORT

NOTE: FOR C. AND D., ITEMS NO3 AND NO2 MUST MATCH THOSE ON REPORT TO BE APPROVED.

NOTE: IF MAINTENANCE IS ASSOCIATED WITH ANY FAILURE, COMPLETE ITEMS NO10 THROUGH NO13. IF NO FAILURE HAS OCCURRED, CONTINUE FROM ITEM NO14.

NO10. DATE OF FAILURE (Mo/Da/Yr)

NO11. AUTOMATIC PRESSURE SWITCH OPERABLE?

NO12. ELECTRIC POWER SUPPLY AVAILABLE?

☐ YES OR ☐ NO

☐ YES OR ☐ NO

NO13. VOLTAGE OF ELECTRIC POWER SUPPLY

NO15. MODE(S) OF FAILURE DETECTION
(CHECK AS MANY AS APPLICABLE)

NO16. EFFECT OF FAILURE ON PLANT CODE
(CHECK ONE ONLY)

NO19. TYPE FAILURE
(CHECK AS MANY AS APPLICABLE)

- A. ☐ TAILPIPE IMPOUNCE READING HIGH
B. ☐ IMPOUNCE READING - TAILPIPE PRESSURE SWITCH
C. ☐ PANEL INDICATION - LIGHTS
D. ☐ PROOF IN ELECTRICAL OUTPUT
E. ☐ STEAM-FEED FLOW MISMATCH
F. ☐ IMPOUNCE IN STEAM FLOW AROUND STEAM LINES
G. ☐ RISE IN SUPPRESSION POOL TEMPERATURE
H. ☐ RISE IN SUPPRESSION POOL LEVEL
I. ☐ SLIGHT TRANSIENT DROP IN VESSEL LEVEL
J. ☐ RADIATION MONITOR(S)
K. ☐ ACOUSTIC MONITOR(S)
L. ☐ DIRECT-INDICATED S/R POSITION INDICATOR
M. ☐ EMERGENCY-INDICATED S/R POSITION INDICATOR
N. ☐ OTHER (EXPLAIN IN ITEM NO19)

- A. ☐ POWER REJECTION
B. ☐ TURBINE STOP
C. ☐ MANUAL SCRAM
D. ☐ AUTOMATIC SCRAM
E. ☐ EXTENSION OF PRE-EXISTING SCRAM
F. ☐ MANUAL SCRAM
G. ☐ NO SIGNIFICANT EFFECT

NO17. TYPE OF ENVIRONMENTAL RECORDS
S/R VALVE (IF AVAILABLE)

NO17. TYPE OF ENVIRONMENTAL RECORDS
S/R VALVE (IF AVAILABLE)

NO18. WERE THERE ANY ATTACHMENTS (LEVEL, POSITION INDICATOR, ETC.) ATTACHED TO S/R VALVE NOT DEPICTED ON ORIGINAL "AS FURNISHED" VALVE? IF SO, SPECIFY WHAT AND WHEN ATTACHED. REFERENCE TESTS PERFORMED TO VERIFY COMPATIBILITY WITH VALVE PERFORMANCE:

SRVS

MAINTENANCE ACTIVITY (CONT'D.)

PLANT DOCKET # 50-458
S/R VALVE SERIAL NUMBER N63800-00-0247

419. DESCRIPTION OF FAILURE, INCLUDING DETECTION POINT: N/A

410. DATE REMOVED FROM SERVICE (Mo/Da/Yr)	
"AS FOUND" TESTS PERFORMED PRIOR TO DISASSEMBLY:	
419. TEST TYPE CODE (SELECT ONE PER TIME)	420. TYPE TEST CODE
1. _____	A. SET POINT TEST - STEAM
2. _____	B. SET POINT TEST - N ₂ (NITROGEN)
3. _____	C. OPERATIONAL RELIEF TEST - STEAM
4. _____	D. OPERATIONAL RELIEF TEST - N ₂
5. _____	E. LEAK TEST - STEAM
6. _____	F. LEAK TEST - N ₂
7. _____	G. OTHER
8. _____	
9. _____	
10. _____	
11. _____	
12. _____	
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93. _____	
94. _____	
95. _____	
96. _____	
97. _____	
98. _____	
99. _____	
100. _____	

