



ENTERGY

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March 1, 1995

U.S. Nuclear Regulatory Commission
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Subject: Annual Operating Report for 1994
Reference: River Bend Station - Unit 1 / Docket 50-458
File Nos.: G9.5, G9.25.1.5

RBF1-95-0064
RBG-41254

Gentlemen:

Enclosed is the River Bend Station (RBS) Annual Operating Report for 1994. 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.

Should you have any questions, please contact R.M. McAdams at (504) 336-6224.

Sincerely,

Otto P. Bulich
for

RMM
enclosures

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PDR ADOCK 05000458
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Annual Operating Report for 1994
March 1, 1995
RBF1-95-0064
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Page 2 of 2

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RIVER BEND STATION
ANNUAL OPERATING REPORT
FOR
1994

Table of Contents

- 1.0 Occupational Radiation Summary Report**
 - Annual Regulatory Guide 1.16 Report, Pocket Dosimeter Data

- 2.0 Safety Relief Valve History**
 - Maintenance Activity
 - Safety Relief Valve Leakage Log
 - Safety Relief Valve Actuation Events

- 3.0 Reactor Coolant System Specific Activity Analysis**

1.0 Occupational Radiation Summary Report

The River Bend Station (RBS) TLD total for 1994 is 518.606 man-rem. The following table is a report on Occupational Radiation Exposure for RBS personnel for the year 1994 as required by 10CFR20.407, Regulatory Guide 1.16, and Technical Specification Section 6.9.1.5.a of Appendix A to the RBS operating License NPF-47. This table was developed from pocket dosimeter data.

USNRC ANNUAL
REG GUIDE 1.16 REPORT
ENTERGY OPERATIONS, INC. - 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	9.432	0.764	26.749	4.841	0.107	9.196
Operating Personnel	53.957	0.000	1.163	24.723	0.000	0.089
Health Physics Personnel	23.674	0.005	46.077	11.656	0.004	14.703
Supervisory Personnel	1.223	0.634	1.640	0.298	0.194	0.302
Engineering Personnel	9.199	3.497	7.743	2.051	0.543	1.452
ROUTINE MAINTENANCE						
Maintenance Personnel	21.433	0.035	128.041	13.476	0.030	35.799
Operating Personnel	9.224	0.000	0.113	0.185	0.000	0.014
Health Physics Personnel	0.775	0.000	4.474	0.482	0.000	2.190
Supervisory Personnel	0.000	0.000	0.120	0.000	0.000	0.006
Engineering Personnel	1.461	0.914	7.021	0.425	0.146	1.812
INSERVICE INSPECTION						
Maintenance Personnel	8.935	0.000	57.027	3.183	0.000	49.040
Operating Personnel	6.681	0.000	0.553	4.446	0.000	0.105
Health Physics Personnel	0.277	0.000	0.670	0.276	0.000	0.888
Supervisory Personnel	0.047	0.000	0.709	0.006	0.000	0.202
Engineering Personnel	4.707	1.935	70.322	1.792	0.563	33.202
SPECIAL MAINTENANCE						
Maintenance Personnel	75.058	1.201	289.910	45.849	0.633	137.166
Operating Personnel	3.387	0.000	0.729	4.419	0.000	0.681
Health Physics Personnel	6.179	0.055	9.882	6.760	0.003	5.472
Supervisory Personnel	0.357	0.574	1.474	0.368	0.125	0.191
Engineering Personnel	11.096	16.579	64.590	4.133	4.966	27.762
WASTE PROCESSING						
Maintenance Personnel	0.058	0.000	23.141	0.051	0.000	3.688
Operating Personnel	0.000	0.000	6.656	0.000	0.000	3.047
Health Physics Personnel	1.217	0.000	1.769	0.713	0.000	0.376
Supervisory Personnel	0.000	0.000	0.000	0.000	0.000	0.000
Engineering Personnel	0.058	0.000	0.460	0.016	0.000	0.030
REFUELING						
Maintenance Personnel	5.084	0.000	56.527	2.231	0.000	20.486
Operating Personnel	6.750	0.000	0.785	1.067	0.000	0.087
Health Physics Personnel	4.877	0.939	6.914	2.101	0.134	2.285
Supervisory Personnel	0.374	0.791	0.058	0.006	0.011	0.007
Engineering Personnel	0.480	1.074	16.684	0.094	0.195	3.672
TOTALS						
Maintenance Personnel	115.900	2.000	581.394	69.631	0.770	255.375
Operating Personnel	71.000	0.000	10.900	34.840	0.000	4.023
Health Physics Personnel	37.000	1.000	69.785	21.988	0.141	25.914
Supervisory Personnel	2.000	2.000	4.000	0.678	0.330	0.708
Engineering Personnel	27.000	24.000	166.821	8.511	6.413	67.930
GRAND TOTALS	252.000	29.000	832.000	135.648	7.654	353.950

2.0 Safety Relief Valve History

The following is a summary of 1994 Safety Relief Valve (SRV) Operating History. Specific details are provided in the following attachments.

January 1, 1994 thru April 15, 1994

- RBS maintained 100% power until shutdown for Refueling Outage (RF) 5 (began April 15, 1994).
- No SRV actuations occurred during this period.
- 10 SRV's were leaking at the beginning of the year, previously documented in the 1993 SRV Annual Report.
- No additional SRV's began leaking during this period.

April 15, 1994 thru July 6, 1994 (Refueling Outage 5)

- 15 SRV's were replaced with previously unused valves.
- 1 SRV was replaced with a previously installed valve.

July 6, 1994 through September 8, 1994

- All 16 SRV's were lift tested during startup after RF 5.
- 2 SRV's began leaking on August 5, 1994.

September 8, 1994 (SCRAM 94-01)

- Reactor scram 94-01 occurred at 20:28 hours due to initiation of reactor pressure vessel (RPV) Level 8 signal on reactor protection system (RPS) channels C and D.
- 2 SRV's automatically lifted; a total of 6 automatic lift events occurred.
- 6 SRV's were manually actuated from the control room for RPV pressure control during scram recovery.
- The Emergency Response Information System (ERIS) failed approximately 20:39; the first SRV lift occurred on 20:45.

- During startup, 1 SRV was lift tested in manual relief mode after replacement of a broken connector on the solenoid cable.

October 21, 1994 thru October 28, 1994

- 6 SRV's began leaking on October 25, 1994.

October 28, 1994 thru November 3, 1994 (FO 94-02)

- Manual SCRAM (94-02) initiated due to high turbine vibration at about 40 % power.
- No SRV actuations.

November 3 thru December 5, 1994

- 1 SRV began leaking on November 10, 1994.

December 5, 1994 (SCRAM 94-03)

- Reactor scram occurred at 19:58 hours due to full MSIV closure event.
- 2 SRV's lifted automatically.
- 7 SRV's were manually actuated from the control room for RPV pressure control during scram recovery.
- 3 SRV's lifted momentarily in safety (spring) mode.

December 12, 1994 through December 31, 1994

- 3 more SRV's began leaking on December 13, 1994.

MAINTENANCE ACTIVITY

SHV528 Prepared by: *Handwritten Signature* 1138

MAINTENANCE ACTIVITY

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

401. S/B VALVE SERIAL NUMBER N63800-00-0041 402. PLANT'S COMPLIMENT ID FROM TO MAINT. (FOR "S" IF FROM STORAGE) 1B21*RVFD47A

403. TYPE OF MAINTENANCE CODE

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

404. TYPE REPORT

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

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

NOTE: IF MAINTENANCE IS ASSOCIATED WITH ANY FAILURE, COMPLETE ITEMS 410 THROUGH 415. IF NO FAILURE HAS OCCURRED, CONTINUE FROM ITEM 416.

410. DATE OF FAILURE (MM/DD/YY) 10/25/94

411. AUTOMATIC PRESSURE SWITCH OPERABLE?

☒ YES OR ☐ NO

412. ELECTRIC POWER SUPPLY AVAILABLE

☒ YES OR ☐ NO

413. VOLTAGE OF ELECTRIC POWER SUPPLY 125 VDC

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

- A. ☒ TAILPIPE THERMOCOUPLE READING HIGH
- B. ☒ TAILPIPE PRESSURE SWITCH
- C. ☒ PANEL INDICATOR - TAILPIPE PRESSURE SWITCH
- D. ☒ BEEP IN ELECTRICAL OUTPUT
- E. ☒ STEAM FLOW IN STEAM LINE
- F. ☒ INCREASE IN STEAM FLOW AROUND STEAM LINES
- G. ☒ RISE IN SUPPRESSION POOL TEMPERATURE
- H. ☒ RISE IN SUPPRESSION POOL LEVEL
- I. ☒ SLIGHT TRANSIENT BUMP IN VESSEL LEVEL
- J. ☒ RADIATION MONITOR(S)
- K. ☒ ACOUSTIC MONITOR(S)
- L. ☒ DIRECT MONITORING POSITION INDICATOR
- M. ☒ INDIRECT MONITORING POSITION INDICATOR
- N. ☒ OTHER (EXPLAIN IN ITEM 415)

415. TYPE FAILURE (CHECK AS MANY AS APPLICABLE)

- A. ☐ LIFTED PREMATURELY
- B. ☐ LIFTED FROM SETPOINT
- C. ☐ LIFTED FROM SETPOINT
- D. ☐ FAILED TO LIFT
- E. ☐ FAILED TO RECLOSE
- F. ☐ FAILED TO FULLY RESEAL
- G. ☐ LEAKAGE (OTHER THAN FLAMING)
- H. ☐ INADVERTENT OPENING OF S/B VALVE
- I. ☒ OTHER (EXPLAIN IN ITEM 415)

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

- A. ☐ PLANT IN SHUT DOWN
- B. ☐ PLANT IN SHUT DOWN
- C. ☐ PLANT IN SHUT DOWN
- D. ☐ PLANT IN SHUT DOWN
- E. ☐ PLANT IN SHUT DOWN
- F. ☐ PLANT IN SHUT DOWN
- G. ☐ PLANT IN SHUT DOWN

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

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

None

MAINTENANCE ACTIVITY (CONT'D.)

SRVS

419. DESCRIPTION OF FAILURE, INCLUDING DETECTION POINT: *Seat leakage detected from tailpipe temperature data. Leakage is not considered excessive. Extent of erosion/str. cutting of seats will be determined upon disassembly.*

440. DATE REMOVED FROM SERVICE (MO/DA/YR) _____

"AS FURNISHED" 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. _____	_____	_____	_____

434. TYPE TEST CODE:

- A. SET POINT TEST STEAM
- B. SET POINT TEST H₂ (IN INERT)
- C. OPERATIONAL RELIEF TEST STEAM
- D. OPERATIONAL RELIEF TEST H₂
- E. LEAK TEST STEAM
- F. LEAK TEST H₂
- 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 LIST PRESSURE
- B. RESET - RECLOSURE PRESSURE
- C. VALVE OPENING DELAY TIME
- D. VALVE OPENING DELAY TIME
- E. AUTOMATIC MODE
- F. MAIN DISC OPENING STROKE TIME
- G. MAIN DISC OPENING STROKE TIME
- H. AUTOMATIC MODE
- I. PILOT STAGE SEAT TIGHTNESS
- J. MAIN STAGE SEAT TIGHTNESS
- K. FLANGED CONNECTION GASKET LEAKAGE
- L. OTHER _____

PLANT (DOCAT 150 - 458

455. 456.

456.

Cause of Failure /

PILOT DISC STUCK IN AND DAMAGED
FIREWORKS (MAY BE DAMAGED
DAMAGE TO SEAT)
CONTAIN MATERIAL (WHEEL, LINES) AND
DAMAGE TO THE STAGE
KEY POINT UNIT - NOT DAMAGED
DAMAGED SPRING
LASTING EFFECTS
THESE MANIFESTATIONS MAY BE
IMPROPER ASSESSMENT ON INSTANT
MAY BE
DAMAGED (BY - FLYING) (BEYOND HARM
HARMLESS) (DAMAGED)
SAME(S) MOUNT BEYOND NORMAL, &
BELOW DAMAGED. MORE
BROKEN AIR LINE
SOMEHOW FAILED
FAILURE OF AIR INFLATION ABSTAIN
UNIT(S) EXPLAINED IN PARAGRAPH
UP MAINLINE RELATING TO F

4653. DETAILED OBSERVED DAMAGE / CAUSE OF FAILURE NARRATIVE:

10

10

4

22

[illegible]

MAINTENANCE ACTIVITY (CONT'D.)

SNVS

N/C 3800-00-0041

4/3. DETAILS OF MAINTENANCE/REFURBISHING NARRATIVE:

400. DATE TESTED AFTER REASSEMBLY (Mo/Yr) 401. 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.)

404. TEST TYPE CODE (SELECT ONE PER LINE) 405. PARAMETER MEASURED CODE (SELECT ONE PER LINE) 406. NUMERICAL RESULTS IN TEST (INCLUDE UNITS OR GIVE LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS) 407. RESULTS OF TEST (ACCEPTABLE? "YES" OR "NO")

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

408. DATE REINSTALLED IN SERVICE (Mo/Yr/Yr) 409. COMPONENT ID WHEN VALVE REINSTALLED (UN - 5 - IF STORED OR 0 - IF DISPOSED)

CODES

404. 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

405.

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 - RELIEF PRESSURE
- C. VALVE OPENING DELAY TIME
- D. VALVE OPENING DELAY TIME
- E. AUTOMATIC MODE
- F. MANUAL 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
- M. OTHER

Prepared by: *[Signature]* 1138
 Approved by: *[Signature]*

MAINTENANCE ACTIVITY

880. PLANT LOCKST #50 - 458

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

401. S/B VALVE SERIAL NUMBER N63800-80-0038

402. PLANT'S COMMENT TO MAINT. (OR "S" IF FROM STORAGE) 1821KRUF0416

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 AFTER A NON-CATASTROPHIC FAILURE OCCURRED
- C. ☐ UNUSUAL/EMERGENCY 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 INCOMPLETE REPORT

NOTE: FOR C. AND D., ITEMS 401 AND 430 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 418.

410. DATE OF FAILURE (MO/DA/YR) 10/25/94

411. AUTOMATIC PRESSURE SWITCH OPERABLE?

☒ YES OR ☐ NO

412. ELECTRIC POWER SUPPLY AVAILABLE?

☒ YES OR ☐ NO

413. VOLTAGE OF ELECTRIC POWER SUPPLY 125VDC

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

- A. ☒ TAILPIPE THERMOCOUPLE BEARING HIGH
- B. ☐ AUTOMATIC TAILPIPE PRESSURE SWITCH
- C. ☐ PANEL INDICATOR LIGHTS
- D. ☐ BOOP IN ELECTRICAL OUTPUT
- E. ☐ STEAM-PRODUCING HIGH PRESSURE
- F. ☐ INCREASE IN STEAM PRESSURE
- G. ☐ RISE IN SUPPRESSION POOL TEMPERATURE
- H. ☐ RISE IN SUPPRESSION POOL LEVEL
- I. ☐ SLIGHT TRANSIENT BOOP IN VESSEL LEVEL
- J. ☐ RADIATION MONITOR(S)
- K. ☐ ACOUSTIC MONITOR(S)
- L. ☐ DIRECT MONITOR(S)
- M. ☐ INDIRECT MONITOR(S)
- N. ☐ OTHER (EXPLAIN IN ITEM 415)

415. TYPE FAILURE (CHECK AS MANY AS APPLICABLE)

- A. ☐ LIFTED PREMATURELY
- B. ☐ LIFTED FROM SETPOINT
- C. ☐ LIFTED FROM SETPOINT
- D. ☐ FAILED TO LIFT
- E. ☐ FAILED TO CLOSE
- F. ☐ FAILED TO FULLY RESEAL
- G. ☐ LEAKAGE (OTHER THAN MINOR)
- H. ☐ INADVERTENT OPENING OF S/B VALVE
- I. ☒ OTHER (EXPLAIN IN ITEM 415)

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

- A. ☐ PLANT IN NORMAL OPERATION
- B. ☐ PLANT IN NORMAL OPERATION
- C. ☐ PLANT IN NORMAL OPERATION
- D. ☐ PLANT IN NORMAL OPERATION
- E. ☐ PLANT IN NORMAL OPERATION
- F. ☐ PLANT IN NORMAL OPERATION
- G. ☐ PLANT IN NORMAL OPERATION
- H. ☐ PLANT IN NORMAL OPERATION
- I. ☐ PLANT IN NORMAL OPERATION
- J. ☐ PLANT IN NORMAL OPERATION
- K. ☐ PLANT IN NORMAL OPERATION
- L. ☐ PLANT IN NORMAL OPERATION
- M. ☐ PLANT IN NORMAL OPERATION
- N. ☐ PLANT IN NORMAL OPERATION
- O. ☐ PLANT IN NORMAL OPERATION
- P. ☐ PLANT IN NORMAL OPERATION
- Q. ☐ PLANT IN NORMAL OPERATION
- R. ☐ PLANT IN NORMAL OPERATION
- S. ☐ PLANT IN NORMAL OPERATION
- T. ☐ PLANT IN NORMAL OPERATION
- U. ☐ PLANT IN NORMAL OPERATION
- V. ☐ PLANT IN NORMAL OPERATION
- W. ☐ PLANT IN NORMAL OPERATION
- X. ☐ PLANT IN NORMAL OPERATION
- Y. ☐ PLANT IN NORMAL OPERATION
- Z. ☐ PLANT IN NORMAL OPERATION

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

135°F

418. WERE THERE ANY ATTACHMENTS (LIFT, POSITION INDICATOR, ETC.) ATTACHED TO S/B VALVE NOT REFLECTED ON ORIGINAL "AS FURNISHED" VALVE? IF SO, SPECIFY WHAT AND WHEN ATTACHED. REFERENCE IS TO BE MADE TO VERIFY COMPATIBILITY WITH VALVE PERFORMANCE.

none

MAINTENANCE ACTIVITY (CONT'D.)

SRVS

419. INSCRIPTION OF FAILURES, INCLUDING DETECTION PHASE:

*Seat leakage detected from tailpipe
temperature data. Leakage is not considered excessive. Extent of erosion/
steam cutting of seats will be determined upon disassembly*

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

"AS FURNISHED" 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. _____	_____	_____	_____

434. TYPE TEST CODE:

- A. SET POINT TEST STEAM
- B. SET POINT TEST H₂ (IN INHIBIT)
- C. OPERATIONAL RELIEF TEST STEAM
- D. OPERATIONAL RELIEF TEST H₂
- E. LEAK TEST STEAM
- F. LEAK TEST H₂
- 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 _____

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
☐ C. CONTRACTOR, LAB. OR VENDOR

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

☐ (711) (MOSBY VALVE & GAGE CO.)
☐ (B16) (BIRNERS)
☐ (B24) (BOESSER VALVE)
☐ (G082) (GENERAL ELECTRIC EMP)
☐ (P999) (DANVAL VALVE (NOT BIRNERS' CORP))
☐ (T020) (TARGET ROCK CORP.)
☐ (W336) (WYLE 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/FAILURE	456. CAUSE OF FAILURE/DAMAGE RESULTING FROM FAILURE (IF FAILURE HAS OCCURRED)
A.	A.
B.	B.
C.	C.
D.	D.
E.	E.
F.	F.
G.	G.
H.	H.
I.	I.
J.	J.
K.	K.
L.	L.
M.	M.
N.	N.
O.	O.
P.	P.
Q.	Q.
R.	R.
S.	S.
T.	T.
U.	U.
V.	V.
W.	W.
X.	X.
Y.	Y.
Z.	Z.

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

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

☐ A. ACTUATION STAGES REPLACED
☐ B. FORMERS REPLACED WITH ONE OF SAME SETPOINT
☐ C. RELAP SEAT, BISC
☐ D. MACHINE PILOT VALVE BISC
☐ E. CLEAN & REPAIR PILOT ASSEMBLIES
☐ F. SETPOINT ADJUSTMENT
☐ G. VALVE INDIAT BONE SIZE INCREASED
☐ H. SOLENOID ASSEMBLY REMOVED, REINSTALLED
☐ I. REPAIR/REPLACE SEAM IN O-RING UNIFILE
☐ J. REPLACE PILOT RING(S)
☐ K. REPLACE O-RING(S)
☐ L. REPLACE DIAPHRAGM(S)
☐ M. REPLACE/REPAIR BELLONS
☐ N. REPLACE/REPAIR GASKET(S)
☐ O. REPLACE/REPAIR SPRING(S)
 OTHER (EXPLAIN IN NARRATIVE)

N6380-00-0038

470. DETAILS OF MAINTENANCE/REFURBISHING NARRATIVE:

480. DATE TESTED AFTER REASSEMBLY (Mo/Yr) 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 OR TEST INCLUDE LIMITS (OR GIVE LEAKAGE RATE OR RATE "NO" 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/Yr/Yr) 491. COMPONENT ID NUMBER VALVE BE INSTALLED (OR "X" IF STORED OR "D" IF DISPOSED)

CODES

484. 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
- 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 - NITROGEN PRESSURE
- C. VALVE OPENING DELAY TIME
- D. VALVE OPENING DELAY TIME
- E. AUTOMATIC MODE
- F. MAIN DISC OPENING SINGLET TIME
- G. MAIN DISC OPENING SINGLET TIME
- H. AUTOMATIC MODE
- I. MAIN STAGE SEAT TIGHTNESS
- J. MAIN STAGE SEAT TIGHTNESS
- K. FLANGED CONNECTION GASKET LEAKAGE
- X. OTHER

Revised by: *Handwritten signature* 1138

MAINTENANCE ACTIVITY

SHV'S 1138

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

401. S/R VALVE SERIAL NUMBER 163800-00-0115 402. PLANT'S COMMITMENT TO MAINT. (FOR "S" IF FROM STORAGE) 1821* RUFED 51C

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 IN REPORT TO BE APPROVED.