N51. MAINTENANCE/REPAIRS/REWORKS
PERFORMED (CHECK ONE)

- A. ☐ IN SITE (VALVE REMAINS IN PLACE)
B. ☐ ON-SITE (VALVE IS REMOVED FROM INSTALLATION BUT REMAINS ON PLANT SITE)
C. ☒ OFF-SITE

N52. MAINTENANCE/REPAIRS/REWORKS
PERFORMED BY WHOM? (CHECK ONE)

- A. ☐ OPERATIONS
B. ☐ MAINTENANCE
C. ☒ CONTRACTOR, LAB, OR VENDOR

N53. CONTRACTOR, LAB, OR VENDOR
(CHECK ONE ONLY IF ITEM N52 IS "C")

- C711 ☒ CROSSBY VALVE & GAGE CO.
D167 ☐ DRESSER VALVE
D701 ☐ DRESSER VALVE
G062 ☐ GENERAL ELECTRIC CORP.
Q999 ☐ QUARD VALVE (NOT REID'S CODE)
T070 ☐ TARGET TOOL CORP.
N516 ☐ WYLE LABS
OTHER: _____

N55., N56. OBSERVED DAMAGE/CAUSE OF FAILURE (CHECK AS MANY AS APPLICABLE IN EACH COLUMN)
ANSWER BOTH N55. AND N56. IF A FAILURE HAS OCCURRED. DO NOT ANSWER N56 IF NO FAILURE HAS OCCURRED.

N55.	N56.	CAUSE OF FAILURE/ DAMAGE RESULTING FROM FAILURE (IF FAILURE HAS OCCURRED)
A.		
B.		
C.		
D.		
E.		
F.		
G.		
H.		
I.		
J.		
K.		
L.		
M.		
N.		
O.		
P.		
Q.		
R.		
S.		
T.		
U.		
V.		
W.		
X.		
Y.		
Z.		

NO DAMAGE EXCEPT THAT DIRECTLY RELATING TO FAILURE

N60. DETAILS OF OBSERVED DAMAGE/CAUSE OF FAILURE NARRATIVE:

N65. MAINTENANCE/REPAIRS/REWORKS
PERFORMED (SELECT AS MANY
AS APPLICABLE)

- A. ☐ ACTUATION STAGES REPLACED
B. ☐ FORMER REPLACED WITH ONE OF SAME SETPOINT
C. ☐ RELAP SEAT, DISC
D. ☐ MACHINE PILOT VALVE DISC
E. ☐ CLEAN & REMOVED PILOT ASSEMBLY
F. ☐ SETPOINT ADJUSTMENT
G. ☐ VALVE INQUIRY BORE SIZE INCREASED
H. ☐ SOLENOID ASSEMBLY REMOVED, REINSTALLED
I. ☐ REOPIFFICE STEAM BLOWDOWN UNITILE
J. ☐ REPLACE PILOT BORE(S)
K. ☐ REPLACE "U"-RING(S)
L. ☐ REPLACE DIAPHRAGM(S)
M. ☐ REPLACE/REPAIR BELLOW
N. ☐ REPLACE/REPAIR GASKET(S)
O. ☐ REPLACE/REPAIR SPRING(S)
P. ☐ OTHER (EXPLAIN IN NARRATIVE)

SRVS

MAINTENANCE ACTIVITY (CONT'D.)

PLANT DOCKET # 50-458

PAGE 4 OF 4

S/R VALVE SERIAL NUMBER N63B007-00-0047

470. DETAILS OF MAINTENANCE/REFINISHING NARRATIVE: SCHEDULED REMOVAL AND REPLACEMENT OF THESE SRV's DURING RF-4. ALL REFURBISHMENT AND TESTING PERFORMED PRIOR TO INSTALLATION. TESTING PERFORMED DOCUMENTED ON SIP-000-3606 AND SIP-202-0602 DATED 9-8-92.