NOTE: IF MAINTENANCE IS ASSOCIATED WITH ANY FAILURE, COMPLETE ITEMS 410 THROUGH 412. IF NO FAILURE HAS OCCURRED, CONTINUE FROM ITEM 410.

410. DATE OF FAILURE (MM/DD/YY) 10/25/94 411. AUTOMATIC PRESSURE SWITCH OPERABLE? ☒ YES OR ☐ NO

412. ELECTRIC POWER SUPPLY AVAILABLE ☒ YES OR ☐ NO

413. VOLTAGE OF ELECTRIC POWER SUPPLY 125 VDC

414. TYPE FAILURE (CHECK AS MANY AS APPLICABLE)

- A. ☐ LIFTED PREMATURELY
- B. ☐ LIFTED BELOW SETPOINT
- C. ☐ LIFTED ABOVE SETPOINT
- D. ☐ LIFTED TO LIFT
- E. ☐ LIFTED TO CLOSE
- F. ☐ LIFTED TO SEAL
- G. ☐ LIFTED TO THROTTLE
- H. ☐ LIFTED TO OTHER
- I. ☐ LIFTED TO OTHER
- J. ☐ LIFTED TO OTHER
- K. ☐ LIFTED TO OTHER
- L. ☐ LIFTED TO OTHER
- M. ☐ LIFTED TO OTHER
- N. ☐ LIFTED TO OTHER
- O. ☐ LIFTED TO OTHER
- P. ☐ LIFTED TO OTHER
- Q. ☐ LIFTED TO OTHER
- R. ☐ LIFTED TO OTHER
- S. ☐ LIFTED TO OTHER
- T. ☐ LIFTED TO OTHER
- U. ☐ LIFTED TO OTHER
- V. ☐ LIFTED TO OTHER
- W. ☐ LIFTED TO OTHER
- X. ☐ LIFTED TO OTHER
- Y. ☐ LIFTED TO OTHER
- Z. ☐ LIFTED TO OTHER

- A. ☒ TAILPIPE THERMOCOUPLE READING HIGH
- B. ☐ TAILPIPE THERMOCOUPLE READING LOW
- C. ☐ TAILPIPE THERMOCOUPLE READING FLUCTUATING
- D. ☐ TAILPIPE THERMOCOUPLE READING UNSTABLE
- E. ☐ TAILPIPE THERMOCOUPLE READING UNRELIABLE
- F. ☐ TAILPIPE THERMOCOUPLE READING UNUSUAL
- G. ☐ TAILPIPE THERMOCOUPLE READING UNEXPECTED
- H. ☐ TAILPIPE THERMOCOUPLE READING UNUSUAL
- I. ☐ TAILPIPE THERMOCOUPLE READING UNEXPECTED
- J. ☐ TAILPIPE THERMOCOUPLE READING UNUSUAL
- K. ☐ TAILPIPE THERMOCOUPLE READING UNEXPECTED
- L. ☐ TAILPIPE THERMOCOUPLE READING UNUSUAL
- M. ☐ TAILPIPE THERMOCOUPLE READING UNEXPECTED
- N. ☐ TAILPIPE THERMOCOUPLE READING UNUSUAL
- O. ☐ TAILPIPE THERMOCOUPLE READING UNEXPECTED
- P. ☐ TAILPIPE THERMOCOUPLE READING UNUSUAL
- Q. ☐ TAILPIPE THERMOCOUPLE READING UNEXPECTED
- R. ☐ TAILPIPE THERMOCOUPLE READING UNUSUAL
- S. ☐ TAILPIPE THERMOCOUPLE READING UNEXPECTED
- T. ☐ TAILPIPE THERMOCOUPLE READING UNUSUAL
- U. ☐ TAILPIPE THERMOCOUPLE READING UNEXPECTED
- V. ☐ TAILPIPE THERMOCOUPLE READING UNUSUAL
- W. ☐ TAILPIPE THERMOCOUPLE READING UNEXPECTED
- X. ☐ TAILPIPE THERMOCOUPLE READING UNUSUAL
- Y. ☐ TAILPIPE THERMOCOUPLE READING UNEXPECTED
- Z. ☐ TAILPIPE THERMOCOUPLE READING UNUSUAL

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

- A. ☐ PRESSURE IN PLANT (LUM)
- B. ☐ PRESSURE IN PLANT (LUM)
- C. ☐ PRESSURE IN PLANT (LUM)
- D. ☐ PRESSURE IN PLANT (LUM)
- E. ☐ PRESSURE IN PLANT (LUM)
- F. ☐ PRESSURE IN PLANT (LUM)
- G. ☐ PRESSURE IN PLANT (LUM)
- H. ☐ PRESSURE IN PLANT (LUM)
- I. ☐ PRESSURE IN PLANT (LUM)
- J. ☐ PRESSURE IN PLANT (LUM)
- K. ☐ PRESSURE IN PLANT (LUM)
- L. ☐ PRESSURE IN PLANT (LUM)
- M. ☐ PRESSURE IN PLANT (LUM)
- N. ☐ PRESSURE IN PLANT (LUM)
- O. ☐ PRESSURE IN PLANT (LUM)
- P. ☐ PRESSURE IN PLANT (LUM)
- Q. ☐ PRESSURE IN PLANT (LUM)
- R. ☐ PRESSURE IN PLANT (LUM)
- S. ☐ PRESSURE IN PLANT (LUM)
- T. ☐ PRESSURE IN PLANT (LUM)
- U. ☐ PRESSURE IN PLANT (LUM)
- V. ☐ PRESSURE IN PLANT (LUM)
- W. ☐ PRESSURE IN PLANT (LUM)
- X. ☐ PRESSURE IN PLANT (LUM)
- Y. ☐ PRESSURE IN PLANT (LUM)
- Z. ☐ PRESSURE IN PLANT (LUM)

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

- A. ☐ PLANT IN NORMAL OPERATION
- B. ☐ PLANT IN NORMAL OPERATION
- C. ☐ PLANT IN NORMAL OPERATION
- D. ☐ PLANT IN NORMAL OPERATION
- E. ☐ PLANT IN NORMAL OPERATION
- F. ☐ PLANT IN NORMAL OPERATION
- G. ☐ PLANT IN NORMAL OPERATION
- H. ☐ PLANT IN NORMAL OPERATION
- I. ☐ PLANT IN NORMAL OPERATION
- J. ☐ PLANT IN NORMAL OPERATION
- K. ☐ PLANT IN NORMAL OPERATION
- L. ☐ PLANT IN NORMAL OPERATION
- M. ☐ PLANT IN NORMAL OPERATION
- N. ☐ PLANT IN NORMAL OPERATION
- O. ☐ PLANT IN NORMAL OPERATION
- P. ☐ PLANT IN NORMAL OPERATION
- Q. ☐ PLANT IN NORMAL OPERATION
- R. ☐ PLANT IN NORMAL OPERATION
- S. ☐ PLANT IN NORMAL OPERATION
- T. ☐ PLANT IN NORMAL OPERATION
- U. ☐ PLANT IN NORMAL OPERATION
- V. ☐ PLANT IN NORMAL OPERATION
- W. ☐ PLANT IN NORMAL OPERATION
- X. ☐ PLANT IN NORMAL OPERATION
- Y. ☐ PLANT IN NORMAL OPERATION
- Z. ☐ PLANT IN NORMAL OPERATION

417. TEMP. OF ENVIRONMENT AROUND S/R VALVE (IF AVAILABLE) 135°F

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

NONE

MAINTENANCE ACTIVITY (CONT'D.)

SRVS

419. DESCRIPTION OF FAILURE, INCLUDING DETECTION PHASE: *Seat leakage detected from tulpipe temperature data. Leakage is not considered excessive. Extent of error/steam cutting of seats will be determined upon disassembly.*

A-7

434. DATE REMOVED FROM SERVICE (MO/DA/YR) _____

"AS FUND" 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 - INCLUDING 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 H₂ (IN INHIBIT)
- C. OPERATIONAL RELIEF TEST STEAM
- D. OPERATIONAL RELIEF TEST H₂
- E. LEAK TEST STEAM
- F. LEAK TEST H₂
- 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. RESIST - RECLOSE PRESSURE
- C. VALVE OPENING DELAY TIME MANUAL MODE
- D. VALVE OPENING DELAY TIME AUTOMATIC MODE
- E. MAIN DISC OPENING STROKE TIME
- 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 _____

SAVS
Prepared By:
Approved By:

MAINTENANCE ACTIVITY (CONT'D.)

PLANT INCHET #50 - 458
S/N VALVE SERIAL NUMBER N63800-00 - 0115

455. OBSERVED DAMAGE/CAUSE OF FAILURE (ENTER 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. DETAILS OF OBSERVED DAMAGE/CAUSE OF FAILURE NARRATIVE:

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

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

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

- (711) CRUSHY VALVE & GATE CO.
- (916) BIRNERS
- (924) BOOSTER VALVE
- (982) GENERAL ELECTRIC CORP.
- (999) CRUSHY VALVE (NOT MPVDS) (CUC)
- (1020) TARGET ROCK CORP.
- (1336) WYLE LABS
- OTHER:

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

- A. ☐ ACTUATION STAGES REPLACED
- B. ☐ FORMERS REPLACED WITH ONE OF SAME SETPOINT
- C. ☐ RELAP SEAT, DISC
- D. ☐ MACHINE PILOT VALVE DISC
- E. ☐ CLEAN & REMOVED PILOT ASSEMBLIES
- F. ☐ SETPOINT ADJUSTMENT
- G. ☐ VALVE THROUGH BOME SIZE INCREASED
- H. ☐ SOLENOID ASSEMBLY REMOVED, REINSTALLED
- I. ☐ REGRINDING STEAM INCOMPRESSIBLE
- J. ☐ REPLACE PISTON RINGS(S)
- K. ☐ REPLACE "D-RINGS"
- L. ☐ REPLACE DIAPHRAGM(S)
- M. ☐ REPLACE/REPAIR BELLOMS
- N. ☐ REPLACE/REPAIR CASSET(S)
- O. ☐ REPLACE/REPAIR SPRING(S)
- P. ☐ OTHER (EXPLAIN IN NARRATIVE)

455. 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. ☐

- PILOT DISC STEAM END OR DAMAGED
- PISTON RINGS BURNED, DAMAGED
- DAMAGE TO SEAT(S)
- FUNCTION MATERIAL (WIRE, LEAD) ON/UNDER SEAT
- DAMAGE TO TWO STAGE PISTON SET POINT SWIFT - NOT DAMAGE RELATED
- DAMAGED SPRING(S)
- CASTING DEFECTS
- OTHER MANUFACTURING DEFECTS
- IMPROPER ASSEMBLY OR INSTALLATION, MISSING PARTS
- DAMAGED "D-RINGS"
- DIAPHRAGM(S) DAMAGED
- CASSET(S) BOMEN BEYOND NORMAL, EXPELLING MEAN
- BELLOMS DAMAGED, MOON
- BROKEN AIR LINE
- SOLENOID FAILURE
- FAILURE OF AIR OPERATED ASSEMBLY
- OTHER (EXPLAIN IN NARRATIVE)

NO DAMAGE EXCEPT THAT DIRECTLY RELATING TO FAILURE

PLANT BOOKET # 50-458
S/N VALVE SERIAL NUMBER

NE3800-00-0115

MAINTENANCE ACTIVITY (CONT'D.)

SHVS

4/0. DETAILS OF MAINTENANCE/REFURBISHING NARRATIVE:

CODES

400. 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

400. DATE TESTED AFTER REASSEMBLY (MO/DY/YR)

401. TEST REPORT NUMBERS FOR POST REASSEMBLY BENCH TESTS:

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

404. TEST TYPE CODE (SELECT ONE PER LINE)
405. PARAMETER MEASURED (CODE (SELECT ONE PER LINE))
406. NUMERICAL RESULTS ON TEST - INCLUDE UNITS (DO NOT GIVE LEAKAGE RATE OR WEIGHT "NO LEAK" FOR LEAKAGE TESTS)
407. RESULTS OF TEST - ACCEPTABLE? "YES" OR "NO"

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

408. DATE REINSTALLED IN SERVICE (MO/DY/YR)

409. COMPONENT ID NUMBER VALVE REINSTALLED (UN "S" IF STOCK OR "N" IF DISPOSED)

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
- D. VALVE OPENING DELAY TIME
- E. AUTOMATIC PNEUMATIC
- F. MAIN DISC OPENING STROKE TIME
- G. MAIN DISC OPENING STROKE TIME
- H. PILOT SEAT TIGHTNESS
- I. MAIN SEAT TIGHTNESS
- J. PLANNED CONNECTION GASKET LEAKAGE
- K. OTHER

SHV500
Approved By: *[Signature]*
1138

MAINTENANCE ACTIVITY

600. PLANT LOCKST 650 - 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 N63800-00-0110

402. PLANT'S COMMENT IS FROM TO MAINT. (FOR "S" IF FROM STORAGE)

1821XRUF041L

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 TO BE PERFORMED
- D. ☐ VALVE RELOCATION REPORT ONLY - VALVE INSTALLED WITH NO MAINTENANCE PERFORMED.

404. TYPE REPORT

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

NOTE: FOR C. AND D., ITEMS 401 AND 430 MUST MATCH THOSE ON REPORT TO BE APPROVED.

NOTE: IF MAINTENANCE IS ASSOCIATED WITH ANY FAILURE, COMPLETE ITEMS 410 THROUGH 415. IF NO FAILURE HAS OCCURRED, CONTINUE FROM ITEM 416.

410. DATE OF FAILURE (MO/DA/YR) 11/10/94

411. AUTOMATIC PRESSURE SWITCH OPERABLE?

☒ YES OR ☐ NO

412. ELECTRIC POWER SUPPLY AVAILABLE?

☒ YES OR ☐ NO

413. VOLTAGE OF ELECTRIC POWER SUPPLY 125VDC

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

- A. ☒ TAILPIPE THERMOCOUPLE READING HIGH
- B. ☐ ALARM INDICATOR - TAILPIPE PRESSURE SWITCH
- C. ☐ PANEL INDICATOR LIGHTS
- D. ☐ LOSS OF ELECTRICAL OUTPUT
- E. ☐ STEAM-FLUX FLOW METER
- F. ☐ INDICATOR 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 MONITORING POSITION INDICATOR
- M. ☐ INDIRECT MONITORING POSITION INDICATOR
- N. ☐ OTHER (EXPLAIN IN ITEM 419)

414. TYPE FAILURE (CHECK AS MANY AS APPLICABLE)

- A. ☐ LIFTED PREMATURELY
- B. ☐ LIFTED BEYOND SETPOINT
- C. ☐ LIFTED PAST SETPOINT
- D. ☐ FAILED TO LEFT
- E. ☐ FAILED TO RIGHT
- F. ☐ LEAKAGE (OTHER THAN MINOR)
- G. ☐ INADVERTENT OPENING OF S/R VALVE
- H. ☒ OTHER (EXPLAIN IN ITEM 419)

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

- A. ☐ PLANT BEHIND
- B. ☐ TUBING TRIP
- C. ☐ MANUAL SCRAM
- D. ☐ AUTOMATIC SCRAM
- E. ☐ EXTENSION OF PWR EXISTING
- F. ☐ SUBSTANTIAL
- G. ☐ MANUAL SHUTDOWN
- H. ☒ NO SIGNIFICANT EFFECT

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

135°F

418. WHEN THERE ARE ATTACHMENTS (LIFT, POSITION INDICATOR, ETC.), ATTACHED TO S/R VALVE NOT DEPICTED ON ORIGINAL "AS FURNISHED" VALVE? IF SO, SPECIFY WHAT AND WHEN ATTACHED. REFERENCE IS TO VERIFICATION OF VALVE PERFORMANCE.

None

MAINTENANCE ACTIVITY (CONT'D.)

SRVS

419. DESCRIPTION OF FAILURE, INCLUDING DETECTION METHOD: *Seat leakage detected from tailpipe temperature data. Leakage is not considered excessive. Extent of erosion/steam cutting of seats will be determined upon disassembly.*

434. DATE REMOVED FROM SERVICE (MO/DA/YR) _____

"AS FOUND" TESTS PERFORMED PRIOR TO DISASSEMBLY:

434. TEST TYPE (CODE PER LINE)	435. PARAMETER MEASURED (CODE PER LINE)	436. MECHANICAL 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 H₂ (MINIMUM)
- C. OPERATIONAL RELIEF TEST STEAM
- D. OPERATIONAL RELIEF TEST H₂
- E. LEAK TEST STEAM
- F. LEAK TEST H₂
- 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 RECLOSURE PRESSURE
- C. VALVE OPENING DELAY TIME MANUAL MODE
- D. VALVE OPENING DELAY TIME AUTOMATIC MODE
- E. MAIN DISC OPENING STROBE TIME
- F. MAIN DISC OPENING STROBE TIME MANUAL MODE
- G. AUTOMATIC PHASE
- H. PILOT STAGE SEAT TIGHTNESS
- I. MAIN STAGE SEAT TIGHTNESS
- J. FLANGED CONNECTION GASKET LEAKAGE
- K. OTHER _____

SRVS

Prepared by:
Approved By:

MAINTENANCE ACTIVITY (CONT'D.)

PLANT JACKET #50 - 458

PAGE 3 OF 4

S/N VALVE SERIAL NUMBER N67800-00-0110

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.

451. MAINTENANCE/REPAIR/REWORKING
PERFORMED BY (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/REPAIR/REWORKING
PERFORMED BY (CHECK ONE)
(ENTER CODE)

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

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

- (1) ☐ (MOSEY VALVE & GATE CO.)
(2) ☐ (PETERS)
(3) ☐ (BESSER VALVE)
(4) ☐ (GENERAL ELECTRIC CORP.)
(5) ☐ (ORANS VALVE (NOT EMPH'S CODE))
(6) ☐ (TACET BOCK CORP.)
(7) ☐ (WYLE LABS)
(8) ☐ OTHER:

455. MAINTENANCE/REPAIR/REWORKING
PERFORMED BY (SELECT AS MANY
AS APPLICABLE)

- A. ☐ ACTUATION STAGES REPLACED
B. ☐ FORWARD REPLACED WITH ONE OF SAME SETPOINT
C. ☐ RELAP SEAT, DISC
D. ☐ MACHINE PILOT VALVE DISC
E. ☐ CLEAN & REPAIR PILOT ASSEMBLIES
F. ☐ SETPOINT ADJUSTMENT
G. ☐ VALVE TENDAT BORE SIZE INCREASED
H. ☐ SOLENOID ASSEMBLY REMOVED, REINSTALLED
I. ☐ REPAIR/REPLACE SEAM WELDING
J. ☐ REPLACE PISTON RINGS
K. ☐ REPLACE VALVE RINGS
L. ☐ REPLACE DIAPHRAGM(S)
M. ☐ REPLACE/REPAIR BELLOWS
N. ☐ REPLACE/REPAIR GASKET(S)
O. ☐ REPLACE/REPAIR SPRING(S)
P. ☐ OTHER (EXPLAIN IN NARRATIVE)

455. OBSERVED
DAMAGE
RELATED TO
ANY FAILURE

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.	

456. 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.	

PISTON DISC SEAM (CUT OR DAMAGED
PISTON RINGS WHEN DAMAGED
DAMAGE TO SEAT(S))
FUNCTION MATERIAL (WHT, LHM) UN/UNDER SEAT
DAMAGE TO 2ND STAGE PISTON
SET POINT GUST - NOT DAMAGE RELATED
DAMAGED SPRING(S)
LASTING DEFECTS
OTHER MANUFACTURING DEFECTS
IMPROPER ASSEMBLY ON INSTALLATION, MISSING PARTS
DAMAGED VALVE RINGS (S) (BEYOND NORMAL WEAR)
DAMAGED VALVE RINGS (S) (BEYOND NORMAL WEAR)
GASKET(S) NOT BEYOND NORMAL, EXPLAINED IN
REPAIRS/REPAIRS/REPAIRS/REPAIRS
BROKEN AIR LINE
SOLENOID FAILURE
FAILURE OF AIR EXHAUSTION ASSEMBLY
OTHER (EXPLAIN IN NARRATIVE)

NO DAMAGE EXCEPT THAT DIRECTLY RELATING TO FAILURE

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

MAINTENANCE ACTIVITY (CONT'D.)

SHVS

N63800-00-0110

4/U. DETAILS OF MAINTENANCE/REFURBISHING NARRATIVE:

COMES

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

POST REASSEMBLY BENCH TEST RESULTS (ONLY THOSE WHICH MEASURE PERTINENT PARAMETERS SUCH AS SET POINT, SEAT 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.				

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

489. COMPONENT ID WHEN VALVE REINSTALLED (UN "5" IF STORED OR "0" IF DISPOSED)

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
- 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. SEAT - RECLOSURE PRESSURE
- C. VALVE OPENING DELAY TIME
- D. VALVE OPENING DELAY TIME
- E. AUTOMATIC MODE
- F. MAIN DISC OPENING SURE TIME
- G. MAIN DISC OPENING SURE TIME
- H. AUTOMATIC MODE
- I. PILOT STAGE SEAT TIGHTNESS
- J. MAIN STAGE SEAT TIGHTNESS
- K. FLANGED CONNECTION GASKET LEAKAGE
- L. OTHER

Prepared by: *Handwritten signature* 1138
Approved by: *Handwritten signature*

MAINTENANCE ACTIVITY

990. 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 063800-00-0118

402. PLANT'S COMMENT ID FROM TO MAINT. (OR -S IF FROM STORAGE) 1821*RVF0516

403. TYPE OF MAINTENANCE CODE

- A. ☐ SCHEDULED/ROUTINE MAINTENANCE - NO FAILURE BEGINNING MAINTENANCE HAS OCCURRED SINCE LAST MAINTENANCE PERIOD
- B. ☒ NON-IMMEDIATE MAINTENANCE - SCHEDULED FOR NEXT OUTAGE
- C. ☐ AFTER A NON-CATASTROPHIC FAILURE OCCURRED
- D. ☐ INSCHIN DUE TO 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 COMPLETE REPORT

NOTE: FOR C. AND D., ITEMS A-D AND 430 MUST MATCH THOSE IN REPORT TO BE APPENDED.