480. DATE TESTED AFTER REASSEMBLY (Mo/Da/Yr) 9-8-92

481. TEST REPORT NUMBERS FOR POST REASSEMBLY BENCH TESTS:

POST REASSEMBLY BENCH TEST RESULTS (ONLY THOSE WHICH MEASURE PERTINENT PARAMETERS SUCH AS SET POINT, RESEAT PRESSURE, ETC.)

484. TEST TYPE CODE (SELECT ONE PER LINE)

485. PARAMETER MEASURED CODE (SELECT ONE PER LINE)

486. NUMERICAL RESULTS OF TEST INCLUDE UNITS (OR GIVE LEAKAGE RATE OR WHITE "NO LEAK" FOR LEAKAGE TESTS)

487. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

490. DATE REINSTALLED IN SERVICE (Mo/Da/Yr)

*BEFORE 9-4-92

491. COMMENT IF MORE VALVE REINSTALLED (or "S" IF STORED OR "D" IF DISPOSED)

CODES

484. TYPE TEST CODE:

- A. SET POINT TEST - STEAM
- B. SET POINT TEST - N₂ (INERTIGEN)
- C. OPERATIONAL RELIEF TEST - STEAM
- D. OPERATIONAL RELIEF TEST - N₂
- E. LEAK TEST - STEAM
- F. LEAK TEST - N₂
- N. OTHER

485.

PARAMETER MEASURED CODE (SELECT ONE PARAMETER PER TEST. IF MORE THAN ONE PARAMETER IS MEASURED IN A TEST, REPEAT TEST TYPE CODE.)

- A. SET POINT - LIFT PRESSURE
- B. RESEAT - RECLOSE PRESSURE
- C. VALVE OPENING DELAY TIME
- D. VALVE OPENING DELAY TIME
- E. VALVE OPENING DELAY TIME
- F. VALVE OPENING DELAY TIME
- G. VALVE OPENING DELAY TIME
- H. VALVE OPENING DELAY TIME
- I. VALVE OPENING DELAY TIME
- J. VALVE OPENING DELAY TIME
- K. VALVE OPENING DELAY TIME
- L. VALVE OPENING DELAY TIME
- M. VALVE OPENING DELAY TIME
- N. VALVE OPENING DELAY TIME
- O. VALVE OPENING DELAY TIME
- P. VALVE OPENING DELAY TIME
- Q. VALVE OPENING DELAY TIME
- R. VALVE OPENING DELAY TIME
- S. VALVE OPENING DELAY TIME
- T. VALVE OPENING DELAY TIME
- U. VALVE OPENING DELAY TIME
- V. VALVE OPENING DELAY TIME
- W. VALVE OPENING DELAY TIME
- X. VALVE OPENING DELAY TIME
- Y. VALVE OPENING DELAY TIME
- Z. VALVE OPENING DELAY TIME

Prepared by: John Murray
Approved by: G.M. Delaney

SRVS

MAINTENANCE ACTIVITY

400. PLANT DOCKET #50-450

PAGE 1 OF 6

NOTE: MUST BE COMPLETED EACH TIME MAINTENANCE IS DONE ON ANY VALVE. INCLUDES ANY RELOCATION OF ANY VALVE.

401. S/R VALVE SERIAL NUMBER N63800-00-0121

402. PLANT'S COMPONENT ID PRIOR TO MAINT. (or 50 IF FROM STORAGE)

1BZ1/RVCO51G

403. TYPE OF MAINTENANCE CODE

- A. ☒ SCHEDULED/ROUTINE MAINTENANCE - NO FAILURE REQUIRING MAINTENANCE HAS OCCURRED SINCE LAST MAINTENANCE PERIOD
B. ☐ NON-IMMEDIATE MAINTENANCE - SCHEDULED FOR NEXT OUTAGE AFTER A NON-CATASTROPHIC FAILURE OCCURRED
C. ☐ UNSCHEDULED/IMMEDIATE MAINTENANCE - A FAILURE OCCURRED THAT REQUIRED IMMEDIATE MAINTENANCE BE PERFORMED
D. ☒ VALVE RELOCATION REPORT ONLY - VALVE INSTALLED WITH NO MAINTENANCE PERFORMED.

404. TYPE REPORT

- A. ☒ COMPLETE
B. ☐ INCOMPLETE MAINTENANCE DETAILS LATER
C. ☐ ADDITIONS TO PREVIOUSLY INCOMPLETE REPORT
D. ☐ REVISIONS TO PREVIOUSLY COMPLETED REPORT

NOTE: FOR C. AND D., ITEMS 401 AND 402 MUST MATCH THOSE ON REPORT TO BE APPENDED.

NOTE: IF MAINTENANCE IS ASSOCIATED WITH ANY FAILURE, COMPLETE ITEMS 410 THROUGH 417. IF NO FAILURE HAS OCCURRED, CONTINUE FROM ITEM 418.

410. DATE OF FAILURE (Mo/Da/Yr)

411. AUTOMATIC PRESSURE SWITCH OPERABLE?

412. ELECTRIC POWER SUPPLY AVAILABLE?

☐ YES OR ☐ NO

☐ YES OR ☐ NO

413. VOLTAGE OF ELECTRIC POWER SUPPLY

415. POINT(S) OF FAILURE DETECTION (CHECK AS MANY AS APPLICABLE)

416. EFFECT OF FAILURE ON PLANT CODE (ENTER ONE ONLY)

419. TYPE FAILURE (CHECK AS MANY AS APPLICABLE)

- A. ☐ TAILPIPE INTERCOUPLER READING HIGH
B. ☐ AMMUNITION - TAILPIPE PRESSURE SWITCH
C. ☐ PANEL INDICATION LIGHTS
D. ☐ DROP IN ELECTRICAL OUTPUT
E. ☐ STEAM FEED FLOW MISMATCH
F. ☐ INCREASE IN STEAM FLOW AMONG STEAM LINES
G. ☐ RISE IN SUPPRESSION POOL TEMPERATURE
H. ☐ RISE IN SUPPRESSION POOL LEVEL
I. ☐ SIGHT TRANSMITT DROP IN VESSEL LEVEL
J. ☐ RADIATION MONITOR(S)
K. ☐ ACOUSTIC MONITOR(S)
L. ☐ DIRECT-MOUNTED S/R POSITION INDICATOR
M. ☐ INDIRECT-MOUNTED S/R POSITION INDICATOR
N. ☐ OTHER (EXPLAIN IN ITEM 419)

- A. ☐ POWER REDUCTION
B. ☐ TURBINE TRIP
C. ☐ MANUAL SCRAM
D. ☐ AUTOMATIC SCRAM
E. ☐ EXTENSION OF PRE-EXISTING SHUTDOWN
F. ☐ MANUAL SHUTDOWN
G. ☐ NO SIGNIFICANT EFFECT

- A. ☐ TRIPPED PREMATURELY -
B. ☐ TRIPPED BELOW SETPOINT
C. ☐ TRIPPED PAST SETPOINT
D. ☐ FAILED TO TRIP
E. ☐ FAILED TO RECLOSE
F. ☐ LEAKAGE (OTHER THAN MISHAP)
G. ☐ INADVERTENT OPENING OF S/R VALVE
H. ☐ OTHER (EXPLAIN IN ITEM 419)

417. TIME OF ENVIRONMENT AROUND S/R VALVE (IF AVAILABLE)

418. WERE THERE ANY ATTACHMENTS (LVDT, POSITION INDICATOR, ETC.) ATTACHED TO S/R VALVE NOT DEPICTED ON ORIGINAL "AS FURNISHED" VALVE? IF SO, SPECIFY WHAT AND WHEN ATTACHED. REFERENCE TESTS PERFORMED TO VERIFY COMPATIBILITY WITH VALVE PERFORMANCE:

SRVS

MAINTENANCE ACTIVITY (CONT'D.)