NOTE: IF MAINTENANCE IS ASSOCIATED WITH ANY FAILURE, COMPLETE ITEMS 410 THROUGH 415. IF NO FAILURE HAS OCCURRED, CONTINUE FROM ITEM 416.

410. DATE OF FAILURE (MM/DD/YY) 12/13/94

411. AUTOMATIC PRESSURE SWITCH OPERABLE?

☒ YES OR ☐ NO

412. ELECTRIC POWER SUPPLY AVAILABLE?

☒ YES OR ☐ NO

413. VOLTAGE OF ELECTRIC POWER SUPPLY 125VDC

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

- A. ☒ TAILPIPE INDUCTOR COUPLE READING HIGH
- B. ☐ AMMUNITION - TAILPIPE PRESSURE SWITCH
- C. ☐ PANEL INDICATOR LIGHTS
- D. ☐ BOOP IN ELECTRICAL OUTPUT
- E. ☐ STEAM-FAIR FLOW METER
- F. ☐ INDICATOR IN STEAM FLOW ALONG STEAM LINES
- G. ☐ RISE IN SUPPRESSION POOL TEMPERATURE
- H. ☐ RISE IN SUPPRESSION POOL LEVEL
- I. ☐ SLIGHT TRANSIENT BOOP IN VESSEL LEVEL
- J. ☐ RADIATION MONITOR(S)
- K. ☐ ACOUSTIC MONITOR(S)
- L. ☐ DIRECT MONITORING POSITION INDICATOR
- M. ☐ INDIRECT MONITORING 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 SECURE
- F. ☐ FAILED TO FULLY SEAT
- G. ☐ LEAKAGE (OTHER THAN MINOR)
- H. ☐ INADVERTENT OPENING OF S/R VALVE
- I. ☒ OTHER (EXPLAIN IN ITEM 419)

416. EFFECT OF FAILURE ON PLANT (USE OTHER SIDE ONLY)

- A. ☐ PLANT IN NORMAL OPERATION
- B. ☐ PLANT IN TRIP
- C. ☐ MANUAL SCRAM
- D. ☐ AUTOMATIC SCRAM
- E. ☐ EXTENSION OF PLANT EXISTING
- F. ☒ SCRAMMING
- G. ☐ MANUAL SCRAMMING
- H. ☐ NO SIGNIFICANT EFFECT

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

135°F

418. WHEN ITEMS ARE ATTACHED (LIFT, POSITION INDICATOR, ETC.) ATTACHED TO S/R VALVE NOT EXPECTED ON ORIGINAL "AS FURNISHED" VALVE? IF SO, SPECIFY UNIT AND WHEN ATTACHED. REFERENCE IS TO VERIFICATION OF COMPATIBILITY WITH VALVE PERFORMANCE.

NONE

MAINTENANCE ACTIVITY (CONT'D.)

SRVS

419. DESCRIPTION OF FAILURES, INCLUDING DETECTION NAME: Seat leakage determined from tailpipe temperature
data - Leakage is not considered excessive. Extent of erosion/storm
cutting of seats will be determined upon disassembly.

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. 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 M₂ (MINIMUM)
- C. OPERATIONAL RELIEF TEST STEAM
- D. OPERATIONAL RELIEF TEST M₂
- E. LEAK TEST STEAM
- F. LEAK TEST M₂
- 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 LIST PRESSURE
- B. RESET RECLOSE PRESSURE
- C. VALVE OPENING DELAY TIME
- D. MANUAL MODE
- E. VALVE OPENING DELAY TIME
- F. AUTOMATIC MODE
- G. MANUAL MODE
- H. MAIN DISC OPENING STROKE TIME
- I. MAIN DISC OPENING STROKE TIME
- J. AUTOMATIC MODE
- K. PILOT STAGE SEAT TIGHTNESS
- L. MAIN STAGE SEAT TIGHTNESS
- M. FLANGED CONNECTION GASKET LEAKAGE
- N. OTHER _____

MAINTENANCE ACTIVITY (CONT'D.)

SRVS Prepared By:
 Approved By:

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 FILL IN 456 IF
 NO FAILURE HAS OCCURRED.)

455. 456.
- | | |
|---|---|
| UNOBSERVED
DAMAGE
UNDERTAKEN TO
ANY FAILURE | CAUSE OF FAILURE/
DAMAGE RESULTING
FROM FAILURE (IF
FAILURE HAS OCCURRED) |
| A. <input type="checkbox"/> IN SITU (VALVE REMAINS
IN PLACE) | PILLOT DISC SEAM (L) OR DAMAGED
PISTON RINGS WORN, DAMAGED |
| B. <input type="checkbox"/> ON SITE (VALVE IS
REMOVED FROM INSTAL-
LATION BUT REMAINS
ON PLANT SITE) | FUNCTION MATERIAL (WIND, LIME) ON/UNDER SEAT
DAMAGE TO 2ND STAGE PISTON
SEAT POINT BRIST - NOT DAMAGE RELATED |
| C. <input type="checkbox"/> OFF-SITE | DAMAGED SPRINGS
LASTING DEFECTS
OTHER MANUFACTURING DEFECTS |

452. MAINTENANCE/REFURBISHING
 PERFORMED BY (NAME)
 (CHECK ONE)

- A. ☐ OPERATIONS
 B. ☐ MAINTENANCE
 C. ☐ CONTRACTOR, LAB.
 ON VEHICLE

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

- (711) (NOSE VALVE & GATE CO.)
 (116) PISTONS
 (243) PRESSER VALVE
 (002) GENERAL ELECTRIC PUMP
 (055) ORANGE VALVE (NOT IMPROB) (CUM)
 (102) TARGET ROCK COMP.
 (153) HTLE LABS
 OTHER:

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

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

- A. ☐ ACTUATION STAGES REPLACED
 B. ☐ PISTONS REPLACED WITH ONE OF SAME SETPOINT
 C. ☐ SEAT, DISC
 D. ☐ REPAIR PILOT VALVE DISC
 E. ☐ CLEAN & REWORK PILOT ASSEMBLIES
 F. ☐ SETPOINT ADJUSTMENT
 G. ☐ VALVE THROUGH BORE SIZE INCREASED
 H. ☐ SEAM/CRACK ASSEMBLY REMOVED. REINSTALLED
 I. ☐ REPAIR PISTON RINGS
 J. ☐ REPLACE PISTON RINGS
 K. ☐ REPLACE DIAPHRAGM(S)
 L. ☐ REPLACE/REPAIR BELLOWS
 M. ☐ REPLACE/REPAIR GASKETS
 N. ☐ REPLACE/REPAIR SPRINGS
 O. ☐ OTHER (EXPLAIN IN NARRATIVE)

PLANT DOCKET # 50-458

S/N VALVE SERIAL NUMBER

N63800-00-0118

MAINTENANCE ACTIVITY (CONT'D.)

SHVS

4/10. DETAILS OF MAINTENANCE/REFURBISHING NARRATIVE:

COMES

434. TYPE TEST CODE:

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

435. PARAMETER MEASURED (OR 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 - RELIEF PRESSURE
- C. VALVE OPENING DELAY TIME
- D. VALVE OPENING DELAY TIME
- E. AUTOMATIC MODE
- F. MAIN DISC OPENING SINKING TIME
- G. MAIN DISC OPENING SINKING TIME
- H. AUTOMATIC MODE
- I. FLOW STAGE SEAT TIGHTNESS
- J. MAIN STAGE SEAT TIGHTNESS
- K. FLANGED CONNECTION GASKET LEAKAGE
- L. OTHER

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

441. TEST REPORT NUMBERS FOR POST ASSEMBLY CHECK TESTS:

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

444. TEST TYPE CODE (SELECT ONE PER LINE)

445. PARAMETER MEASURED (CODE (SELECT ONE PER LINE))

446. NUMERICAL RESULTS IN TEST INCLUDE UNITS (OR GIVE LEAKAGE RATE OR "NO LEAK" FOR LEAKAGE TESTS)

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

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

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

449. COMPONENT ID NUMBER VALVE BE INSTALLED (OR "N/A" IF STORED OR "X" IF DISPOSED)

Prepared by: *[Signature]* 1138
 Approved by: *[Signature]*

MAINTENANCE ACTIVITY

QSO. PLANT LOCKET #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 ME3300-00-0045 402. PLANT'S COMPLIMENT TO MAINT. (FOR "S" IF FROM STORAGE) 1821X RVF047F

403. TYPE OF MAINTENANCE CODE

- A. ☐ SCHEDULED/ROUTINE MAINTENANCE - NO FAILURE OCCURRING
- B. ☒ MAINTENANCE HAS OCCURRED SINCE LAST MAINTENANCE PERIOD
- C. ☐ AFTER A NON-CATASTROPHIC FAILURE OCCURRED
- D. ☐ AFTER A MAJOR/IMMEDIATE MAINTENANCE - A FAILURE OCCURRED
- E. ☐ THAT REQUIRED IMMEDIATE MAINTENANCE OR PERFORMED
- F. ☐ VALVE RELOCATION REPORT ONLY - VALVE INSTALLED WITH
- G. ☐ NO MAINTENANCE PERFORMED.

404. TYPE REPORT

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

NOTE: FOR C. AND D., ITEMS 401 AND 430 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 418.

410. DATE OF FAILURE (MO/DA/YR) 8/5/74 411. AUTOMATIC PRESSURE SWITCH OPERABLE? ☒ YES ☐ NO

412. ELECTRIC POWER SUPPLY AVAILABLE? ☒ YES ☐ NO

413. VOLTAGE OF ELECTRIC POWER SUPPLY 125 VDC

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

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

414. TYPE FAILURE (CHECK AS MANY AS APPLICABLE)

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

416. EFFECT OF FAILURE ON PLANT (USE CHECK BOX ONLY)

- A. ☐ PLANT BEHIND
- B. ☐ LUNTING TRIP
- C. ☐ MANUAL SCRAM
- D. ☐ AUTOMATIC SCRAM
- E. ☐ EXTENSION OF PWR EXISTING
- F. ☐ SCRAMMING
- G. ☒ NO SIGNIFICANT EFFECT

417. TEMP. OF ENVIRONMENT AROUND S/R VALVE (IF AVAILABLE) 135°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 IS TO VERIFY COMPATIBILITY WITH VALVE PERFORMANCE: None

MAINTENANCE ACTIVITY (CONT'D.)

SRVS

419. INSCRIPTION OF FAILURE, INCLUDING DETECTION METHOD: Seat leakage detected from tailpipe temperature data.
Leakage is not considered excessive. Extent of erosion/stom cutting will be
determined upon disassembly.

430. DATE REMOVED FROM SERVICE (MO/DA/YR) 2/1/

"AS FOUND" TESTS PERFORMED PRIOR TO DISASSEMBLY:

419. 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. _____	_____	_____	_____

430. TYPE TEST CODE:

- A. SET POINT TEST STEAM
- B. SET POINT TEST M2 (H2/IN/HR)
- C. OPERATIONAL RELIEF TEST STEAM
- D. OPERATIONAL RELIEF TEST M2
- E. LEAK TEST STEAM
- F. LEAK TEST M2
- 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 LIQ PRESSURE
- B. RESEAT RECLOSE PRESSURE
- C. VALVE OPENING DELAY TIME
- D. VALVE OPENING DELAY TIME
- E. MAIN DISC OPENING STROKE TIME
- F. MAIN DISC OPENING STROKE TIME
- G. MAIN DISC OPENING STROKE TIME
- H. MAIN DISC OPENING STROKE TIME
- I. MAIN DISC OPENING STROKE TIME
- J. MAIN DISC OPENING STROKE TIME
- K. MAIN DISC OPENING STROKE TIME
- L. MAIN DISC OPENING STROKE TIME
- M. MAIN DISC OPENING STROKE TIME
- N. MAIN DISC OPENING STROKE TIME
- O. MAIN DISC OPENING STROKE TIME
- P. MAIN DISC OPENING STROKE TIME
- Q. MAIN DISC OPENING STROKE TIME
- R. MAIN DISC OPENING STROKE TIME
- S. MAIN DISC OPENING STROKE TIME
- T. MAIN DISC OPENING STROKE TIME
- U. MAIN DISC OPENING STROKE TIME
- V. MAIN DISC OPENING STROKE TIME
- W. MAIN DISC OPENING STROKE TIME
- X. MAIN DISC OPENING STROKE TIME
- Y. MAIN DISC OPENING STROKE TIME
- Z. MAIN DISC OPENING STROKE TIME

MAINTENANCE ACTIVITY (CONT'D.)

451. OBSERVED DAMAGE/CAUSE OF FAILURE (CHECK AS MANY AS APPLICABLE IN EACH COLUMN)
ANSWER BOTH 455 AND 456. IF A FAILURE HAS OCCURRED, BUT 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, BUT NOT ANSWER 456 IF NO FAILURE HAS OCCURRED.	456. CAUSE OF FAILURE/ DAMAGE RESULTING FROM FAILURE (IF FAILURE HAS OCCURRED)
A. <input type="checkbox"/> IN SITU (VALVE REMAINS IN PLACE)	PILLOT DISC STEAM CUT OR DAMAGED
B. <input type="checkbox"/> ON SITE (VALVE IS REMOVED FROM INSTAL- LATION BUT REMAINS ON PLANT SITE)	PISTON RINGS WORN, DAMAGED DAMAGE TO SEAT(S)
C. <input type="checkbox"/> OFF-SITE	FUNCTION MATERIAL (WIND, LUBRIC) ON/UNDER SEAT
	DAMAGE TO 2ND STAGE PISTON SET POINT SHIFT - NOT DAMAGE RELATED
	DAMAGED SPRING(S)
	LASTING DEFECTS
	OTHER MANUFACTURING DEFECTS
	IMPROPER ASSEMBLY OR INSTALLATION, MISSING PARTS
	WORN LEAD
	DAMAGED BY SPRING(S) (BEYOND NORMAL WEAR)
	DIAPHRAGM(S) DAMAGED
	GASKET(S) WORN BEYOND NORMAL, EXPECTED WEAR
	BELLOWS DAMAGED, WORN
	BROKEN AIR LINE
	SOLENOID FAILURE
	FAILURE OF AIR OPERATION ASSEMBLY
	OTHER (EXPLAIN IN NARRATIVE)
	NO DAMAGE EXCEPT THAT DIRECTLY RELATING TO FAILURE

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

452. MAINTENANCE/REPAIRING
PERFORMED BY (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

453. MAINTENANCE/REPAIRING
PERFORMED BY (CHECK ONE)

A. ☐ OPERATIONS
B. ☐ MAINTENANCE
C. ☐ CONTRACTOR, LAB.
ON VENDOR

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

(71) ☐ CROSBY VALVE & GAGE CO.
(16) ☐ BIRKERS
(23) ☐ BRESSER VALVE
(2) ☐ GENERAL ELECTRIC CORP.
(22) ☐ ORAND VALVE (NOT INPHUS CORP.)
(20) ☐ TARGET BOB CORP.
(36) ☐ WYLE LABS
OTHER:

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

A. ☐ ACTUATOR STAGES REPLACED
B. ☐ TOPWINGS REPLACED WITH ONE OF SAME SETPOINT
C. ☐ RELAP SEAT, BISC
D. ☐ MACHINE PILOT VALVE BISC
E. ☐ CLEAN & REWORK PILOT ASSEMBLIES
F. ☐ SETPOINT ADJUSTMENT
G. ☐ VALVE INDOAT BOSE SIZE INCREASED
H. ☐ SOLENOID ASSEMBLY REMOVED, REINSTALLED
I. ☐ REWORK STEAM W/COMPRESS UNITILE
J. ☐ REPLACE PISTON RINGS(S)
K. ☐ REPLACE DIAPHRAGM(S)
L. ☐ REPLACE/REPAIR BELLOWS
M. ☐ REPLACE/REPAIR GASKET(S)
N. ☐ REPLACE/REPAIR SPRING(S)
O. ☐ OTHER (EXPLAIN IN NARRATIVE)

MAINTENANCE ACTIVITY (CONT'D.)

SNVS

N63800-00-0045

4/U. DETAILS OF MAINTENANCE/REFURBISHING NARRATIVE:

COMES

480. DATE TESTED AFTER REASSEMBLY (DD/MO/YR) 481. TEST REPORT NUMBERS FOR POST REASSEMBLY BENCH TESTS:

POST REASSEMBLY BENCH TEST RESULTS (ONLY THOSE WHICH MEASURE 'ROUTINE' PARAMETERS SUCH AS SET POINT, BESEAT 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.			

488. DATE REINSTALLED IN SERVICE (DD/MO/YR)

491. COMPONENT ID NUMBER VALVE BEING INSTALLED (UN "S" IF STORED OR "B" IF DISPOSED)

489. TYPE TEST CODE:

- A. SET POINT TEST - STEAM
- B. SET POINT TEST - M₂ (NITROGEN)
- C. OPERATIONAL RELIEF TEST - STEAM
- D. OPERATIONAL RELIEF TEST - M₂
- E. LEAK TEST - STEAM
- F. LEAK TEST - M₂
- N. 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. BESEAT - M₂ CLOSE PRESSURE
- C. VALVE OPENING DELAY TIME
- D. VALVE OPENING DELAY TIME
- E. AUTOMATIC M₂
- F. MAIN DISC OPENING SURE TIME
- G. MAIN DISC OPENING SURE TIME
- H. AUTOMATIC M₂
- I. PILOT STAGE SEAT TIGHTNESS
- J. MAIN STAGE SEAT TIGHTNESS
- K. FLAMMED COMBUSTION GASKET LEAKAGE
- L. OTHER

Prepared by: *Handwritten* 1138
 SHVSAF Approved by: *Handwritten*

MAINTENANCE ACTIVITY

Q80. PLANT Docket #50 - 458

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

Q01. S/R VALVE SERIAL NUMBER 26380-00-0042

Q02. PLANT'S COMPONENT ID PRIOR TO MAINT. (OR "S" IF FROM STORAGE) 1B2LRUFO47B

Q03. TYPE OF MAINTENANCE CODE

- A. ☐ SCHEDULED/ROUTINE MAINTENANCE - NO FAILURE BECOMING 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.

Q04. TYPE REPORT

- A. ☐ COMPLETE
- B. ☒ INCOMPLETE
- C. ☐ ADDITIONAL TO PREVIOUSLY INCOMPLETE REPORT
- D. ☐ REVISIONS TO PREVIOUSLY COMPLETED REPORT

NOTE: FOR C. AND D., ITEMS A-D AND Q30 MUST MATCH THOSE IN REPORT TO BE APPENDED.

NOTE: IF MAINTENANCE IS ASSOCIATED WITH ANY FAILURE, COMPLETE ITEMS Q10 THROUGH Q15. IF NO FAILURE HAS OCCURRED, CONTINUE FROM ITEM Q16.

Q10. DATE OF FAILURE (MM/DD/YY) 8/29/74

Q11. AUTOMATIC PRESSURE SWITCH OPERABLE? ☒ YES OR ☐ NO

Q12. ELECTRIC POWER SUPPLY AVAILABLE? ☒ YES OR ☐ NO

Q13. VOLTAGE OF ELECTRIC POWER SUPPLY 125 VDC

Q15. MODE(S) OF FAILURE DETECTION (CHECK AS MANY AS APPLICABLE)

Q14. 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. ☐ UNEXPECTED OPENING OF S/R VALVE
- X. ☒ OTHER (EXPLAIN IN ITEM Q15)

Q15. MODE(S) OF FAILURE DETECTION (CHECK AS MANY AS APPLICABLE)

- A. ☒ TAILPIPE THERMOCOUPLE READING HIGH
- B. ☐ TRANSDUCER - TAILPIPE PRESSURE SWITCH
- C. ☐ PANEL INDICATOR LIGHTS
- D. ☐ GROUP IN ELECTRICAL OUTPUT
- E. ☐ STEAM FLOW FROM HIGH SWITCH
- F. ☐ INDICATOR IN STEAM FLOW ABOVE STEAM LINES
- G. ☐ RISE IN SUPPRESSION POOL TEMPERATURE
- H. ☐ RISE IN SUPPRESSION POOL LEVEL
- I. ☐ SLIGHT TRANSIENT BUMP IN VESSEL LEVEL
- J. ☐ RADIATION MONITOR(S)
- K. ☐ ACOUSTIC MONITOR(S)
- L. ☐ DIRECT MONITORING POSITION INDICATOR
- M. ☐ INDIRECT MONITORING POSITION INDICATOR
- N. ☐ OTHER (EXPLAIN IN ITEM Q15)

Q16. EFFECT OF FAILURE ON PLANT LOAD (CHECK ONE ONLY)

- A. ☐ PLANT RUN HIGH
- B. ☐ THERMAL TRIP
- C. ☐ MANUAL SCRAM
- D. ☐ AUTOMATIC SCRAM
- E. ☐ EXTENSION OF PWR EXISTING
- F. ☒ SCRAMMING
- G. ☐ MANUAL SCRAMMING
- H. ☐ NO SIGNIFICANT EFFECT

Q17. TEMP. OF ENVIRONMENT AROUND S/R VALVE (IF AVAILABLE)

135°F

Q18. 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 IS TO VERIFICATION OF VALVE PERFORMANCE.

None

MAINTENANCE ACTIVITY (CONT'D.)

SRVS

419. DESCRIPTION OF FAILURE, INCLUDING DETECTION MADE: *Seat leakage detected from tailpipe temperature data. Extent of erosion/storm cutting will be determined upon disassembly. Leakage is not considered excessive.*

434. 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 - INCLUDING 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 M₂ (MINIMUM)
- C. OPERATIONAL RELIEF TEST STEAM
- D. OPERATIONAL RELIEF TEST M₂
- E. LEAK TEST STEAM
- F. LEAK TEST M₂
- 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 RECLOSURE PRESSURE
- C. VALVE OPENING DELAY TIME
- D. VALVE OPENING DELAY TIME
- E. MAIN DISC OPENING STROKE TIME
- F. MAIN DISC OPENING STROKE TIME
- G. PILOT STAGE SEAL TIGHTNESS
- H. MAIN STAGE SEAL TIGHTNESS
- I. FLANGED CONNECTION GASKET LEAKAGE
- J. OTHER _____

451. MAINTENANCE/REFURBISHING PERFORMED (CHECK ONE) (SEEK ONE)

- A. ☐ IN-SITU (VALVE REMAINS IN PLACE)

B. ☐ ON SITE (VALVE IS REMOVED FROM INSTALATION BUT REMAINS ON PLANT SITE)

C. ☐ OFF-SITE

452. MAINTENANCE/REFURBISHING PERFORMED BY (CHECK ONE)

- A. ☐ OPERATIONS

B. ☐ MAINTENANCE

C. ☐ CONTRACTOR, LAB, OR VENDOR

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

(711) ☐ (MOSBY VALVE & GAGE CO.)

(816) ☐ (BARKERS)

(824) ☐ (BRESTER VALVE)

(828) ☐ (GENERAL ELECTRIC CORP.)

(8999) ☐ (ORAND VALVE (NOT MPB'S CODE))

(1020) ☐ (TAYLOR ROCK CORP.)

(1336) ☐ (WYLE LABS)

OTHER: ☐

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

- A. ☐ ACTUATION STAGES REPLACED

B. ☐ TOPWORKS REPLACED WITH ONE OF SAME SETPOINT

C. ☐ RELAP SEAT, DISC

D. ☐ MACHINE PILOT VALVE DISC

E. ☐ CLEAN & REMOIN PILOT ASSEMBLIES

F. ☐ SETPOINT ADJUSTMENT

G. ☐ VALVE TIGHTEN BORE SIZE INCREASED

H. ☐ SOLENOID ASSEMBLY REMOVED, REINSTALLED

I. ☐ REORIFICE STEAM MODULATOR UNIFILE

J. ☐ REPLACE PISTON RINGS

K. ☐ REPLACE DIAPHRAGM(S)

L. ☐ REPLACE/REPAIR BELLOWS

M. ☐ REPLACE/REPAIR GASKET(S)

N. ☐ REPLACE/REPAIR SPRING(S)

O. ☐ OTHER (EXPLAIN IN NARRATIVE)

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

455. OBSERVED DAMAGE/CAUSE OF FAILING (IF FAILURE HAS OCCURRED)	456. CAUSE OF FAILURE / DAMAGE RESULTING FROM FAILURE (IF FAILURE HAS OCCURRED)
A. <input type="checkbox"/>	<input type="checkbox"/> PILOT DISC STEAM (W) OR DAMAGED PISTON RING (W) OR, DAMAGED
B. <input type="checkbox"/>	<input type="checkbox"/> DAMAGE TO SEAT(S)
C. <input type="checkbox"/>	<input type="checkbox"/> FUELIGN MATERIAL (WIND, LIND) ON/UNDER SEAT
D. <input type="checkbox"/>	<input type="checkbox"/> DAMAGE TO 2ND STAGE PISTON
E. <input type="checkbox"/>	<input type="checkbox"/> SET POINT UNIT - NOT DAMAGE RELATED
F. <input type="checkbox"/>	<input type="checkbox"/> DAMAGED SPRING(S)
G. <input type="checkbox"/>	<input type="checkbox"/> LASTING DEFECTS
H. <input type="checkbox"/>	<input type="checkbox"/> OTHER MANUFACTURING DEFECTS
I. <input type="checkbox"/>	<input type="checkbox"/> IMPROPER ASSEMBLY OR INSTALLATION, MISSING PARTS
J. <input type="checkbox"/>	<input type="checkbox"/> NORMAL WEAR
K. <input type="checkbox"/>	<input type="checkbox"/> DAMAGED VALVE RINGS (S) (BEYOND NORMAL WEAR)
L. <input type="checkbox"/>	<input type="checkbox"/> DIAPHRAGM(S) DAMAGE
M. <input type="checkbox"/>	<input type="checkbox"/> GASKET(S) WORN BEYOND NORMAL, EXPELLD MEAN
N. <input type="checkbox"/>	<input type="checkbox"/> BELLOWS DAMAGED, WORN
O. <input type="checkbox"/>	<input type="checkbox"/> BROKEN AIR LINE
P. <input type="checkbox"/>	<input type="checkbox"/> SOLENOID FAILURE
Q. <input type="checkbox"/>	<input type="checkbox"/> FAILURE OF AIR SUPPLATION ASSEMBLY
R. <input type="checkbox"/>	<input type="checkbox"/> OTHER (EXPLAIN IN NARRATIVE)
S. <input type="checkbox"/>	<input type="checkbox"/>
T. <input type="checkbox"/>	<input type="checkbox"/>
U. <input type="checkbox"/>	<input type="checkbox"/>
V. <input type="checkbox"/>	<input type="checkbox"/>
W. <input type="checkbox"/>	<input type="checkbox"/>
X. <input type="checkbox"/>	<input type="checkbox"/>
Y. <input type="checkbox"/>	<input type="checkbox"/>
Z. <input type="checkbox"/>	<input type="checkbox"/>

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

PLANT BOOKLET # 50-458
S/N VALVE SERIAL NUMBER

N63800-00-0042

MAINTENANCE ACTIVITY (CONT'D.)

SHVS

4/0. DETAILS OF MAINTENANCE/REFURBISHING NARRATIVE:

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
G. OTHER

483. DATE TESTED AFTER REASSEMBLY (DD/MM/YY)
481. TEST REPORT NUMBERS FOR POST REASSEMBLY BENCH TESTS:
POST REASSEMBLY BENCH TEST RESULTS (ONLY THOSE WHICH MEASURE PERTINENT PARAMETERS SUCH AS SET POINT, BESEAT PRESSURE, ETC.)

484. TEST TYPE CODE (SELECT ONE PER LINE)
485. PARAMETER MEASURED CODE (SELECT ONE PER LINE)
486. NUMERICAL RESULTS ON 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.				

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. BESEAT - RELIEF PRESSURE
- C. VALVE OPENING DELAY TIME
- D. VALVE OPENING DELAY TIME
- E. AUTOMATIC WIND
- F. MAIN BISC OPENING SUTURE TIME
- G. MAIN BISC OPENING SUTURE TIME
- H. AUTOMATIC WIND
- I. FIRST STAGE SEAT TIGHTNESS
- J. MAIN STAGE SEAT TIGHTNESS
- K. FLANGED CONNECTION GASKET LEAKAGE
- L. OTHER

480. DATE REINSTALLED IN SERVICE (DD/MM/YY)
491. COMPONENT ID WHEN VALVE BE INSTALLED (UN "S" IF STORED OR "Q" IF DISPOSED)

SHVSCB Approved By: *[Signature]* 1138
Prepared By: *[Signature]*

MAINTENANCE ACTIVITY 000. PLANT LOGSHEET #50 - 4-58

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

401. S/R VALVE SERIAL NUMBER N63800-00-0035

402. PLANT'S COMMENT TO PIAUM TO MAINT. (ON "S" IF FROM STURGES) 1821KRVFO41C

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

NOTE: IF MAINTENANCE IS ASSOCIATED WITH ANY FAILURE, COMPLETE ITEMS 410 THROUGH 412. IF NO FAILURE HAS OCCURRED, CONTINUE FROM ITEM 430.

410. DATE OF FAILURE (MO/DA/YR) 10/25/87

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

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

413. VOLTAGE OF ELECTRIC POWER SUPPLY 125 VDC

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

414. TYPE FAILURE (CHECK AS MANY AS APPLICABLE)

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

- A. ☒ TAILPIPE THERMOCOUPLE READING HIGH
- B. ☐ ANNUNCIATOR - TAILPIPE PRESSURE SWITCH
- C. ☐ PANEL INDICATOR LIGHTS
- D. ☐ BEEP IN ELECTRICAL OUTPUT
- E. ☐ STEAM FLOW FROM MISMATCH
- F. ☐ INCREASE IN STEAM FLOW AROUND STEAM LINES
- G. ☐ RISE IN SUPPRESSION POOL TEMPERATURE
- H. ☐ RISE IN SUPPRESSION POOL LEVEL
- I. ☐ SLIGHT TRANSIENT BEEP IN VESSEL LEVEL
- J. ☐ RADIATION MONITORING
- K. ☐ ACOUSTIC MONITORING
- L. ☐ DIRECT MONITORING
- M. ☐ INDIRECT MONITORING
- N. ☐ OTHER (EXPLAIN IN ITEM 419)

416. EFFECT OF FAILURE ON PIAUM (USE THESE ONLY)

- A. ☐ PLANT IN MAINTENANCE
- B. ☐ TAILPIPE TRIP
- C. ☐ MANUAL SCRAM
- D. ☐ AUTOMATIC SCRAM
- E. ☐ EXTENSION OF PIAUM EXISTING
- F. ☐ SIGNIFICANT
- G. ☒ NO SIGNIFICANT EFFECT

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

418. WHEN THERE ARE ATTACHMENTS (LIFT, POSITION INDICATOR, ETC.) ATTACHED TO S/R VALVE NOT DEPICTED ON ORIGINAL "AS FURNISHED" VALVE? IF SO, SPECIFY HOW AND WHEN ATTACHED. REFERENCE IS TO VERIFY COMPATIBILITY WITH VALVE PERFORMANCE.

None

MAINTENANCE ACTIVITY (CONT'D.)

SAVS

419. INSCRIPTION OF FAILURE, INCLUDING DETECTION METHOD: *Seal leakage detected from tailpipe temperature data. Leakage is not considered excessive. Extent of erosion/str. cutting will be determined upon disassembly.*

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. 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 M₂ (MINIMUM)
- C. OPERATIONAL RELIEF TEST STEAM
- D. OPERATIONAL RELIEF TEST M₂
- E. LEAK TEST STEAM
- F. LEAK TEST M₂
- 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
- D. VALVE OPENING DELAY TIME
- E. VALVE OPENING DELAY TIME
- F. MAIN DISC OPENING STROKE TIME
- G. MAIN DISC OPENING STROKE TIME
- H. PILOT STAGE SEAT TIGHTNESS
- I. MAIN STAGE SEAT TIGHTNESS
- J. FLANGED CONNECTION GASKET LEAKAGE
- K. OTHER _____

MAINTENANCE ACTIVITY (CONT'D.)

455. OBSERVED DAMAGE/CAUSE OF FAILING (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.)

451. MAINTENANCE/REFURBISHING
 PERFORMED (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 (CHECK ONE)

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

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

- 1. ☐ (MOSBY VALVE & GAGE CO.)
- 2. ☐ (BIBBERS)
- 3. ☐ (MESSER VALVE)
- 4. ☐ (GENERAL ELECTRIC CORP.)
- 5. ☐ (GRAND VALVE (NOT SUPPLIES (CODE)
- 6. ☐ (TARGET BUCK CORP.)
- 7. ☐ (WYLE LABS)
- 8. ☐ OTHER:

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

- A. ☐ ACTUATION STAGES REPLACED
- B. ☐ TOPMANS REPLACED WITH ONE OF SAME SETPOINT
- C. ☐ RELAP SEAT, DISC
- D. ☐ MACHINE PILOT VALVE DISC
- E. ☐ CLEAN & REMARK PILOT ASSEMBLIES
- F. ☐ SETPOINT ADJUSTMENT
- G. ☐ VALVE TIGHTENED
- H. ☐ VALVE TIGHTENED SIZE INCREASED
- I. ☐ SOLENOID ASSEMBLY REMOVED, REINSTALLED
- J. ☐ REPAIR/STEAM MOUNTING UNIT
- K. ☐ REPLACE PISTON RINGS(A)
- L. ☐ REPLACE PISTON RINGS(B)
- M. ☐ REPLACE DIAPHRAGM(S)
- N. ☐ REPLACE/REPAIR BELLOWS
- O. ☐ REPLACE/REPAIR GASKET(S)
- P. ☐ REPLACE/REPAIR SPRING(S)
- Q. ☐ OTHER (EXPLAIN IN NARRATIVE)

455. OBSERVED DAMAGE/CAUSE OF FAILING (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.)

- A. ☐ PILOT DISC STEAM (OUT OR DAMAGED)
- B. ☐ PISTON RINGS (WORN, DAMAGED)
- C. ☐ DAMAGE TO SEAT(S)
- D. ☐ FOREIGN MATERIAL (WIND, LIME) ON/UNDER SEAT
- E. ☐ DAMAGE TO PISTON STAGE PISTON
- F. ☐ SET POINT BUSH - NOT DAMAGE RELATED
- G. ☐ DAMAGED SPRING(S)
- H. ☐ LASTING EFFECTS
- I. ☐ OTHER MANUFACTURING DEFECTS
- J. ☐ IMPROPER ASSEMBLY ON INSTALLATION, MISSING PARTS
- K. ☐ DIAPHRAGM(S) DAMAGED
- L. ☐ BELLOWS (S) DAMAGED
- M. ☐ GASKET(S) WORN BEYOND NORMAL, EXPELLER MEAN
- N. ☐ BELLOWS DAMAGED, WORN
- O. ☐ BROKEN AIR LINE
- P. ☐ SOLENOID FAILURE
- Q. ☐ FAILURE OF AIR OPERATION ASSEMBLY
- R. ☐ OTHER (EXPLAIN IN NARRATIVE)
- S. ☐ NO DAMAGE EXCEPT THAT DIRECTLY RELATING TO FAILURE

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

MAINTENANCE ACTIVITY (CON'D.)

SAMS

S/N VALVE SERIAL NUMBER

163300-00-0035

4/4). DETAILS OF MAINTENANCE / REFURBISHING NARRATIVE:

DATE LISTED AFTER
REASSESSMENT (MM/DD/YY)

POSSIBLE ASSEMBLY DESIGN TEAM BE SAMPLE (CONVY TOWNS MEDICAL MEASUREMENT PARAMETERS)

484.
1151 TYPE CODE
1151 SELECT DATE PM
1151

985.
PARAMEYER M. ASHED
CODE (SECRET)
PER LINE

4856.
NUMERICAL RESULTS ON TEST
INCLUDE THIS FOR GIVE
LEARN RATE AND HALF-
LEARN FIVE LEARN TESTS

RESULTS OF TEST
ACCEPTABLE?
YES or NO

4341. DATE INSTALLED IN SERVICE
(日/月/年)

491. (COMPONENT 1) IDENTIFY VALVE BE INSTALLED
(USE $\frac{1}{2}$ IF SPREAD IS $\frac{1}{2}$ " IF 1" SPREAD)

53807

SET POINT TEST, STEAM
SET POINT TEST, M₂ (IN TROCEM)
OPERATIONAL RELIEST TEST STEAM
OPERATIONAL RELIEST M₂
LEAN TEST STEAM
LEAN TEST M₂
STEAM

Q 15. PARASITES IN THE SLIMES (ONE SLIMY ONE PARASITEN PER TEST. IF MORE THAN ONE PARASITEN IS REASSED IN A TEST, REPEAT TEST (VOLUME 1)

[illegible]

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

401. S/R VALVE SERIAL NUMBER N6380-00-0037

402. PLANT'S COMMENT TO MAINT. (OR "S" IF FROM STORAGE) 1851XRUFO41F

403. TYPE OF MAINTENANCE CODE

- A. ☐ SCHEDULED/ROUTINE MAINTENANCE - NO FAILURE RECORDING
 B. ☒ MAINTENANCE WAS REQUIRED SINCE LAST MAINTENANCE PERIOD
 C. ☐ AFTER A NON-CATASTROPHIC FAILURE OCCURRED
 D. ☐ AFTER A MAJOR CATASTROPHIC FAILURE OCCURRED
 E. ☐ MAINTENANCE REQUIRED IMMEDIATE MAINTENANCE - A FAILURE IN CIRCLED
 F. ☐ VALVE RELOCATION REPORT ONLY - VALVE INSTALLED WITH
 G. ☐ NO MAINTENANCE PERFORMED.

404. TYPE REPORT

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

NOTE: FOR C. AND D., ITEMS A-D AND 400 MUST MATCH
 THOSE ON REPORT TO BE APPROVED.

NOTE: IF MAINTENANCE IS ASSOCIATED WITH ANY FAILURE, COMPLETE ITEMS 410 THROUGH 419. IF NO FAILURE HAS OCCURRED, CONTINUE FROM ITEM 421.

410. DATE OF FAILURE (Mo/Da/Yr) 12/25/84

411. AUTOMATIC PRESSURE SWITCH OPERABLE?

☒ YES OR ☐ NO

412. ELECTRIC POWER SUPPLY AVAILABLE?

☒ YES OR ☐ NO

413. VOLTAGE OF ELECTRIC POWER SUPPLY

125 VDC

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

415. TYPE FAILURE (CHECK AS MANY AS APPLICABLE)

- A. ☐ LIFTED PREMATURELY
 B. ☐ LIFTED BEYOND SETPOINT
 C. ☐ LIFTED PAST SETPOINT
 D. ☐ FAILED TO LIFT
 E. ☐ FAILED TO BE CLOSED
 F. ☐ FAILED TO FULLY BE SEAT
 G. ☐ LEAKAGE (OTHER THAN MINOR)
 H. ☐ INADEQUATE OPENING OF
 I. ☐ S/R VALVE
 J. ☒ OTHER (EXPLAIN IN ITEM 419)

- A. ☐ TAILPIPE INCOMPLETE READING HIGH
 B. ☐ TAILPIPE INCOMPLETE READING LOW
 C. ☐ TAILPIPE PRESSURE SWITCH
 D. ☐ PANEL INDICATOR LIGHTS
 E. ☐ NOOP IN ELECTRICAL OUTPUT
 F. ☐ STEAM FEED FLOW IN SHUTTER
 G. ☐ INCREASE IN STEAM FLOW ALONG STEAM LINES
 H. ☐ RISE IN SUPPRESSION POOL TEMPERATURE
 I. ☐ RISE IN SUPPRESSION POOL LEVEL
 J. ☐ SLIGHT TRANSIENT DROP IN VESSEL LEVEL
 K. ☐ RADIATION MONITOR(S)
 L. ☐ ACOUSTIC MONITOR(S)
 M. ☐ DIRECT MONITORING POSITION INDICATOR
 N. ☐ INDIRECT MONITORING POSITION INDICATOR
 O. ☐ OTHER (EXPLAIN IN ITEM 419)

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

- A. ☐ POWER BEHIND FROM
 B. ☐ TUBING TRIP
 C. ☐ MANUAL SCRAM
 D. ☐ AUTOMATIC SCRAM
 E. ☐ EXTENSION OF PULSATION
 F. ☐ SCRAMMING
 G. ☒ MANUAL SCRAMMING
 H. ☐ NO SIGNIFICANT EFFECT

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

135°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 UNIT AND WHEN ATTACHED. REFERENCE IS TO VERIFY COMPATIBILITY WITH VALVE PERFORMANCE.

None

MAINTENANCE ACTIVITY (CONT'D.)

SAVS

419. INSCRIPTION OF FAILURE, INCLUDING DETECTION PHONE. *Test leakage detected from tailpipe temperature data. Leakage is not considered excessive. Extent of injury from rusting of seats will be determined upon disassembly.*

430. DATE REMOVED FROM SERVICE (MO/DA/YR)		434. TYPE TEST CODE:	
"AS FOUND" TESTS PERFORMED PRIOR TO DISASSEMBLY: 435. PARAMETER MEASURED CODE (SELECT ONE PER LINE) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____		A. SET POINT TEST STEAM B. SET POINT TEST M ₂ (MINIMUM) C. OPERATIONAL RELIEF TEST STEAM D. LEAK TEST STEAM E. LEAK TEST M ₂ F. OTHER _____	
		437. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO" 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____	
436. NUMERICAL RESULTS OF TESTS - INCLUDE UNITS OR GIVE LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____		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. SEAT RECLOSURE PRESSURE C. VALVE OPENING DELAY TIME D. VALVE OPENING DELAY TIME E. MAIN DISC OPENING STROBE TIME F. MAIN DISC OPENING STROBE TIME G. PILOT STAGE SEAT TIGHTNESS H. MAIN STAGE SEAT TIGHTNESS I. FLANGED CONNECTION GASKET LEAKAGE J. OTHER _____	

451. MAINTENANCE/REPAIRS PERFORMED (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/REPAIRS PERFORMED BY (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 ☐

B167 ☐

B243 ☐

C082 ☐

P999 ☐

T020 ☐

M336 ☐

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/FAILURE

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. ☐

456. 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. ☐

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

PISTON DISC STEAM (LUT OR DAMAGED PISTON RINGS WHEN DAMAGED)

FOREIGN MATERIAL (LINT, LARD) ON/UNDER SEAT

DAMAGE TO TWO STAGE PISTON SET POINT SHUTT - NOT DAMAGE RELATED

DAMAGED SPRING(S)

LASTING EFFECTS

OTHER MANUFACTURING DEFECTS

IMPROPER ASSEMBLY OR INSTALLATION, MISSING PARTS

ABNORMAL LEAK

DAMAGED "O" RINGS (BEYOND NORMAL WEAR)

DIAPHRAGM(S) DAMAGED

GASKET(S) WHEN BEYOND NORMAL, EXPECTED DEAM

BELLOWS DAMAGED, MOON

BROKEN AIR LINE

SOLENOID FAILURE

FAILURE OF AIR OPERATION ASSEMBLY

OTHER (EXPLAIN IN NARRATIVE)

NO DAMAGE EXCEPT THAT DIRECTLY RELATING TO FAILURE

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

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. ☐

ACTUATION STAGES REPLACED

TOPGROSS REPLACED WITH ONE OF SAME SETPOINT

RELAP SEAT, DISC

MACHINE PILOT VALVE DISC

CLEAN & REWORK PILOT ASSEMBLIES

SETPOINT ADJUSTMENT

VALVE TIGHTEN BURE

SOLENOID ADJUSTMENT

SOLENOID ASSEMBLY REMOVED, REINSTALLED

REWORK STEAM IN DOWNHOLE UNIFILE

REPLACE PISTON RING(S)

REPLACE "O" RINGS

REPLACE DIAPHRAGM(S)

REPLACE/REPAIR BELLOWS

REPLACE/REPAIR GASKET(S)

REPLACE/REPAIR SPRING(S)

OTHER (EXPLAIN IN NARRATIVE)

MAINTENANCE ACTIVITY (CONT'D.)