PLANT DOC# 50-450

S/R VALVE SERIAL NUMBER N63800-00-0121

619. DESCRIPTION OF FAILURE, INCLUDING DETECTION MODE: N/A

620. DATE REMOVED FROM SERVICE (Mo/Da/Yr) _____

"AS FOUND" TESTS PERFORMED PRIOR TO DISASSEMBLY:

620. TEST TYPE CODE (SELECT ONE PER LINE)	625. PARAMETER MEASURED CODE (SELECT ONE PER LINE)	630. NUMERICAL RESULT OR TESTS - INCLUDE UNITS OR GIVE LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS	635. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____

630. TYPE TEST CODE:

635. PARAMETER MEASURED CODE (SELECT ONE PER LINE):

640. TEST TYPE CODE (SELECT ONE PER LINE):

645. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"

650. LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS

655. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"

660. LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS

665. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"

670. LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS

675. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"

680. LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS

685. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"

690. LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS

695. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"

700. LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS

705. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"

710. LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS

715. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"

720. LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS

725. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"

730. LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS

735. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"

740. LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS

745. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"

750. LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS

755. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"

760. LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS

765. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"

770. LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS

775. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"

780. LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS

785. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"

790. LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS

795. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"

800. LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS

805. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"

810. LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS

815. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"

820. LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS

825. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"

830. LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS

835. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"

840. LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS

845. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"

850. LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS

855. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"

860. LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS

865. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"

870. LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS

875. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"

880. LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS

885. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"

890. LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS

895. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"

900. LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS

905. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"

910. LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS

915. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"

920. LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS

925. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"

930. LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS

935. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"

940. LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS

945. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"

950. LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS

955. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"

960. LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS

965. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"

970. LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS

975. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"

980. LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS

985. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"

990. LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS

995. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"

SRVS

Prepared By: John M. Mullen
Approved By: G. M. Delaney

MAINTENANCE ACTIVITY (CONT'D.)

PLANT TICKET #50 458

S/R VALVE SERIAL NUMBER N63800-00-0121

451. MAINTENANCE/REFURBISHING
PERFORMED WHERE? (CHECK ONE)

- A. ☐ IN PLACE
- B. ☐ ON-SITE VALVE IS
REMOVED FROM INSTAL-
LATION BUT REMAINS
ON PLANT SITE
- C. ☒ OFF-SITE

452. MAINTENANCE/REFURBISHING
PERFORMED BY WHOM? (CHECK ONE)

- A. ☐ OPERATIONS
- B. ☐ MAINTENANCE
- C. ☒ CONTRACTOR, LAB,
OR VENDOR

453. CONTRACTOR, LAB, OR VENDOR
(CHECK ONE ONLY IF ITEM 452
IS "C")

- C711 ☒ CROSBY VALVE & GAGE CO.
- B167 ☐ BIRBER
- B791 ☐ BREWER VALVE
- G082 ☐ GENERAL ELECTRIC COMP.
- 0999 ☐ ORAND VALVE (NOT INRDS CODE)
- 1020 ☐ TARGET TOOL COMP.
- M136 ☐ MYLE LABS
- OTHER: ☐