SHVS

N63800-00-0037

4/0. DETAILS OF MAINTENANCE/REFURBISHING MAINTENANCE:

CODES

404. TYPE TEST CODE:

- A. SET POINT TEST - STEAM
- B. SET POINT TEST - H₂ (INTENSIVE)
- C. OPERATIONAL RELIEF TEST - STEAM
- D. OPERATIONAL RELIEF TEST - H₂
- E. LEAK TEST - STEAM
- F. LEAK TEST - H₂
- 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 - ALLGASE PRESSURE
- C. VALVE OPENING DELAY TIME
- D. VALVE OPENING DELAY TIME
- E. AUTOMATIC P. M.
- F. MAIN DISC OP. M. SURE TIME
- G. MAIN DISC OPENING SURE TIME
- H. AUTOMATIC P. M.
- I. P. M. STAGE SEAT TIGHTNESS
- J. MAIN STAGE SEAT TIGHTNESS
- K. FLANGED CONNECTION GASKET LEAKAGE
- L. OTHER

400. DATE TESTED AFTER REASSEMBLY (MO/DA/YR) 401. 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.)

404. TEST TYPE CODE (SELECT ONE PER LINE)
405. PARAMETER MEASURED CODE (SELECT ONE PER LINE)
406. NUMERICAL RESULTS OR TEST INCLUDE UNITS (OR GIVE LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS)
407. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"

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

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

421. COMPONENT ID NUMBER VALVE BE INSTALLED (OR "S" IF STORED OR "D" IF DISPOSED)

Prepared by: *[Signature]*
Approved by: *[Signature]*

MAINTENANCE ACTIVITY

PAGE 1 OF 4

0000 PLANT LOCKST #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 N63800-00-0043

402. PLANT'S COMMENT TO MAINT. (UN "S" IF FROM STORAGE) 1821KRVFO47C

403. TYPE OF MAINTENANCE CODE

- ☐ A. SCHEDULED/ROUTINE MAINTENANCE - NO FAILURE BEGINNING MAINTENANCE WAS OCCURRED SINCE LAST MAINTENANCE PERIOD
- ☒ B. IMMEDIATE MAINTENANCE - SCHEDULED FOR NEXT OUTAGE AFTER A NON-CATASTROPHIC FAILURE OCCURRED
- ☐ C. INSURANCE/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 INCORPORATED REPORT
- ☐ D. REVISIONS TO PREVIOUSLY COMPLETED REPORT

NOTE: FOR C. AND D., ITEMS A-D AND 430 MUST MATCH THOSE ON REPORT TO BE APPROVED.

NOTE: IF MAINTENANCE IS ASSOCIATED WITH ANY FAILURE, COMPLETE ITEMS 410 THROUGH 415. IF NO FAILURE HAS OCCURRED, CONTINUE FROM ITEM 416.

410. DATE OF FAILURE (MM/DD/YY) 10/25/94

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

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

413. VOLTAGE OF ELECTRIC POWER SUPPLY 125VDC

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

414. TYPE FAILURE (CHECK AS MANY AS APPLICABLE)

- ☐ A. LIFTED UNNATURALLY
- ☐ B. LIFTED BELOW SETPOINT
- ☐ C. LIFTED PAST SETPOINT
- ☐ D. FAILED TO LIFT
- ☐ E. FAILED TO RECLOSE
- ☐ F. LEAKAGE (OTHER THAN MINOR)
- ☐ G. UNEXPECTED OPENING OF S/R VALVE
- ☒ H. OTHER (EXPLAIN IN ITEM 415)

- ☒ A. TAILPIPE THERMOCOUPLE READING HIGH
- ☐ B. AMMUNITION - TAILPIPE PRESSURE SWITCH
- ☐ C. PANEL INDICATOR LIGHTS
- ☐ D. DROP IN ELECTRICAL OUTPUT
- ☐ E. STEAM-TOO FLOW MISMATCH
- ☐ F. MEASURE 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 MONITORING POSITION INDICATOR
- ☐ M. INDIRECT MONITORING POSITION INDICATOR
- ☐ N. OTHER (EXPLAIN IN ITEM 415)

416. EFFECT OF FAILURE ON PLANT (UN "S" IF FROM ONLY)

- ☐ A. PLANT IN NORMAL OPERATION
- ☐ B. PLANT IN NORMAL OPERATION
- ☐ C. PLANT IN NORMAL OPERATION
- ☐ D. PLANT IN NORMAL OPERATION
- ☐ E. PLANT IN NORMAL OPERATION
- ☐ F. PLANT IN NORMAL OPERATION
- ☒ G. NO SIGNIFICANT EFFECT

417. TEMP. OF ENVIRONMENT AROUND S/R VALVE (IF AVAILABLE) 135°F

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

[Signature]

SRVS

PLANT IDENT # 50-458

PAGE 2 OF 4

MAINTENANCE ACTIVITY (CONT'D.)

S/M VALVE SERIAL NUMBER N63800-00 - 0043

419. INSCRIPTION OF FAILURE, INCLUDING DETECTION PHONE: Seat leakage detected from tailpipe temperature data.
Leakage is not considered excessive. Extent of erosion/stm cutting of seats will
be determined upon disassembly.

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. NUMERICAL RESULTS OF TESTS - INCLUDE LIMITS 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 M₂ (MINIMUM)
- C. OPERATIONAL RELIEF TEST STEAM
- D. OPERATIONAL RELIEF TEST M₂
- E. LEAK TEST STEAM
- F. LEAK TEST M₂
- 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 LEAK PRESSURE
- B. RESET - RECLOSURE PRESSURE
- C. VALVE OPENING DELAY TIME
- D. VALVE OPENING DELAY TIME
- E. VALVE OPENING DELAY TIME
- F. VALVE OPENING DELAY TIME
- G. MAIN DISC OPENING STROKE TIME
- H. MAIN DISC OPENING STROKE TIME
- I. MAIN DISC OPENING STROKE TIME
- J. MAIN DISC OPENING STROKE TIME
- K. MAIN DISC OPENING STROKE TIME
- L. MAIN DISC OPENING STROKE TIME
- M. MAIN DISC OPENING STROKE TIME
- N. MAIN DISC OPENING STROKE TIME
- O. MAIN DISC OPENING STROKE TIME
- P. MAIN DISC OPENING STROKE TIME
- Q. MAIN DISC OPENING STROKE TIME
- R. MAIN DISC OPENING STROKE TIME
- S. MAIN DISC OPENING STROKE TIME
- T. MAIN DISC OPENING STROKE TIME
- U. MAIN DISC OPENING STROKE TIME
- V. MAIN DISC OPENING STROKE TIME
- W. MAIN DISC OPENING STROKE TIME
- X. MAIN DISC OPENING STROKE TIME
- Y. MAIN DISC OPENING STROKE TIME
- Z. MAIN DISC OPENING STROKE TIME

MAINTENANCE ACTIVITY (CONT'D.)

451. OBSERVED DAMAGE / CAUSE OF FAILURE (ENTER 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 / CAUSE OF FAILURE	456. OBSERVED DAMAGE / CAUSE OF FAILURE / CAUSE OF FAILURE
A. <input type="checkbox"/> IN SITU (VALVE REMAINS IN PLACE)	A. <input type="checkbox"/> PILOT DISC STEAM (OR) OR DAMAGED PISTON RINGS (OR) OR DAMAGED
B. <input type="checkbox"/> ON SITE (VALVE IS REMOVED FROM INSTALLATION BUT REMAINS ON PLANT SITE)	B. <input type="checkbox"/> DAMAGE TO SEAT(S)
C. <input type="checkbox"/> OFF-SITE	C. <input type="checkbox"/> FUNCTION MATERIAL (WORN, CRACKED) OR UNDER SEAT
	D. <input type="checkbox"/> DAMAGE TO 2ND STAGE PISTON
	E. <input type="checkbox"/> SET POINT BRIST - NOT DAMAGE RELATED
	F. <input type="checkbox"/> DAMAGED SPRING(S)
	G. <input type="checkbox"/> CASTING DEFECTS
	H. <input type="checkbox"/> OTHER MANUFACTURING DEFECTS
	I. <input type="checkbox"/> IMPROPER ASSEMBLY OR INSTALLATION, MISSING PARTS
	J. <input type="checkbox"/> MINOR LEAK - RINGS (S) (BEYOND NORMAL WEAR)
	K. <input type="checkbox"/> DAMAGED BY - RINGS (S) (BEYOND NORMAL WEAR)
	L. <input type="checkbox"/> DIAPHRAGM(S) DAMAGED
	M. <input type="checkbox"/> GASKET(S) BLOWN BEYOND NORMAL, EXPLoded MEAN
	N. <input type="checkbox"/> BELLOW DAMAGED, WORN
	O. <input type="checkbox"/> BROKEN AIR LINE
	P. <input type="checkbox"/> SOLENOID FAILURE
	Q. <input type="checkbox"/> FAILURE OF AIR OPERATION ASSEMBLY
	R. <input type="checkbox"/> OTHER (EXPLAIN IN NARRATIVE)
	S. <input type="checkbox"/> NO DAMAGE EXCEPT THAT DIRECTLY RELATING TO FAILURE

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

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

A. <input type="checkbox"/>
B. <input type="checkbox"/>
C. <input type="checkbox"/>
D. <input type="checkbox"/>
E. <input type="checkbox"/>
F. <input type="checkbox"/>
G. <input type="checkbox"/>
H. <input type="checkbox"/>
I. <input type="checkbox"/>
J. <input type="checkbox"/>
K. <input type="checkbox"/>
L. <input type="checkbox"/>
M. <input type="checkbox"/>
N. <input type="checkbox"/>
O. <input type="checkbox"/>
P. <input type="checkbox"/>
Q. <input type="checkbox"/>
R. <input type="checkbox"/>
S. <input type="checkbox"/>
T. <input type="checkbox"/>
U. <input type="checkbox"/>
V. <input type="checkbox"/>
W. <input type="checkbox"/>
X. <input type="checkbox"/>
Y. <input type="checkbox"/>
Z. <input type="checkbox"/>

456. ACTUATION STAGES DEPICTED
 COMMENTS REPAIRED WITH ONE OF SAME SETPOINT
 REPAIR SEAT, DISC
 MACHINE PILOT VALVE DISC
 CLEAN & REMOVED PILOT ASSEMBLIES
 SETPOINT ADJUSTMENT
 VALVE INJECTOR BORE SIZE INCREASED
 SOLENOID ASSEMBLY REMOVED, REINSTALLED
 REPAIR STEAM DIAPHRAGM
 REPLACE PISTON RING(S)
 REPLACE PISTON RING(S)
 REPLACE DIAPHRAGM(S)
 REPLACE / REPAIR BELLOW(S)
 REPLACE / REPAIR GASKET(S)
 REPLACE / REPAIR SPRING(S)
 OTHER (EXPLAIN IN NARRATIVE)

MAINTENANCE ACTIVITY (CONT'D.)

SHVS

PAGE 4 OF 4

4/0. DETAILS OF MAINTENANCE/REFURBISHING NARRATIVE:

400. DATE TESTED AFTER REASSEMBLY (Mo/Da/Yr) 401. 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.)

404. TEST TYPE CODE (SELECT ONE PER LINE)	405. PARAMETER MEASURED (CODE (SELECT ONE PER LINE))	406. NUMERICAL RESULTS ON TEST INCLUDE UNITS (OR GIVE LEAKAGE RATE OR RATE "NO LEAK" FOR LEAKAGE TESTS)	407. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____

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

409. COMPONENT ID NUMBER VALVE REINSTALLED (OR "S" IF STOKED OR "D" IF DISPOSED)

CODES

404. TYPE TEST CODE:

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

405.

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 - RELIEF PRESSURE
- C. VALVE OPENING DELAY TIME
- D. VALVE OPENING DELAY TIME
- E. MAIN DISC OPENING SMOKE TIME
- F. MAIN DISC OPENING SMOKE TIME
- G. AUTOMATIC PUMP
- H. PUMP STAGE SEAT TIGHTNESS
- I. PUMP STAGE SEAT TIGHTNESS
- J. FLANGED CONNECTION GASKET LEAKAGE
- K. OTHER

MAINTENANCE ACTIVITY

QND. PLANT Docket #50-458

SHV578 Approved By: *[Signature]* 1138

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

401. S/R VALVE SERIAL NUMBER 163800-00-0044

402. PLANT'S EQUIPMENT ID FROM TO MAINT. (LOW "S" IF FROM STORAGE) 1821*RVF047D

403. TYPE OF MAINTENANCE CODE

- A. ☐ SCHEDULED/ROUTINE MAINTENANCE - NO FAILURE REGARDING MAINTENANCE HAS OCCURRED SINCE LAST MAINTENANCE PERIOD
- B. ☒ NON IMMEDIATE MAINTENANCE - SCHEDULED FOR NEXT OUTAGE AFTER A NON-CATASTROPHIC FAILURE OCCURRED
- C. ☐ 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 INCOMPLETE REPORT

NOTE: FOR C. AND D., ITEMS A-D AND QND MUST MATCH THOSE ON REPORT TO BE APPROVED.

NOTE: IF MAINTENANCE IS ASSOCIATED WITH ANY FAILURE, COMPLETE ITEMS 410 THROUGH 415. IF NO FAILURE HAS OCCURRED, CONTINUE FROM ITEM 416.

410. DATE OF FAILURE (MO/DA/YR) 12/13/94

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

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

413. VOLTAGE OF ELECTRIC POWER SUPPLY 125VDC

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

- A. ☒ TAILPIPE THERMOCOUPLE READING HIGH
- B. ☐ TAILPIPE PRESSURE SWITCH
- C. ☐ PANEL INDICATOR LIGHTS
- D. ☐ LOSS OF ELECTRICAL OUTPUT
- E. ☐ STEAM FEED FLOW METER
- F. ☐ INDICATOR 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. ☐ ALARM MONITOR(S)
- L. ☐ DIRECT MONITORING POSITION INDICATOR
- M. ☐ INDIRECT MONITORING POSITION INDICATOR
- N. ☐ OTHER (EXPLAIN IN ITEM 415)

415. TYPE FAILURE (CHECK AS MANY AS APPLICABLE)

- A. ☐ LIFTED PREMATURELY
- B. ☐ LIFTED BEYOND SETPOINT
- C. ☐ LIFTED PAST SETPOINT
- D. ☐ FAILED TO LIFT
- E. ☐ FAILED TO BE CLOSE
- F. ☐ LEAKAGE (OTHER THAN MINOR)
- G. ☐ UNDESIRABLE OPENING OF S/R VALVE
- H. ☒ OTHER (EXPLAIN IN ITEM 415)

416. EFFECT OF FAILURE ON PLANT (USE CHECKER ONE ONLY)

- A. ☐ PLANT BEYOND OPERATION
- B. ☐ PLANT BEYOND TRIP
- C. ☐ PLANT BEYOND MANUAL SCRAM
- D. ☐ AUTOMATIC SCRAM
- E. ☐ EXTENSION OF PLANT EXISTING
- F. ☐ SIGNIFICANT
- G. ☒ NO SIGNIFICANT EFFECT

417. TEMP. OF ENVIRONMENT AROUND S/R VALVE (IF AVAILABLE) 135°F

418. WHEN THERE ARE ATTACHMENTS (LIFT, POSITION INDICATOR, ETC.) ATTACHED TO S/R VALVE NOT DEPICTED ON ORIGINAL "AS FURNISHED" VALVE? IF SO, SPECIFY HOW AND WHEN ATTACHED. REFERENCE IS TO BE PERFORMED TO VERIFY COMPATIBILITY WITH VALVE PERFORMANCE:

None

MAINTENANCE ACTIVITY (CONT'D.)

SRVS

419. DESCRIPTION OF FAILURE, INCLUDING DETECTION METHOD: *Seal leakage detected from tailpipe temperature data. Leakage is not considered excessive. Extent of erosion/steam cutting will be determined upon disassembly.*

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. 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 (MINIMUM)
 - 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 SEAL TIGHTNESS
 - H. MAIN STAGE SEAL TIGHTNESS
 - I. FLANGED CONNECTION GASKET LEAKAGE OTHER

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")

☐ (711) GROSSBY VALVE & GAGE CO.
☐ (B167) BURGERS
☐ (B743) BURGERS VALVE
☐ (G082) GENERAL ELECTRIC CORP.
☐ (0999) GROSSBY VALVE (NOT BURGERS CODE)
☐ (T020) TARGET LOCK CORP.
☐ (W336) WYLE 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. UNOBSERVED DAMAGE/FAILURE	456. CAUSE OF FAILURE / DAMAGE RESULTING FROM FAILURE (IF FAILURE HAS OCCURRED)
A.	A.
B.	B.
C.	C.
D.	D.
E.	E.
F.	F.
G.	G.
H.	H.
I.	I.
J.	J.
K.	K.
L.	L.
M.	M.
N.	N.
O.	O.
P.	P.
Q.	Q.
R.	R.
S.	S.
T.	T.
U.	U.
V.	V.
W.	W.
X.	X.
Y.	Y.
Z.	Z.

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

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

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

☐ A. ACTUATOR STAGES REPLACED
☐ B. SPRINGS REPLACED WITH ONE OF SAME SETPOINT
☐ C. RELAP SEAT, DISC
☐ D. MACHINE PILOT VALVE DISC
☐ E. CLEAN & REPAIR PILOT ASSEMBLIES
☐ F. SETPOINT ADJUSTMENT
☐ G. VALVE INDOOR GAGE SIZE INCREASED
☐ H. SOLENOID ASSEMBLY REMOVED, REINSTALLED
☐ I. REPAIR/REPLACE STEAM INDOOR UNIT FILE
☐ J. REPLACE PISTON RINGS
☐ K. REPLACE DIAPHRAGM
☐ L. REPLACE/REPAIR BELLOWS
☐ M. REPLACE/REPAIR CASNETS
☐ N. REPLACE/REPAIR SPRINGS
☐ O. OTHER (EXPLAIN IN NARRATIVE)

MAINTENANCE ACTIVITY (CONT'D.)

SRVS

DATE TESTED AFTER REASSEMBLY (MM/DD/YY)

4/U. DETAILS OF MAINTENANCE/REFURBISHING NARRATIVE:

4/U. DATE TESTED AFTER REASSEMBLY (MM/DD/YY)

4/U. TEST REPORT NUMBERS FOR POST REASSEMBLY DESIGN TESTS:

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

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

4/U. DATE REINSTALLED IN SERVICE (MM/DD/YY)

4/U. COMPONENT ID NUMBER VALVE REINSTALLED (OR "N" IF STORED OR "Q" IF DISPOSED)

CODES

434. 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

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. RELEASE - RELEASE PRESSURE
- C. VALVE OPENING DELAY TIME
- D. VALVE OPENING DELAY TIME
- E. AUTOMATIC MODE
- F. MAIN DISC OPENING STROKE TIME
- G. MAIN DISC OPENING STROKE TIME
- H. AUTOMATIC MODE
- I. PILOT STAGE SEAT TIMING
- J. MAIN STAGE SEAT TIMING
- K. PLANNED CONNECTION GASKET LEAKAGE
- L. OTHER

Prepared by: *[Signature]* 1138
Approved by: *[Signature]*

MAINTENANCE ACTIVITY

Q80. PLANT LOCKET #40 - 458

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

Q01. S/R VALVE SERIAL NUMBER 1263800-00-0117 Q02. PLANT'S COMMENT TO MAINT. (UN "S" IF FROM STORAGE) 16214 RUF0 51D

Q03. TYPE OF MAINTENANCE CODE

- A. ☐ SCHEDULED/ROUTINE MAINTENANCE - NO FAILURE RECEIVING
- B. ☒ MAINTENANCE HAS OCCURRED SINCE LAST MAINTENANCE PERIOD
- C. ☐ AFTER A NON-CATASTROPHIC FAILURE OCCURRED
- D. ☐ AFTER A MAJOR/IMMEDIATE MAINTENANCE - A FAILURE OCCURRED THAT REQUIRED IMMEDIATE MAINTENANCE OR PERFORMED
- E. ☐ VALVE RELAXATION REPORT ONLY - VALVE INSTALLED WITH NO MAINTENANCE PERFORMED.