455. 456. OBSERVED DAMAGE/CAUSE OF FAILURE (CHECK AS MANY AS APPLICABLE IN EACH COLUMN)
ANSWER BOTH 455 AND 456. IF A FAILURE HAS OCCURRED, DO NOT ANSWER 456 IF
NO FAILURE HAS OCCURRED.OBSERVED
DAMAGE
RELATING TO
ANY FAILUREA. ☐ B. ☐ C. ☐ D. ☐ E. ☐ F. ☐ G. ☐ H. ☐ I. ☐ J. ☐ K. ☐ L. ☐ M. ☐ N. ☐ O. ☐ P. ☐ Q. ☐ R. ☐ S. ☐ T. ☐ U. ☐ V. ☐ W. ☐ X. ☐ Y. ☐ Z.CAUSE OF FAILURE/
DAMAGE RESULTING
FROM FAILURE (IF
FAILURE HAS OCCURRED)A. ☐ PILOT DISC STEAM CUT OR DAMAGED
B. ☐ PISTON RINGS WORN, DAMAGED
C. ☐ DAMAGE TO SEALS
D. ☐ FOREIGN MATERIAL (MUD, LUB) ON/UNDER SEAT
E. ☐ DAMAGE TO 2ND STAGE PISTON
F. ☐ SET POINT DIFF. - NOT DAMAGE RELATED
G. ☐ DAMAGED SPRINGS
H. ☐ LASTING DEFECTS
I. ☐ OTHER MANUFACTURING DEFECTS
J. ☐ IMPROPER ASSEMBLY OR INSTALLATION, MISSING PARTS
K. ☐ NORMAL WEAR
L. ☐ DAMAGED "U"-RINGS (BEYOND NORMAL WEAR)
M. ☐ DIAPHRAGM(S) DAMAGED
N. ☐ GASKET(S) WORN BEYOND NORMAL, EXPECTED WEAR
O. ☐ BELLON(S) DAMAGED, WORN
P. ☐ BROKEN AIR LINE
Q. ☐ SOLENOID FAILURE
R. ☐ FAILURE OF AIR OPERATOR ASSEMBLY
S. ☐ OTHER (EXPLAIN IN NARRATIVE)

NO DAMAGE EXCEPT THAT DIRECTLY RELATING TO FAILURE

460. DETAILS OF OBSERVED DAMAGE/CAUSE OF FAILURE NARRATIVE:

465. MAINTENANCE/REFURBISHING
PERFORMED (SELECT AS MANY
AS APPLICABLE)

- A. ☐ ACTUATION STAGES REPLACED
- B. ☐ TOPWERS REPLACED WITH ONE OF SAME SETPOINT
- C. ☐ REAR SEAT, DISC
- D. ☐ MACHINE PILOT VALVE DISC
- E. ☐ CLEAN & REWORK PILOT ASSEMBLIES
- F. ☐ SETPOINT ADJUSTMENT
- G. ☒ VALVE TIGHTEN BORE SIZE INCREASED
- H. ☐ SOLENOID ASSEMBLY
- I. ☐ EXORIFIC STEAM REMOVED, REINSTALLED
- J. ☐ REPLACE PISTON RINGS
- K. ☐ REPLACE "U"-RINGS
- L. ☐ REPLACE DIAPHRAGM(S)
- M. ☐ REPLACE/REPAIR BELLON(S)
- N. ☐ REPLACE/REPAIR GASKET(S)
- O. ☐ REPLACE/REPAIR SPRING(S)
- OTHER (EXPLAIN IN NARRATIVE)

SRVS

MAINTENANCE ACTIVITY (CONT'D.)

PLANT DOCKET # 50- 458

PAGE 4 OF 4

S/R VALVE SERIAL NUMBER N63800-00-0121

870. DETAILS OF MAINTENANCE/REFURBISHING NARRATIVE: SCHEDULED REMOVAL AND REPLACEMENT OF THESE SRV's DURING RF-4. ALL REFURBISHMENT AND TESTING PERFORMED PRIOR TO INSTALLATION. TESTING PERFORMED DOCUMENTED ON STP-000-3606 AND STP-202-0602 DATED 9-8-92.

880. DATE TESTED AFTER REASSEMBLY (MO/DA/YR)	881. TEST REPORT NUMBERS FOR POST REASSEMBLY BENCH TESTS:	882. TYPE TEST CODE:	CODES
9-8-92			
<p>POST REASSEMBLY BENCH TEST RESULTS (ONLY THOSE WHICH MEASURE PERTINENT PARAMETERS SUCH AS SET POINT, RESET PRESSURE, ETC.)</p>			
884. TEST TYPE CODE (SELECT ONE PER LINE)	885. PARAMETER MEASURED (SELECT ONE PER LINE)	886. NUMERICAL RESULTS OF TEST - INCLUDE UNITS (OR GIVE LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS)	887. RESULTS OF TEST - ACCEPTABLE? "YES" OR "NO"
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
<p>889. DATE REINSTALLED IN SERVICE (MO/DA/YR)</p> <p><u>* BEFORE 9-4-92</u></p>			
<p>891. COMPONENT ID MARKED VALVE REINSTALLED (OR "S" IF STORED OR "D" IF DISPOSED)</p>			