Q04. 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 A01 AND Q30 MUST MATCH THOSE ON REPORT TO BE APPROVED.

NOTE: IF MAINTENANCE IS ASSOCIATED WITH ANY FAILURE, COMPLETE ITEMS Q10 THROUGH Q15. IF NO FAILURE HAS OCCURRED, CONTINUE FROM ITEM Q16.

Q10. DATE OF FAILURE (MM/DD/YY) 12/3/94

Q11. AUTOMATIC PRESSURE SWITCH OPERABLE?

☒ YES OR ☐ NO

Q12. ELECTRIC POWER SUPPLY AVAILABLE?

☒ YES OR ☐ NO

Q13. VOLTAGE OF ELECTRIC POWER SUPPLY 125 VDC

Q15. MODE(S) OF FAILURE DETECTION (CHECK AS MANY AS APPLICABLE)

- A. ☒ TAILPIPE THERMOCOUPLE READING HIGH
- B. ☐ TAILPIPE PRESSURE SWITCH
- C. ☐ TAILPIPE PRESSURE SWITCH
- D. ☐ TAILPIPE PRESSURE SWITCH
- E. ☐ TAILPIPE PRESSURE SWITCH
- F. ☐ TAILPIPE PRESSURE SWITCH
- G. ☐ TAILPIPE PRESSURE SWITCH
- H. ☐ TAILPIPE PRESSURE SWITCH
- I. ☐ TAILPIPE PRESSURE SWITCH
- J. ☐ TAILPIPE PRESSURE SWITCH
- K. ☐ TAILPIPE PRESSURE SWITCH
- L. ☐ TAILPIPE PRESSURE SWITCH
- M. ☐ TAILPIPE PRESSURE SWITCH
- N. ☐ TAILPIPE PRESSURE SWITCH
- O. ☐ TAILPIPE PRESSURE SWITCH
- P. ☐ TAILPIPE PRESSURE SWITCH
- Q. ☐ TAILPIPE PRESSURE SWITCH
- R. ☐ TAILPIPE PRESSURE SWITCH
- S. ☐ TAILPIPE PRESSURE SWITCH
- T. ☐ TAILPIPE PRESSURE SWITCH
- U. ☐ TAILPIPE PRESSURE SWITCH
- V. ☐ TAILPIPE PRESSURE SWITCH
- W. ☐ TAILPIPE PRESSURE SWITCH
- X. ☐ TAILPIPE PRESSURE SWITCH
- Y. ☐ TAILPIPE PRESSURE SWITCH
- Z. ☐ TAILPIPE PRESSURE SWITCH

Q14. TYPE FAILURE (CHECK AS MANY AS APPLICABLE)

- A. ☐ LIFTED PREMATURELY
- B. ☐ LIFTED BEYOND SETPOINT
- C. ☐ LIFTED PAST SETPOINT
- D. ☐ FAILED TO LIFT
- E. ☐ FAILED TO BE CLOSE
- F. ☐ FAILED TO BE OPEN
- G. ☐ LEAKAGE (OTHER THAN MINOR)
- H. ☐ INVERTED OPENING OF S/R VALVE
- I. ☒ OTHER (EXPLAIN IN ITEM Q19)

Q16. EFFECT OF FAILURE ON PLANT (CHECK ONE ONLY)

- A. ☐ PLANT IN NORMAL OPERATION
- B. ☐ PLANT IN NORMAL OPERATION
- C. ☐ PLANT IN NORMAL OPERATION
- D. ☐ PLANT IN NORMAL OPERATION
- E. ☐ PLANT IN NORMAL OPERATION
- F. ☐ PLANT IN NORMAL OPERATION
- G. ☐ PLANT IN NORMAL OPERATION
- H. ☐ PLANT IN NORMAL OPERATION
- I. ☐ PLANT IN NORMAL OPERATION
- J. ☐ PLANT IN NORMAL OPERATION
- K. ☐ PLANT IN NORMAL OPERATION
- L. ☐ PLANT IN NORMAL OPERATION
- M. ☐ PLANT IN NORMAL OPERATION
- N. ☐ PLANT IN NORMAL OPERATION
- O. ☐ PLANT IN NORMAL OPERATION
- P. ☐ PLANT IN NORMAL OPERATION
- Q. ☐ PLANT IN NORMAL OPERATION
- R. ☐ PLANT IN NORMAL OPERATION
- S. ☐ PLANT IN NORMAL OPERATION
- T. ☐ PLANT IN NORMAL OPERATION
- U. ☐ PLANT IN NORMAL OPERATION
- V. ☐ PLANT IN NORMAL OPERATION
- W. ☐ PLANT IN NORMAL OPERATION
- X. ☐ PLANT IN NORMAL OPERATION
- Y. ☐ PLANT IN NORMAL OPERATION
- Z. ☐ PLANT IN NORMAL OPERATION

Q17. TEMP. OF ENVIRONMENT AROUND S/R VALVE (IF AVAILABLE) 135°F

Q18. WERE THERE ANY ATTACHMENTS (LIFT, POSITION INDICATOR, ETC.) ATTACHED TO S/R VALVE NOT DEPICTED ON ORIGINAL "AS FURNISHED" VALVE? IF SO, SPECIFY WHAT AND WHEN ATTACHED. REFERENCE IS TO VERIFY COMPATIBILITY WITH VALVE PERFORMANCE.

[Signature]

PLANT DESIGN # 30-458

S/N VALVE SERIAL NUMBER A63800-20-0117

MAINTENANCE ACTIVITY (CONT'D.)

SRVS

419. DESCRIPTION OF FAILURE, INCLUDING DETECTION METHOD: *Seat leakage detected from tailpipe temperature data. Leakage is not considered excessive. Extent of erosion/strain cutting to be determined upon disassembly.*

430. DATE REMOVED FROM SERVICE (MO/DAY/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"

434. TYPE TEST CODE:

- A. SET POINT TEST STEAM
- B. SET POINT TEST H₂ (MINIMUM)
- C. OPERATIONAL RELIEF TEST STEAM
- D. OPERATIONAL RELIEF TEST H₂
- E. LEAK TEST STEAM
- F. LEAK TEST H₂
- 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 RECLOSE PRESSURE
- C. VALVE OPENING DELAY TIME
- D. VALVE OPENING DELAY TIME
- E. AUTOMATIC MODE
- F. MAIN DISC OPENING STROKE TIME
- G. MAIN DISC OPENING STROKE TIME
- H. PILOT STAGE SEAL TIGHTNESS
- I. MAIN STAGE SEAL TIGHTNESS
- J. FLANGED CONNECTION GASKET LEAKAGE
- K. OTHER _____

451. MAINTENANCE/REPAIR/SHIMS PERFORMED UNDER ? (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/REPAIR/SHIMS PERFORMED BY WHOM? (CHECK ONE)

A. ☐ OPERATIONS

B. ☐ MAINTENANCE

C. ☐ CONTRACTOR, I.B. OR VENDOR

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

C711 ☐

B16 ☐

B243 ☐

CMB2 ☐

0999 ☐

1020 ☐

M336 ☐

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, NO HIT 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, NO HIT ANSWER 456 IF NO FAILURE HAS OCCURRED.

456. OBSERVED DAMAGE/CAUSE OF FAILURE (CHECK AS MANY AS APPLICABLE IN EACH COLUMN) ANSWER BOTH 455 AND 456. IF A FAILURE HAS OCCURRED, NO HIT 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, NO HIT ANSWER 456 IF NO FAILURE HAS OCCURRED.

456. OBSERVED DAMAGE/CAUSE OF FAILURE (CHECK AS MANY AS APPLICABLE IN EACH COLUMN) ANSWER BOTH 455 AND 456. IF A FAILURE HAS OCCURRED, NO HIT ANSWER 456 IF NO FAILURE HAS OCCURRED.

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

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

A-8

MAINTENANCE ACTIVITY (CONT'D.)

SHVS

PAGE # 108

4/U. DETAILS OF MAINTENANCE/REFURBISHING NARRATIVE:

COMES

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

401. TEST REPORT NUMBERS FOR POST REASSEMBLY DESIGN TESTS:

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

404. TEST TYPE CODE (SELECT ONE PER LINE)

405. PARAMETER MEASURED (CODE (SELECT ONE PER LINE))

406. NUMERICAL RESULTS ON TEST (INCLUDE UNITS (OR GIVE LEAKAGE RATE OR "NO LEAK" FOR LEAKAGE TESTS))

407. RESULTS OF TEST (ACCEPTABLE? "YES" OR "NO")

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

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

409. COMPONENT ID NUMBER VALVE BE INSTALLED (OR "S" IF STORED OR "D" IF DISPOSED)

404. 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

405. 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. SEAT - RELIEF PRESSURE
C. VALVE OPENING DELAY TIME
D. VALVE OPENING DELAY TIME
E. MAIN DISC OPENING SINKING TIME
F. MAIN DISC OPENING SINKING TIME
G. MAIN DISC OPENING SINKING TIME
H. MAIN DISC OPENING SINKING TIME
I. MAIN DISC OPENING SINKING TIME
J. MAIN DISC OPENING SINKING TIME
K. MAIN DISC OPENING SINKING TIME
L. MAIN DISC OPENING SINKING TIME
M. MAIN DISC OPENING SINKING TIME
N. MAIN DISC OPENING SINKING TIME
O. MAIN DISC OPENING SINKING TIME
P. MAIN DISC OPENING SINKING TIME
Q. MAIN DISC OPENING SINKING TIME
R. MAIN DISC OPENING SINKING TIME
S. MAIN DISC OPENING SINKING TIME
T. MAIN DISC OPENING SINKING TIME
U. MAIN DISC OPENING SINKING TIME
V. MAIN DISC OPENING SINKING TIME
W. MAIN DISC OPENING SINKING TIME
X. OTHER

SHV5284 Approved by: *[Signature]* 1138

MAINTENANCE ACTIVITY

Q401. PLANT'S COMMENTS TO PLANT TO MAINT. (FOR "S" IF FROM STORAGE)

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

Q402. S/R VALVE SERIAL NUMBER 165800-00-0036

Q403. TYPE OF MAINTENANCE CODE

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

Q404. TYPE REPORT

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

NOTE: FOR C. AND D., ITEMS Q401 AND Q402 MUST MATCH THOSE ON REPORT TO BE APPROVED.

NOTE: IF MAINTENANCE IS ASSOCIATED WITH ANY FAILURE, COMPLETE ITEMS Q40 THROUGH Q410. IF NO FAILURE HAS OCCURRED, CONTINUE FROM ITEM Q411.

Q410. DATE OF FAILURE (Mo/Day/Yr) None

Q411. AUTOMATIC PRESSURE SWITCH OPERABLE?

☐ YES OR ☐ NO

Q412. ELECTRIC PUMP SUPPLY AVAILABLE?

☐ YES OR ☐ NO

Q413. VOLTAGE OF ELECTRIC PUMP SUPPLY

Q415. NAME(S) OF FAILURE DETECTION (CHECK AS MANY AS APPLICABLE)

Q416. EFFECT OF FAILURE ON PLANT (USE CHECK ONE ONLY)

Q419. 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 BE CLOSE
- F. ☐ FAILED TO FULLY BE SEAT
- G. ☐ LEAKAGE (OTHER THAN MINOR)
- H. ☐ INVERTED OPENING OF S/R VALVE
- X. ☐ OTHER (EXPLAIN IN ITEM Q419)

- A. ☐ TAILPIPE THERMOCOUPLE READING HIGH
- B. ☐ ALARM INDICATOR - TAILPIPE PRESSURE SWITCH
- C. ☐ PANEL INDICATOR LIGHTS
- D. ☐ BEEP IN ELECTRICAL OUTPUT
- E. ☐ STEAM FEED FLOW METER
- F. ☐ INDICATOR IN STEAM LOW ALARM STEAM LINES
- G. ☐ RISE IN SUPPRESSION POOL TEMPERATURE
- H. ☐ RISE IN SUPPRESSION POOL LEVEL
- I. ☐ SILENT TRANSIENT BEEP IN VESSEL LEVEL
- J. ☐ RADIATION MONITOR(S)
- K. ☐ ACOUSTIC MONITOR(S)
- L. ☐ DIRECT MONITOR SAW POSITION INDICATOR
- M. ☐ INDIRECT MONITOR SAW POSITION INDICATOR
- N. ☐ OTHER (EXPLAIN IN ITEM Q419)

- A. ☐ PUMP BEHIND TRIP
- B. ☐ MANUAL SCRAM
- C. ☐ AUTOMATIC SCRAM
- D. ☐ EXTENSION OF PRE EXISTING SCRAM
- E. ☐ MANUAL SCRAMMING
- F. ☐ NO SIGNIFICANT EFFECT

Q417. TEMP. OF ENVIRONMENT AROUND S/R VALVE (IF AVAILABLE)

Q418. WHEN 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 IS TO VERIFY COMPATIBILITY WITH VALVE PERFORMANCE.

None

SAVS

MAINTENANCE ACTIVITY (CONT'D.)

PAGE 2 OF 4

PLANT PURCH # 50-458

S/N VALVE SERIAL NUMBER 1673820-00-0036

419. DESCRIPTION OF FAILURE, INCLUDING DETECTION METHOD:

None

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

N/A

"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. _____

434. TYPE TEST CODE:

- A. SET POINT TEST STEAM
- B. SET POINT TEST M₂ (MINIMUM)
- C. OPERATIONAL RELIEF TEST STEAM
- D. OPERATIONAL RELIEF TEST M₂
- E. LEAK TEST STEAM
- F. LEAK TEST M₂
- 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 LEAK PRESSURE
- B. RESEAT RECLOSURE PRESSURE
- C. VALVE OPENING DELAY TIME
- D. VALVE OPENING DELAY TIME
- E. MAIN DISC OPENING STROKE TIME
- F. MAIN DISC OPENING STROKE TIME
- G. PILOT STAGE SEAT TIGHTNESS
- H. MAIN STAGE SEAT TIGHTNESS
- I. FLANGED CONNECTION GASDET LEAKAGE
- J. OTHER _____

SRVS

Prepared by: *Antball 1138*
Approved by: *S. Burch*

MAINTENANCE ACTIVITY (CONT'D.)

PLANT (CREDIT #50 - 458)

PAGE 3 OF 4

S/H VALVE SERIAL NUMBER *1163800-00-0036*

451. MAINTENANCE / REPAIRING
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 / REPAIRING
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")

- (711) ☐ BUSBY VALVE & GAGE (U.)
- (B16) ☐ PRESSURE
- (B17) ☐ PRESSURE VALVE
- (G082) ☐ GENERAL ELECTRIC (IMP)
- (0999) ☐ ORCAD VALVE (AND HUBS) (U.M.)
- (1070) ☐ TARGET BOX CORP.
- (W336) ☐ WYLE LABS
- OTHER: _____

454. MAINTENANCE / REPAIRING
PERFORMED (SELECT AS MANY AS APPLICABLE)

- A. ☐ ACTUATION STAGES REPLACED
- B. ☒ JOINTS REPLACED WITH ONE OF SAME SETPOINT
- C. ☐ RELAP SEAT, DISC
- D. ☐ MACHINE PILOT VALVE DISC
- E. ☐ CLEAR & REMOVED PILOT ASSEMBLIES
- F. ☐ SETPOINT ADJUSTMENT
- G. ☐ VALVE TIGHTENING SIZE INCREASED
- H. ☐ SOLENOID ASSEMBLY REMOVED, REINSTALLED
- I. ☐ REPAIR STEAM IN DOWNSTREAM
- J. ☐ REPLACE PILOT RINGS
- K. ☐ REPLACE DIAPHRAGM(S)
- L. ☐ REPLACE / REPAIR BELLOWS
- M. ☐ REPLACE / REPAIR GASKET(S)
- N. ☐ REPLACE / REPAIR SPRING(S)
- OTHER (EXPLAIN IN 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.

455. OBSERVED DAMAGE / CAUSE OF FAILURE / 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. ☐

- 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. ☐

PILOT DISC SEAM LUT OR DAMAGED
PISTON RING LEAK, DAMAGED
DAMAGE TO SEAT(S)
FUNCTION MATERIAL (JUMP, LEAK) ON / UNDER SEAT
DAMAGE TO 2ND STAGE PISTON
SET POINT ERROR - NOT DAMAGE RELATED
DAMAGED SPRING(S)
LASTING DEFECTS
OTHER MANUFACTURING DEFECTS
IMPROPER ASSEMBLY OR INSTALLATION, MISSING PARTS
DAMAGED BY RINGS (S) (BEYOND NORMAL WEAR)
DIAPHRAGM(S) DAMAGED
GASKET(S) BEYOND NORMAL, EXPLAINED WEAR
BELLOWS DAMAGED, MOON
BROKEN AIR LINE
SOLENOID FAILURE
FAILURE OF AIR OPERATION ASSEMBLY
OTHER (EXPLAIN IN NARRATIVE)
NO DAMAGE EXCEPT THAT DIRECTLY RELATING TO FAILURE

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

None

MAINTENANCE ACTIVITY (CONT'D.)

SHVS

470. DETAILS OF MAINTENANCE/REFURBISHING NARRATIVE: 1) Actuator assembly was refurbished on 1/10/94

2) str. set pressure test was performed at 135°F - sat

3) str. seat leakage test was performed at 90% - sat
valve shipped / w/ settings - 8 and -400

480. DATE TESTED AFTER REASSEMBLY (MM/DD/YY) 1/10/94

481. TEST REPORT NUMBERS FOR POST REASSEMBLY DEMO TESTS: NONE

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

484. TEST TYPE CODE (SELECT ONE PER LINE)	485. PARAMETER MEASURED CODE (SELECT ONE PER LINE)	486. NUMERICAL RESULTS OR TEST INCLUDE UNITS (OR GIVE LEAKAGE RATE OR RATE "NO LEAK" FOR LEAKAGE TESTS)	487. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"
1. A	A	165-20%	YES
2. E	H	2-10m/3/5min	YES
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____

489. DATE RE-INSTALLED IN SERVICE (MM/DD/YY) 7/6/94

491. COMMENTS ID NUMBER VALVE RE-INSTALLED (UN "S" IF STORED OR "D" IF DISPOSED)

1B21*RUFO41D

CODES

484. 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
- 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 - RELEASE PRESSURE
- C. VALVE OPENING DELAY TIME
- D. VALVE OPENING DELAY TIME
- E. AUTOMATIC MODE
- F. MAIN DISC OPENING STROKE TIME
- G. MAIN DISC OPENING STROKE TIME
- H. PLOD STAGE SEAT TIGHTNESS
- I. MAIN STAGE SEAT TIGHTNESS
- X. OTHER

Prepared by: *[Signature]* 1138
 Approved by: *[Signature]*

MAINTENANCE ACTIVITY

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

401. S/R VALVE SERIAL NUMBER N63800-00-0042

402. PLANT'S COMMENT TO PRIOR TO MAINT. (ON "S" IF FROM STORAGE) S

403. TYPE OF MAINTENANCE CODE

- A. ☒ SCHEDULED/ROUTINE MAINTENANCE. NO FAILURE REQUIRING MAINTENANCE HAS OCCURRED SINCE LAST MAINTENANCE PERIOD.
- B. ☐ MINOR 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 REQUIRED.

404. TYPE REPORT

- A. ☒ COMPLETE
- B. ☐ INCOMPLETE MAINTENANCE/DETAILS LATER
- C. ☐ ADDITIONS TO PREVIOUSLY COMPLETED 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 418. IF NO FAILURE HAS OCCURRED, CONTINUE FROM ITEM 419.

410. DATE OF FAILURE (Mo/Da/Yr) —NONE—

411. AUTOMATIC PRESSURE SWITCH OPERABLE? ☐ YES ☐ NO

412. ELECTRIC PUMP SUPPLY AVAILABLE? ☐ YES ☐ NO

413. VOLTAGE OF ELECTRIC PUMP SUPPLY

414. TYPE FAILURE (CHECK AS MANY AS APPLICABLE)

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

- A. ☐ TAILPIPE INDICATOR - TAILPIPE PRESSURE SWITCH
- B. ☐ PANEL INDICATOR LIGHTS
- C. ☐ BEEP IN ELECTRICAL OUTPUT
- D. ☐ STEAM FLOW HIGH SWITCH
- E. ☐ INDICATOR IN STEAM FLOW AROUND STEAM LINES
- F. ☐ RISE IN SUPPRESSION POOL TEMPERATURE
- G. ☐ RISE IN SUPPRESSION POOL LEVEL
- H. ☐ SLIGHT TRANSIENT BUMP IN VESSEL LEVEL
- I. ☐ RADIATION MONITOR(S)
- J. ☐ ACOUSTIC MONITOR(S)
- K. ☐ DIRECT MONITOR SAW POSITION INDICATOR
- L. ☐ INDIRECT MONITOR SAW POSITION INDICATOR
- M. ☐ OTHER (EXPLAIN IN ITEM 419)

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

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

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

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

418. WHEN THERE ARE ATTACHMENTS (LVDT, POSITION INDICATOR, ETC...) ATTACHED TO S/R VALVE NOT REPICTED ON ORIGINAL "AS FURNISHED" VALVE, SPECIFY WHAT AND WHEN ATTACHED. REFERENCE TESTS PERFORMED TO VERIFY COMPATIBILITY WITH VALVE PERFORMANCE: —NONE—

MAINTENANCE ACTIVITY (CONT'D.)