882. TYPE TEST CODE:

- A. SET POINT TEST - STEAM
 B. SET POINT TEST - P2 (INTEGRAL)
 C. OPERATIONAL RELIEF TEST - STEAM
 D. OPERATIONAL RELIEF TEST - N₂
 E. LEAK TEST - STEAM
 F. LEAK TEST - N₂
 X. OTHER

885. PARAMETER MEASURED CODE (SELECT ONE PARAMETER PER TEST. IF MORE THAN ONE PARAMETER IS MEASURED IN A TEST, REPEAT TEST TYPE CODE.)

- A. SET POINT - LEAK PRESSURE
 B. RESET - RECLOSURE PRESSURE
 C. VALVE OPENING DELAY TIME
 D. MANUAL MODE
 E. VALVE OPENING DELAY TIME
 F. AUTOMATIC MODE
 G. MAIN DISC OPENING STROKE TIME
 H. MAIN DISC OPENING STROKE TIME
 I. AUTOMATIC MODE
 J. PILOT STAGE SEAT TIGHTNESS
 K. MAIN STAGE SEAT TIGHTNESS
 L. FLANGED CONNECTION GASKET LEAKAGE
 X. OTHER

ATTACHMENT 2

MAIN STEAM SAFETY/RELIEF VALVE LEAKAGE LOG

(1 SHEET)

SRVS

Leakage Log

200. Plant Bucket # 50-458

Note: Up to Five Different Leakage Readings OR AS Many as Five Different Valves May be Reported on One Sheet

201. S/R Valve Serial Number	1. N63800-00-00A8	2. N63800-00-0121	3. N63800-00-0040	4. N63800-00-100	5.
202. Component ID (Location)	1821*RVF047C	1821*RVF051G	1821*RVF041A	1821*RVF047B	
203. Date (Mo/Da/Yr)	10-16-92	10-16-92	10-16-92	10-16-92	
204. Time (24 Hour Clock)	1503	1503	1503	1503	
205. Leakage Determination Method (CODE)	* I/H	I/H	I/H	I/H	
206. Tailpipe Temp. (°F) (Normal)	165-170°F	165-170°F	165-170°F	165-170°F	
207. Tailpipe Temp (°F) When Leak Detected	215°F	215°F	215°F	214°F	
208. Other Instrument Type and Units Read IN (CODE)	Y	Y	Y	Y	
209. Other Instrument Reading	—	—	—	—	
210. Reactor Pressure (PSIG)	1011 psig	1011 psig	1011 psig	1011 psig	
211. Reactor Power (% of Full Rated Thermal Power)	100%	100%	100%	100%	
212. Comments Attached? (Yes or No)	No	No	No	No	

Other Instrument - Type and Units Read In
 A. Acoustic Monitor, Milliamps
 B. Acoustic Monitor, Percent Valve Open
 C. Pressure Sensor, PSIG
 V. Other (Name Here)

208.

Codes: 205. Leakage Determination Method
 I. Tailpipe 16-210° Above Normal
 H. Other Method (Name Here)

Manufacturer Recommendation for
 Alert Range: above 215°F

Tail Pipe Temp (°F)

ATTACHMENT 3

MAIN STEAM SAFETY/RELIEF VALVE

ACTUATION EVENTS

(2 SHEETS)

300. PLANT DOCKET # 50-14518

ACTUATION EVENTS

Prepared by: G. M. Delaney

Approved by: G. M. Delaney

SRVS

NOTE: INCLUDES ALL IN SITU TESTS.