SRVS

419. DESCRIPTION OF FAILURE, INCLUDING DETECTION MODE: None

420. DATE REMOVED FROM SERVICE (DD/DA/YR) N/A

"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. _____	_____	_____	_____

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
- 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
- D. VALVE OPENING DELAY TIME
- E. AUTOMATIC PURGE
- F. MAIN DISC OPENING STROKE TIME
- G. MAIN DISC OPENING STROKE TIME
- H. AUTOMATIC PURGE
- I. PILOT STAGE SEAT TIGHTNESS
- J. MAIN STAGE SEAT TIGHTNESS
- K. FLANGED CONNECTION GASKET LEAKAGE
- L. OTHER _____

SRVS
Prepared by: *Handwritten signature* 1138
Approved by: *Handwritten signature*

MAINTENANCE ACTIVITY (CONT'D.)

PLANT PROJECT #50 - 458
S/N VALVE SERIAL NUMBER 1163800-00-0042

451. MAINTENANCE/REFURBISHING PERFORMED BY (CHECK ONE)
A. ☐ IN SITU (VALVE REMAINS IN PLACE)
B. ☐ ON SITE (VALVE IS REMOVED FROM INSTANT LOCATION BY MEMBERS OF PLANT SITE)
C. ☒ OFF SITE

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

453. CONTRACTOR, LAB, OR VENDOR (CHECK ONE ONLY IF ITEM 452 IS "C")
(711) ☒ (HOSBY VALVE & GAGE CO.)
(167) ☐ BERNERS
(243) ☐ BERNERS VALVE
(282) ☐ GENERAL ELECTRIC (IMP)
(999) ☐ ORANS VALVE (NOT IMPROUS CODE)
(1020) ☐ TARGET ROCK CORP.
(1335) ☐ WYLE LABS
OTHER: _____

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

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

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

— none —

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

ACTUATION STAGES DEPICTED
FORWARDERS REPLACED WITH ONE OF SAME SETPOINT
RELAP SEAT, DISC
REPLACE PILOT VALVE DISC
CLEAN & REMOVAL PILOT ASSEMBLY'S
SETPOINT ADJUSTMENT
VALVE TIGHTEN SAME SIZE IMCREASED
SOLENOID ASSEMBLY REMOVED, REINSTALLED
REPLACE STEAM IN CONTROL UNIT
REPLACE PISTON RING(S)
REPLACE DISC RING(S)
REPLACE DIAPHRAGM(S)
REPLACE/REPAIR BELLOWS
REPLACE/REPAIR GASKET(S)
REPLACE/REPAIR SPRING(S)
OTHER (EXPLAIN IN NARRATIVE)

4/10. DETAILS OF MAINTENANCE/REFURBISHING NARRATIVE: 1) Actuator was refurbished on 12/13/93 2) Stem - set pressure test at 135°F - sat 3) stem seat leakage test - unsat (> 400 mls/5 min) 4) stem seat pressure test at 135°F - sat 5) stem seat leakage test - sat at 900°F after body to bonnet joint reworked. 6) valve shipped ring settings - 8 and 400

COMES

4/10. DATE TESTED AFTER REASSEMBLY (MO/DA/YR) 12/14/93 thru 1/5/94

4/11. TEST REPORT NUMBERS FOR POST REASSEMBLY BENCH TESTS: none

4/12. TEST TYPE (CODE) 1. A 2. E 3. A 4. E

4/13. TEST TYPE (CODE) 1. A 2. E 3. A 4. E

4/14. TEST TYPE (CODE) 1. A 2. E 3. A 4. E

4/15. TEST TYPE (CODE) 1. A 2. E 3. A 4. E

4/16. DATE REINSTALLED IN SERVICE (MO/DA/YR) 7/6/94

4/17. COMMENTS RE VALVE BEING REINSTALLED (FOR "S" IF STORED OR "D" IF DISPOSED) 1821 X RVFO47B

4/18. 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

4/19. 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. AUTOMATIC MODE
- F. MAIN DISC OPENING: STROKE TIME
- G. MAIN DISC OPENING: STROKE TIME
- H. PILOT STAGE SEAT TIGHTNESS
- I. MAIN STAGE SEAT TIGHTNESS
- J. PLANNED CONNECTION GASKET LEAKAGE
- K. OTHER

SHVS *Approved by: [Signature] 1138*
Approved by: [Signature]

MAINTENANCE ACTIVITY

Q401. PLANT IDENTIFY NO. - 458

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

Q402. S/R VALVE SERIAL NUMBER AK3800-00-0118

Q403. PLANT'S COMMENTS TO PRIOR TO MAINT. (OR "S" IF FROM STORAGE) S

Q404. TYPE OF MAINTENANCE CODE

- A. ☒ SCHEDULED/ROUTINE MAINTENANCE - NO FAILURE BECOMING 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 TO BE PERFORMED
- E. ☐ VALVE RELOCATION REPORT ONLY - VALVE INSTALLED WITH NO MAINTENANCE PERFORMED.

Q405. 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 Q401 AND Q402 MUST MATCH THOSE ON REPORT TO BE APPROVED.

NOTE: IF MAINTENANCE IS ASSOCIATED WITH ANY FAILURE, COMPLETE ITEMS Q10 THROUGH Q15. IF NO FAILURE HAS OCCURRED, (CONTINUE FROM ITEM Q16).

Q10. DATE OF FAILURE (MM/DD/YY) None

Q11. AUTOMATIC PRESSURE SWITCH OPERABLE? ☐ YES OR ☐ NO

Q12. ELECTRIC POWER SUPPLY AVAILABLE? ☐ YES OR ☐ NO

Q13. VOLTAGE OF ELECTRIC POWER SUPPLY _____

Q14. NAME(S) OF FAILURE DETECTION (CHECK AS MANY AS APPLICABLE)

Q15. EFFECT OF FAILURE ON PLANT (UIN) (CHECK ONE ONLY)

Q16. 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 Q19)

- A. ☐ TAILPIPE THERMOCOUPLE READING HIGH
- B. ☐ MANOMETER - TAILPIPE PRESSURE SWITCH
- C. ☐ PANEL INDICATOR LIGHTS
- D. ☐ BUMP IN ELECTRICAL OUTPUT
- E. ☐ STEAM FLOW MISMATCH
- F. ☐ INDICATOR IN STEAM FLOW AMONG STEAM LINES
- G. ☐ RISE IN SUPPRESSION POOL TEMPERATURE
- H. ☐ RISE IN SUPPRESSION POOL LEVEL
- I. ☐ SLIGHT TRANSIENT BUMP IN VESSEL LEVEL
- J. ☐ RADIATION MONITOR(S)
- K. ☐ ACOUSTIC MONITOR(S)
- L. ☐ DIRECT MONITOR SAW POSITION INDICATOR
- M. ☐ INDIRECT MONITOR SAW POSITION INDICATOR
- N. ☐ OTHER (EXPLAIN IN ITEM Q19)

Q17. 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: IT IS PERFORMED TO VERIFY COMPATIBILITY WITH VALVE PERFORMANCE.

None

Q18. TEMP. OF ENVIRONMENT AROUND S/R VALVE (IF AVAILABLE) _____

MAINTENANCE ACTIVITY (CONT'D.)

SRVS

419. INSCRIPTION OF FAILURE, INCLUDING DETECTION PHASE: None

430. DATE REMOVED FROM SERVICE (MO/DA/YR) 04/8

"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 LIMITS 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. _____	_____	_____	_____

439. 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
- 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
- B. RESET
- C. VALVE OPENING DELAY TIME
- D. VALVE OPENING DELAY TIME
- E. AUTOMATIC MODE
- F. MAIN DISC OPENING STROKE TIME
- G. MAIN DISC OPENING STROKE TIME
- H. PILOT STAGE SEAT TIGHTNESS
- I. MAIN STAGE SEAT TIGHTNESS
- J. FLANGED CONNECTION GASKET LEAKAGE
- X. OTHER _____

SRVS

Prepared by: *W. J. Hall 1138*
 Approved by: *W. J. Hall*

MAINTENANCE ACTIVITY (CONT'D.)

PAGE 3 OF 4

PLANT IDENT #50 - 458

S/N VALVE SERIAL NUMBER *113880-20-0118*

451. MAINTENANCE/REFURBISHING
 PERFORMED BY (CHECK ONE)

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

452. MAINTENANCE/REFURBISHING
 PERFORMED BY (CHECK ONE)

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

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

- (711) ☒ (ROSHY VALVE & GAGE (C)
 (B167) ☐ DIAPHRAGM
 (B243) ☐ PRESSUR VALVE
 (C002) ☐ GENERAL ELECTRIC COMP.
 (P999) ☐ DIAPHRAGM VALVE (NOT REPAIRS (CODE)
 (T020) ☐ TARGET BOX COMP.
 (M336) ☐ WYLE LABS
 OTHER: _____

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

- A. ☐ ACTUATOR STAGES REPLACED
 B. ☐ TOPGUNS REPLACED WITH ONE OF SAME SETPOINT
 C. ☐ RELAP SEAT, BICC
 D. ☐ MACHINE PILOT VALVE DISC
 E. ☐ CLEAN & REPAIR PILOT ASSEMBLY'S
 F. ☐ SETPOINT ADJUSTMENT
 G. ☐ VALVE IMMOBILIZER SIZE INCREASED
 H. ☐ SOLENOID ASSEMBLY REMOVED, REINSTALLED
 I. ☐ REPAIR/REPLACE STEAM IN OPERATOR UNITS
 J. ☐ REPAIR/REPLACE PISTON RINGS(S)
 K. ☐ REPAIR/REPLACE DIAPHRAGM(S)
 L. ☐ REPAIR/REPLACE BELLOWS
 M. ☐ REPAIR/REPLACE GASKET(S)
 N. ☐ REPAIR/REPLACE SPRING(S)
 O. ☐ 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 WAS OCCURRED. DO NOT ANSWER 456 IF
 NO FAILURE HAS OCCURRED.

455. OBSERVED
 DAMAGE
 INDICATED TO
 ANY FAILURE

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.	

456. 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.	

PILOT DISL STEAM LUT OR DAMAGED
 PISTON RINGS WHEN, DAMAGED
 DAMAGE TO SEAT(S)
 UNIFORM MATERIAL (LOOSE, CRACK) ON/UNDER SEAT
 DAMAGE TO 2ND STAGE PISTON
 SET POINT UNIT - BUT DAMAGE RELATED
 DAMAGED SPRING(S)
 LASTING EFFECTS
 OTHER MANUFACTURING DEFECTS
 IMPROPER ASSEMBLY OR INSTALLATION, MISSING PARTS
 NORMAL WEAR
 DAMAGED (S) RING(S) (BEYOND NORMAL WEAR)
 DIAPHRAGM(S) DAMAGED
 GASKET(S) MORE BEYOND NORMAL, EXPLAINED MEAN
 BELLOWS DAMAGED, WHEN
 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:

None

MAINTENANCE ACTIVITY (CONT'D.)

SHVS

410. DETAILS OF MAINTENANCE/REFURBISHING NARRATIVE: 1) Activator refurbished 1/17/94 2) steam set pressure test performed at 135°F - sat 3) atm set leakage test at 90% - failed 4) body to bonnet joint reworked 5) atm set pressure test sat 6) seat leakage at 90% sat 7) valve shipped ring settings - 8 and -400
NOTE: Blowdown testing performed due to set pressure adjustment from 1180 to 1190 PSIG.

484. DATE TESTED AFTER REASSEMBLY (MO/DY/YR) 1-21-94
481. TEST REPORT NUMBERS FOR POST REASSEMBLY BENCH TESTS: NONE

486. TEST RESULTS (ONLY THOSE WHICH MEASURE PERTINENT PARAMETERS SUCH AS SET POINT, SEAT PRESSURE, ETC.)

484. TEST TYPE LOW (SELECT ONE PER LINE)	485. PARAMETER MEASURED (CODE (SELECT ONE PER LINE))	486. NUMERICAL RESULTS OR TEST INCLUDE UNITS (OR GIVE LEAKAGE RATE OR "NO LEAK" FOR LEAKAGE TESTS)	487. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"
1. A	A	1180 ± 2%	Yes
2. E	H	7115 mts/5min	No
3. C	X	4.4% - 7.3%	Yes
4. C	X	293 - 438 PSIG	Yes
5. A	A	1180 ± 2%	Yes
6. E	H	1ML/5MIN	Yes
7. _____	_____	_____	_____
8. _____	_____	_____	_____

488. DATE RE-INSTALLED IN SERVICE (MO/DY/YR) 7/6/94
491. COMMENTS TO WHOM VALVE BEING INSTALLED (USE "S" IF STORED OR "D" IF DISPOSED)
1521 KR/F0515

CODES

484. 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
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: CRACKING PRESSURE
C. VALVE OPENING: DELAY TIME
D. VALVE OPENING: DELAY TIME
E. AUTOMATIC PUMP
F. MAIN DISC OPENING: STROKE TIME
G. MAIN DISC OPENING: STROKE TIME
H. PUMP STAGE SEAT TIGHTNESS
I. MAIN STAGE SEAT TIGHTNESS
J. PLANNED TURNING GASKET LEAKAGE
K. OTHER

97. Blodgett
Dynamic Back Pressure

Reviewed by: *Stefan* 1138
SRV5 *By* Approved by: *Stefan*

MAINTENANCE ACTIVITY

Q001. PLANT DCKET #40 -458

PAGE 1 OF 4

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

401. S/R VALVE SERIAL NUMBER NES820-00-0117

402. PLANT'S COMMENT TO PLANT TO MAINT. (FOR "S" IF FROM STORAGE)

5

403. TYPE OF MAINTENANCE CODE

- A. ☒ SCHEDULED/ROUTINE MAINTENANCE. NO FAILURE REQUIRING MAINTENANCE WAS INCURRED 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 INCURRED THAT REQUIRED IMMEDIATE MAINTENANCE BE PERFORMED
E. ☐ VALVE MALFUNCTION 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 ONWARD. IF NO FAILURE HAS OCCURRED, CONTINUE FROM ITEM 411.

410. DATE OF FAILURE (Mo/Da/Yr) None

411. AUTOMATIC PRESSURE SWITCH OPERABLE?

☐ YES OR ☐ NO

412. ELECTRIC PUMP SUPPLY AVAILABLE?

☐ YES OR ☐ NO

413. VOLTAGE OF ELECTRIC POWER SUPPLY

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

414. TYPE FAILURE (CHECK AS MANY AS APPLICABLE)

- A. ☐ LIFTED PREMATURELY
B. ☐ LIFTED BEYOND SETPOINT
C. ☐ LIFTED PAST SETPOINT
D. ☐ FAILED TO LIFT
E. ☐ FAILED TO BE CLOSED
F. ☐ LEAKAGE (OTHER THAN HIGH) INADVERTENT OPENING OF S/R VALVE
G. ☐ OTHER (EXPLAIN IN ITEM 419)

- A. ☐ TAILPIPE THERMOCOUPLE LEADING HIGH
B. ☐ TAILPIPE PRESSURE SWITCH
C. ☐ TAILPIPE PRESSURE SWITCH
D. ☐ TAILPIPE PRESSURE SWITCH
E. ☐ TAILPIPE PRESSURE SWITCH
F. ☐ TAILPIPE PRESSURE SWITCH
G. ☐ TAILPIPE PRESSURE SWITCH
H. ☐ TAILPIPE PRESSURE SWITCH
I. ☐ TAILPIPE PRESSURE SWITCH
J. ☐ TAILPIPE PRESSURE SWITCH
K. ☐ TAILPIPE PRESSURE SWITCH
L. ☐ TAILPIPE PRESSURE SWITCH
M. ☐ TAILPIPE PRESSURE SWITCH
N. ☐ TAILPIPE PRESSURE SWITCH
O. ☐ TAILPIPE PRESSURE SWITCH
P. ☐ TAILPIPE PRESSURE SWITCH
Q. ☐ TAILPIPE PRESSURE SWITCH
R. ☐ TAILPIPE PRESSURE SWITCH
S. ☐ TAILPIPE PRESSURE SWITCH
T. ☐ TAILPIPE PRESSURE SWITCH
U. ☐ TAILPIPE PRESSURE SWITCH
V. ☐ TAILPIPE PRESSURE SWITCH
W. ☐ TAILPIPE PRESSURE SWITCH
X. ☐ TAILPIPE PRESSURE SWITCH
Y. ☐ TAILPIPE PRESSURE SWITCH
Z. ☐ TAILPIPE PRESSURE SWITCH

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

- A. ☐ PLANT BEHIND
B. ☐ TAILPIPE TRIP
C. ☐ MANUAL SCRAM
D. ☐ AUTOMATIC SCRAM
E. ☐ EXTENSION OF PWR EXISTING
F. ☐ SIGNIFICANT
G. ☐ MANUAL SCRAM
H. ☐ NO SIGNIFICANT EFFECT

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

418. WERE THERE ANY ATTACHMENTS (LBS), POSITION INDICATOR, ETC., ATTACHED TO S/R VALVE NOT REPORTED ON ORIGINAL "AS FURNISHED" VALVE? IF SO, SPECIFY WHAT AND WHEN ATTACHED. REFERENCE IS TO VERIFICATION WITH VALVE PERFORMANCE.

None

MAINTENANCE ACTIVITY (CONT'D.)

SRVS

419. INSCRIPTION OF FAILURE, INCLUDING DETECTION MADE: None

430. DATE REMOVED FROM SERVICE (MO/DA/YR) None

"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. _____	_____	_____	_____

434. TYPE TEST CODE:
- A. SET POINT TEST
 - B. SET POINT TEST M₂ (MINIMUM)
 - C. OPERATIONAL RELIEF TEST
 - D. OPERATIONAL RELIEF TEST M₂
 - E. LEAK TEST
 - F. LEAK TEST M₂
 - 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
 - B. RESET
 - 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

MAINTENANCE ACTIVITY (CONT'D.)

Prepared by: *[Signature]* 1138
Approved by: *[Signature]*

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.

455. 456.

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. IN SITU (VALVE REMAINS IN PLACE)	
B. ON SITE (VALVE IS REMOVED FROM INSTALLATION BUT REMAINS ON PLANT SITE)	
C. OFF-SITE	
D. PISTON DISC STEAM CUT OR DAMAGED	
E. PISTON RINGS WORN, DAMAGED	
F. FOREIGN MATERIAL (LINT, LIME) ON/UNDER SEAT	
G. DAMAGE TO 2ND STAGE PISTON SET POINT BUILT - BUT DAMAGE RELATED	
H. DAMAGED SPRING(S)	
I. LASTING DEFECTS	
J. OTHER MANUFACTURING DEFECTS	
K. IMPROPER ASSEMBLY OR INSTALLATION, MISSING PARTS	
L. NORMAL WEAR	
M. DAMAGED O-RINGS (BEYOND NORMAL WEAR)	
N. DIAPHRAGM(S) DAMAGED	
O. GASKET(S) WORN BEYOND NORMAL, EXPELLER WEAR	
P. BELLOW(S) DAMAGED, HOLES	
Q. BROKEN AIR LINE	
R. SOLENOID FAILURE	
S. FAILURE OF AIR OPERATION ASSEMBLY	
T. OTHER (EXPLAIN IN NARRATIVE)	
U. NO DAMAGE EXCEPT THAT DIRECTLY RELATING TO FAILURE	

451. MAINTENANCE/REFURBISHING PERFORMED (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 (CHECK ONE)
A. ☐ OPERATIONS
B. ☐ MAINTENANCE CONTRACTOR, LAB.
C. ☐ OR VENDOR

453. CONTRACTOR, LAB. OR VENDOR (CHECK ONE ONLY IF ITEM 452 IS "C")
A. ☒ (MURPHY VALVE & GATE (U).
B. ☐ DISBERS
C. ☐ BRESER VALVE
D. ☐ GENERAL ELECTRIC (COMP.
E. ☐ GRAND VALVE (NOT REPAIRS (UML)
F. ☐ TARGET BOCK (COMP.
G. ☐ MYLE LABS
H. ☐ OTHER:

454. MAINTENANCE/REFURBISHING PERFORMED (SELECT AS MANY AS APPLICABLE)
A. ☐ ACTUATION STAGES REPLACED
B. ☐ O-RINGS REPLACED WITH ONE OF SAME SETPOINT
C. ☐ RELAP SEAT, DISC
D. ☐ MACHINE PILOT VALVE DISC
E. ☐ CLEAN & REWORK PILOT ASSEMBLY'S
F. ☐ SETPOINT ADJUSTMENT
G. ☐ VALVE TIGHTEN
H. ☐ SOLENOID ASSEMBLY SIZE INCREASED
I. ☐ REPAIR/REPLACE STEAM IN ORDNANCE UNIFILE
J. ☐ REPLACE PISTON RING(S)
K. ☐ REPLACE O-RINGS
L. ☐ REPLACE DIAPHRAGM(S)
M. ☐ REPLACE/REPAIR BELLOW(S)
N. ☐ REPLACE/REPAIR GASKET(S)
O. ☐ REPLACE/REPAIR SPRING(S)
P. ☐ OTHER (EXPLAIN IN NARRATIVE)

455. MAINTENANCE/REFURBISHING PERFORMED (SELECT AS MANY AS APPLICABLE)
A. ☐ ACTUATION STAGES REPLACED
B. ☐ O-RINGS REPLACED WITH ONE OF SAME SETPOINT
C. ☐ RELAP SEAT, DISC
D. ☐ MACHINE PILOT VALVE DISC
E. ☐ CLEAN & REWORK PILOT ASSEMBLY'S
F. ☐ SETPOINT ADJUSTMENT
G. ☐ VALVE TIGHTEN
H. ☐ SOLENOID ASSEMBLY SIZE INCREASED
I. ☐ REPAIR/REPLACE STEAM IN ORDNANCE UNIFILE
J. ☐ REPLACE PISTON RING(S)
K. ☐ REPLACE O-RINGS
L. ☐ REPLACE DIAPHRAGM(S)
M. ☐ REPLACE/REPAIR BELLOW(S)
N. ☐ REPLACE/REPAIR GASKET(S)
O. ☐ REPLACE/REPAIR SPRING(S)
P. ☐ OTHER (EXPLAIN IN NARRATIVE)

460. DETAILS OF OBSERVED DAMAGE/CAUSE OF FAILURE NARRATIVE:
None

N63800-00-0117

4/10. DETAILS OF MAINTENANCE/REFURBISHING NARRATIVE:

- 1) Actuator assembly was refurbished
- 2) stem set pressure test at 135°F was sat
- 3) stem seat leakage test unsat at 90°F (7-115 ml/s/5 min)
- 4) body to bonnet joint reworked
- 5) stem set pressure test - sat
- 6) seat leakage at 90°F sat (7-8 ml/s/5 min)
- 7) valve shipped ring settings - 8 and -430

NOTE: Blowdown testing performed due to set pressure adjustment from 1180 to 1190 psig.