FOR EACH ACTUATION OR FAILURE TO ACTUATE:	1.	2.	3.	4.	5.
301. S/R VALVE SERIAL NUMBER	NUG 3800 00-0078	NUG 3800 00-0083	NUG 3800 00-0084	NUG 3800 00-0085	NUG 3800 00-0086
302. COMPONENT ID (LOCATION)	1821K RVF047F	1821K RVF051B	1821K RVF051C	1821K RVF051D	1821K RVF051G
303. DATE OF ACTUATION (Mo/Da/Yr)	03-05-92	03-05-92	03-05-92	03-05-92	03-05-92
304. TIME OF DAY (24 Hour Clock)	0202	0202	0202	0202	0202
305. TYPE OF ACTUATION (Code)	A	A	A	A	A
306. CAUSE/REASON FOR ACTUATION (Code)	A	A	A	A	A
307. RX OPERATING CONDITION Prior to Lift (Code)	E	E	E	E	E
308. RX POWER LEVEL PRIOR TO LIFT (8 RATED THERMAL)	100%	100%	100%	100%	100%
309. Time Req'd for Tailpipe Temp to Return to Normal	—	—	—	—	—
310. OTHER INSTRUMENTATION Type (Code)	X	X	X	X	X
311. OTHER INSTRUMENTATION NUMBER, READING AND UNITS.	ERIS Points	ERIS Points	ERIS Points	ERIS Points	ERIS Points
312. RX PRESSURE PRIOR TO ACTUATION (PSIG)	1032 psig	1032 psig	1032 psig	1032 psig	1032 psig
IF AVAILABLE / 11. AIRY ELAB					
313. RESET PRESSURE AT VALVE CLOSURE (PSIG)					
314. DURATION OF THE 1/2 TUATION (MINUTES:SECOND)					
315. FAILURES, REPAIRS (CODE)					
316. LER NUMBER (5 Digit Number)					
317. COMMENTS REGARDING THIS ACTUATION ATTACHED? (YES or NO)					

SRVS

ACTUATION

[B (CONT'D.)

NOTE: FOR EACH ACTUATION EVENT, SELECT THE NUMBER OF CODES INDICATED IN PARENTHESES.

CODES:

305. TYPE OF ACTUATION (SELECT ONE)

- A. AUTOMATIC
- B. REMOTE MANUAL
- C. SPRING

306. CAUSE/REASON FOR ACTUATION (SELECT ONE)

- A. OVERPRESSURE
- B. ADS OR OTHER SAFETY
- C. TEST
- D. INADVERTENT (ACCIDENTAL, SPIRIOUS)
- E. MANUAL RELIEF

307. REACTOR OPERATING CONDITION PRIOR TO LIFT (SELECT ONE ONLY)

- A. CONSTRUCTION
- B. PREOPERATIONAL STARTUP OR POWER ASCENSION TESTS IN PROGRESS
- C. ROUTINE STARTUP
- D. ROUTINE SHUTDOWN
- E. STEADY STATE OPERATION
- F. LOAD CHANGES DURING ROUTINE OPERATION
- G. SHUTDOWN (HOT OR COLD) EXCEPT REFUELING
- H. REFUELING

310. OTHER INSTRUMENT-TYPE (SELECT ONE ONLY IF APPLICABLE)

- A. ACOUSTIC MONITOR
- B. PRESSURE SENSOR
- X. OTHER _____

315. FAILURES-REPORTS (SELECT AS MANY AS APPLICABLE)

- A. FAILURE OF ELECTRICAL OR OTHER COMPONENTS NOT CONSIDERED PART OF VALVE ASSEMBLY - NO SRVS FAILURE REPORT IS REQUIRED
- B. FAILURE OF ANY PART OF VALVE ASSEMBLY - SRVS FAILURE REPORT WILL BE FILED
- C. NO FAILURES OCCURRED - NO SRVS REPORT REQUIRED
- D. IER SUBMITTED - GIVE IER NUMBER IN ITEM 316
- F. HPRUS WILL BE SUBMITTED

REACTOR COOLANT SYSTEM SPECIFIC ACTIVITY ANALYSIS

During the year of 1992, analysis of the primary coolant indicated that the specific activity requirements of Technical Specification 3.4.5, "Specific Activity" were not exceeded.