480. DATE TESTED AFTER REASSEMBLY (MM/DD/YY) 1-22-94

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 DO TEST INCLUDE UNITS (OR GIVE LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS)	487. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"
1. A	A	1190 ± 5%	sat/yes
2. E	H	7-115 ml/s/5 min	No
3. C	X	6.0 to 10%	Yes
4. C	X	300-411 psig	Yes
5. A	A	1190 ± 5%	Yes
6. E	H	7-8 ml/s/5 min	Yes
7.			
8.			

489. DATE REINSTALLED IN SERVICE (MM/DD/YY) 7/6/94

491. COMMENTS TO WHOM THE VALVE REINSTALLED (OR "S" IF STORED OR "D" IF DISPOSED)

1821XRVF051D

CODES

484. 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
- 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 - RELIEF PRESSURE
- C. VALVE OPENING DELAY TIME
- D. MANUAL MODE
- E. VALVE OPENING DELAY TIME
- F. AUTOMATIC MODE
- G. MAIN DISC OPENING SURE TIME
- H. MAIN DISC OPENING SURE TIME
- I. AUTOMATIC MODE
- J. PILOT STAGE SEAT TIGHTNESS
- K. MAIN STAGE SEAT TIGHTNESS
- L. FLANGED CONNECTION GASKET LEAKAGE
- X. OTHER

To Blowdown

DYNAMIC BACK PRESSURE

SHV 5/84 Approved by *[Signature]* 1138

MAINTENANCE ACTIVITY

QMSI PLANT WORKSHEET #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 N63800-00-015

402. PLANT'S COMMENT TO PRIOR TO MAINT. (FOR "S" IF FROM STORAGE) 5

403. TYPE OF MAINTENANCE CODE

- ☒ A. SCHEDULED/ROUTINE MAINTENANCE - NO FAILURE REQUIRING MAINTENANCE HAS OCCURRED SINCE LAST MAINTENANCE PERIOD
- ☐ B. MIN IMMEDIATE MAINTENANCE - SCHEDULED FOR NEXT OUTAGE AFTER A NON-CATASTROPHIC FAILURE OCCURRED
- ☐ C. INTERRUPTED/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 COMPLETED REPORT
 - ☐ D. DEVIATIONS TO PREVIOUSLY COMPLETED REPORT
- NOTE: FOR C. AND D., ITEMS 403 AND 404 MUST MATCH THOSE IN 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 410.

410. RATE OF FAILURE (IN/DAY/YR) None

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

413. VOLTAGE OF ELECTRIC POWER SUPPLY

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

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

414. TYPE FAILURE (CHECK AS MANY AS APPLICABLE)

- ☐ A. LIFTED PREMATURELY
- ☐ B. LIFTED BEYOND SETPOINT
- ☐ C. LIFTED PAST SETPOINT
- ☐ D. FAILED TO LIFT
- ☐ E. FAILED TO BE CLOSE
- ☐ F. FAILED TO FULLY BE SEAT
- ☐ G. LEAKAGE (OTHER THAN MINIM)
- ☐ H. INVERTENT OPENING OF S/R VALVE
- ☐ I. OTHER (EXPLAIN IN ITEM 419)

- ☐ A. TAILPIPE THERMOCOUPLE READING HIGH
- ☐ B. TAILPIPE PRESSURE SWITCH
- ☐ C. TAILPIPE PRESSURE SWITCH
- ☐ D. TAILPIPE PRESSURE SWITCH
- ☐ E. TAILPIPE PRESSURE SWITCH
- ☐ F. TAILPIPE PRESSURE SWITCH
- ☐ G. TAILPIPE PRESSURE SWITCH
- ☐ H. TAILPIPE PRESSURE SWITCH
- ☐ I. TAILPIPE PRESSURE SWITCH
- ☐ J. TAILPIPE PRESSURE SWITCH
- ☐ K. TAILPIPE PRESSURE SWITCH
- ☐ L. TAILPIPE PRESSURE SWITCH
- ☐ M. TAILPIPE PRESSURE SWITCH
- ☐ N. TAILPIPE PRESSURE SWITCH
- ☐ O. TAILPIPE PRESSURE SWITCH
- ☐ P. TAILPIPE PRESSURE SWITCH
- ☐ Q. TAILPIPE PRESSURE SWITCH
- ☐ R. TAILPIPE PRESSURE SWITCH
- ☐ S. TAILPIPE PRESSURE SWITCH
- ☐ T. TAILPIPE PRESSURE SWITCH
- ☐ U. TAILPIPE PRESSURE SWITCH
- ☐ V. TAILPIPE PRESSURE SWITCH
- ☐ W. TAILPIPE PRESSURE SWITCH
- ☐ X. TAILPIPE PRESSURE SWITCH
- ☐ Y. TAILPIPE PRESSURE SWITCH
- ☐ Z. TAILPIPE PRESSURE SWITCH

416. EFFECT OF FAILURE ON PLANT (USE CHECKER ONLY)

- ☐ A. PLANT IN NORMAL OPERATION
- ☐ B. PLANT IN NORMAL OPERATION
- ☐ C. PLANT IN NORMAL OPERATION
- ☐ D. PLANT IN NORMAL OPERATION
- ☐ E. PLANT IN NORMAL OPERATION
- ☐ F. PLANT IN NORMAL OPERATION
- ☐ G. PLANT IN NORMAL OPERATION
- ☐ H. PLANT IN NORMAL OPERATION
- ☐ I. PLANT IN NORMAL OPERATION
- ☐ J. PLANT IN NORMAL OPERATION
- ☐ K. PLANT IN NORMAL OPERATION
- ☐ L. PLANT IN NORMAL OPERATION
- ☐ M. PLANT IN NORMAL OPERATION
- ☐ N. PLANT IN NORMAL OPERATION
- ☐ O. PLANT IN NORMAL OPERATION
- ☐ P. PLANT IN NORMAL OPERATION
- ☐ Q. PLANT IN NORMAL OPERATION
- ☐ R. PLANT IN NORMAL OPERATION
- ☐ S. PLANT IN NORMAL OPERATION
- ☐ T. PLANT IN NORMAL OPERATION
- ☐ U. PLANT IN NORMAL OPERATION
- ☐ V. PLANT IN NORMAL OPERATION
- ☐ W. PLANT IN NORMAL OPERATION
- ☐ X. PLANT IN NORMAL OPERATION
- ☐ Y. PLANT IN NORMAL OPERATION
- ☐ Z. PLANT IN NORMAL OPERATION

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

418. WHEN THE ANY ATTACHMENTS (LIFT, POSITION INDICATOR, ETC.) IS ATTACHED TO S/R VALVE NOT DEPICTED IN ORIGINAL "AS FURNISHED" VALVE? IF SO, SPECIFY WHAT AND WHEN ATTACHED. REFERENCE IS TO VERIFY COMPATIBILITY WITH VALVE PERFORMANCE.

None

MAINTENANCE ACTIVITY (CONT'D.)

SAVS

419. DESCRIPTION OF FAILURE, INCLUDING DETECTION MODE: None

430. DATE REMOVED FROM SERVICE (MO/DA/YR) None

"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. _____	_____	_____	_____

434. TYPE TEST CODE:

- A. SET POINT TEST STEAM
- B. SET POINT TEST M₂ (MINIMUM)
- C. OPERATIONAL RELIEF TEST STEAM
- D. OPERATIONAL RELIEF TEST M₂
- E. LEAK TEST STEAM
- F. LEAK TEST M₂
- 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 _____

SRVS
 Prepared By: *[Signature]* 1138
 Approved By: *[Signature]*

MAINTENANCE ACTIVITY (CONT'D.)

PLANT TICKET #50-458

PAGE 3 OF 4

S/R VALVE SERIAL NUMBER N/63800-00-0115

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

453. (CONTINUED. LAB, OR VENDOR (CHECK ONE ONLY IF ITEM 452 IS "C"))
 (71) ☒ (CROSS VALVE & GAGE (U. BIPERES
 B16) ☐
 B24) ☐
 G082 ☐
 P999 ☐
 T020 ☐
 M335 ☐
 OTHER: ☐

454. (CONTINUED. LAB, OR VENDOR (CHECK ONE ONLY IF ITEM 452 IS "C"))
 (71) ☒ (CROSS VALVE & GAGE (U. BIPERES
 B16) ☐
 B24) ☐
 G082 ☐
 P999 ☐
 T020 ☐
 M335 ☐
 OTHER: ☐

455. MAINTENANCE/REFURBISHING PERFORMED (SELECT AS MANY AS APPLICABLE)
 A. ☒ ACTUATION STAGES REPLACED
 B. ☒ TOPMANS REPLACED WITH ONE OF SAME SETPOINT
 C. ☒ RELAP SEAT, BISC
 D. ☒ MACHINE PILOT VALVE DISC
 E. ☒ CLEAN & REPAIR PILOT ASSEMBLIES
 F. ☒ SETPOINT ADJUSTMENT
 G. ☒ VALVE PISTON GAGE SIZE IMPROVED
 H. ☒ SOLENOID ASSEMBLY REMOVED, REINSTALLED
 I. ☒ REPAIR/REPAIR BELLOW(S)
 J. ☒ REPLACE PILOT RINGS(S)
 K. ☒ REPLACE "O"-RINGS(S)
 L. ☒ REPLACE DIAPHRAGM(S)
 M. ☒ REPLACE/REPAIR BELLOW(S)
 N. ☒ REPLACE/REPAIR CASSET(S)
 O. ☒ REPLACE/REPAIR SPRING(S)
 P. ☒ OTHER (EXPLAIN IN NARRATIVE)

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 3F 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 3F NO FAILURE HAS OCCURRED.

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 3F NO FAILURE HAS OCCURRED.

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 3F NO FAILURE HAS OCCURRED.

460. DETAILS OF OBSERVED DAMAGE/CAUSE OF FAILURE NARRATIVE:
[Handwritten: none]

MAINTENANCE ACTIVITY (CONT'D.)

SHVS

165800-00-0115

410. DETAILS OF MAINTENANCE/REFURBISHING NARRATIVE: 1) actuator was refurbished 1/12/94

2) atm set pressure test performed at 135°F - sat

3) atm set leakage test - worst (>115 m/s/5 min) at 9000

4) body to bonnet joint resealed

5) atm set pressure tested sat

6) set leakage at 9000 sat (0 m/s/5 min)

7) valve shipped ring settings - 8 and -375

NOTE: Blowdown testing performed due to set pressure adjustment from 180 to 1190 PSIG.

410. DATE TESTED AFTER
ASSEMBLY (MO/DA/YR)
1-21-94

481. TEST REPORT NUMBERS FOR POST
ASSEMBLY BENCH TESTS:

POST ASSEMBLY 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 IN TEST INCLUDE UNITS (OR GIVE LEAKAGE RATE OR BUTTE "NO LEAK" FOR LEAKAGE TESTS)	487. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"
1. A	A	1190 ± 20%	Yes
2. E	H	> 115 m/s/5 min	No
3. C	X	2.3% to 5.8%	Yes
4. C	X	315-415 psig	Yes
5. A	A	1190 ± 20%	Yes
6. E	H	0 m/s/5 min	Yes
7. _____	_____	_____	_____
8. _____	_____	_____	_____

491. DATE REINSTALLED IN SERVICE (MO/DA/YR)
7/6/94

493. COMPONENT IN MAINE VALVE BEING INSTALLED
(UN "S" IF STORED OR "D" IF DISPOSED)

1B21*PUF051C

CODES

484. 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
- 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: RELIEF 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

7/6/94
signature back pressure

SHV526
Reviewed by: *[Signature]* 1138
Approved by: *[Signature]*

MAINTENANCE ACTIVITY

Q201. PLANT WORK KIT #50-458

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

401. S/R VALVE SERIAL NUMBER 26320-00-0046

402. PLANT'S COMMITMENT TO P/UM TO MAINT. (UM -S IF FROM STORAGE) 5

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 TO BE PERFORMED
- D. ☐ VALVE RELAXATION 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 419. IF NO FAILURE HAS OCCURRED, CONTINUE FROM ITEM 420.

410. DATE OF FAILURE (MM/DD/YY) 12/20/00

411. AUTOMATIC PRESSURE SWITCH OPERABLE? ☐ YES ☐ NO

412. ELECTRIC POWER SUPPLY AVAILABLE? ☐ YES ☐ 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 BEYOND 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)

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

416. EFFECT OF FAILURE ON P/UM (UM -S ONLY)

- A. ☐ POWER BUILDUP
- B. ☐ TURBINE TRIP
- C. ☐ MANUAL SCRAM
- D. ☐ AUTOMATIC SCRAM
- E. ☐ EXTENSION OF P/UM EXISTING
- F. ☐ SCRAMMING
- G. ☐ MANUAL SCRAMMING
- H. ☐ NO SIGNIFICANT EFFECT

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 DEPICTED ON ORIGINAL "AS FURNISHED" VALVE? IF SO, SPECIFY WHAT AND WHEN ATTACHED. REFERENCE IS TO VERIFY COMPATIBILITY WITH VALVE PERFORMANCE.

None

MAINTENANCE ACTIVITY (CONT'D.)

SRVS

419. DESCRIPTION OF FAILURE, INCLUDING DETECTION CODE: NOISE

420. DATE REMOVED FROM SERVICE (MO/DA/YR) 1/18

"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.			

434. TYPE TEST CODE:

- A. SET POINT TEST STEAM
- B. SET POINT TEST M₂ (NITROGEN)
- C. OPERATIONAL RELIABILITY TEST STEAM
- D. OPERATIONAL RELIABILITY TEST M₂
- E. LEAK TEST STEAM
- F. LEAK TEST M₂
- 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 LIST PRESSURE
- B. RESEAT RECLOSE PRESSURE
- C. VALVE OPENING DELAY TIME
- D. VALVE OPENING DELAY TIME
- E. VALVE OPENING DELAY TIME
- F. MAIN DISC OPENING STROKE TIME
- G. MAIN DISC OPENING STROKE TIME
- H. MAIN DISC OPENING STROKE TIME
- I. MAIN DISC OPENING STROKE TIME
- J. MAIN DISC OPENING STROKE TIME
- K. MAIN DISC OPENING STROKE TIME
- L. MAIN DISC OPENING STROKE TIME
- M. MAIN DISC OPENING STROKE TIME
- N. MAIN DISC OPENING STROKE TIME
- O. MAIN DISC OPENING STROKE TIME
- P. MAIN DISC OPENING STROKE TIME
- Q. MAIN DISC OPENING STROKE TIME
- R. MAIN DISC OPENING STROKE TIME
- S. MAIN DISC OPENING STROKE TIME
- T. MAIN DISC OPENING STROKE TIME
- U. MAIN DISC OPENING STROKE TIME
- V. MAIN DISC OPENING STROKE TIME
- W. MAIN DISC OPENING STROKE TIME
- X. OTHER

SRVS

Prepared By: *[Signature]* 1158
Approved By: *[Signature]*

MAINTENANCE ACTIVITY (CONT'D.)

PLANT TICKET #50-458

PAGE 3 OF 4

S/R VALVE SERIAL NUMBER 1263820-00-00426

451. MAINTENANCE/REFURBISHING
PERFORMED BY (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 (CHECK ONE)

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

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

- (711) ☒ (HUSBY VALVE & GALE (U.
DIREX
B16) ☐
B17) ☐
B18) ☐
C182 ☐
C183 ☐
C184 ☐
C185 ☐
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MAINTENANCE ACTIVITY (CONT'D.)

SHVS

4/10. DETAILS OF MAINTENANCE/REFURBISHING NARRATIVE: 1) Activator refurbished 12/20/93

2) atm set pressure tests performed with ambient temperature at 170°F and 135°F (special tests)

3) atm set pressure at 135°F sat

4. sat leakage test unsat at 90% (7-115 m/s/5 min) R

5. body to bonnet joint sawbed

6) atm set pressure test sat

7) sat leakage test sat at 90% (2-3 m/s/5 min) - sat

8. valve shipped Ring Settings - 8 RVC - 400. NOTE: bend-down testing performed due to set pressure adjustment from 180 to 190

P-19-

4/10. DATE TESTED AFTER REASSEMBLY (MO/DY/YR) 4/29/94
4/11. 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.)

4/10. DATE TESTED AFTER REASSEMBLY (MO/DY/YR)	4/11. TEST REPORT NUMBERS FOR POST REASSEMBLY BENCH TESTS:	4/12. TEST TYPE CODE (SELECT ONE PER LINE)	4/13. PARAMETER MEASURED CODE (SELECT ONE PER LINE)	4/14. NUMERICAL RESULTS IN TEST INCLUDE UNITS OR GIVE LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS	4/15. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"
11/18/94		A	A	1190 \pm 20% (135)	Yes
11/18/94		E	H	7-115 m/s/5 min	No
11/18/94		C	X	4.09% to 8.4%	Yes
11/18/94		C	X	310 psig - 426 psig	Yes
11/19/94		A	A	1190 \pm 20% (170°F)	No
11/19/94		A	A	1190 \pm 20% (135)	Yes
11/29/94		E	H	7-115 m/s/5 min	No
11/29/94		A	A	1190 \pm 20%	Yes
11/29/94		E	H	2-3 m/s/5 min	Yes

4/16. DATE REINSTALLED IN SERVICE (MO/DY/YR) 7/6/94
4/17. COMPONENT ID NUMBER VALVE REINSTALLED (UNLESS IF STOWED OR "A" IF DISPOSED) 1521K RVF051B

4/18. TYPE TEST CODE:
A. SET POINT TEST: STEAM
B. SET POINT TEST: H₂ (BUTHTONEN)
C. OPERATIONAL RELIEF TEST: STEAM
D. OPERATIONAL RELIEF TEST: H₂
E. LEAK TEST: STEAM
F. LEAK TEST: H₂
X. OTHER

4/19. 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. MAIN DISC OPENING: SURE TIME
F. MAIN DISC OPENING: SURE TIME
G. PILOT STAGE SEAT TIGHTNESS
H. MAIN STAGE SEAT TIGHTNESS
I. PLANNED CONNECTION GASKET LEAKAGE
X. OTHER

076 bleed down
dynamic back pressure

SHVS-1138
Approved by: *[Signature]*
S. B. B. 1138

MAINTENANCE ACTIVITY

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

401. S/B VALVE SERIAL NUMBER 163800-00-0037

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. ☐ IMMEDIATE MAINTENANCE - A FAILURE OCCURRED THAT REQUIRED IMMEDIATE MAINTENANCE OR PERFORMED VALVE RELOCATION REPORT ONLY - VALVE INSTALLED WITH NO MAINTENANCE PERFORMED.

402. PLANT'S COMMITMENT TO PUMP TO MAINT. (UM "S" IF FROM STORAGE) 5

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 A-D AND 430 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 430.

410. DATE OF FAILURE (Mo/Da/Yr) None

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

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

413. VOLTAGE OF ELECTRIC POWER SUPPLY

415. NUMBER OF FAILURE DETECTION (CHECK AS MANY AS APPLICABLE)

414. TYPE FAILURE (CHECK AS MANY AS APPLICABLE)

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

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

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

- A. ☐ PLANT BEYOND TRIP
- B. ☐ TRIPPING TRIP
- C. ☐ MANUAL SCRAM
- D. ☐ AUTOMATIC SCRAM
- E. ☐ EXTENSION OF PWR EXISTING
- F. ☐ CRITICALITY
- G. ☐ MANUAL SCRAMMING
- H. ☐ NO SIGNIFICANT EFFECT

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

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

None

MAINTENANCE ACTIVITY (CONT'D.)

SRVS

419. DESCRIPTION OF FAILURE, INCLUDING DETECTION METHOD: None

430. DATE REMOVED FROM SERVICE (MO/DA/YR) 2/8

"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"

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434. TEST TYPE CODE:

- A. SET POINT TEST STEAM
- B. SET POINT TEST M₂ (MINIMUM)
- C. OPERATIONAL RELIABILITY TEST STEAM
- D. LEAK TEST STEAM
- E. LEAK TEST M₂
- F. 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 LIQ PRESSURE
- B. RESET RECLOSE PRESSURE
- C. VALVE OPENING DELAY TIME
- D. VALVE OPENING DELAY TIME
- E. AUTOMATIC MAIN
- F. MAIN DISC OPENING STROUT TIME
- G. MAIN DISC OPENING STROUT TIME
- H. AUTOMATIC MAIN
- I. PILOT STAGE SEAT TIGHTNESS
- J. MAIN STAGE SEAT TIGHTNESS
- K. PLANNED CONNECTION GASLET LEAKAGE
- L. OTHER _____

Approved By: *[Signature]*
Approved By: *[Signature]*

MAINTENANCE ACTIVITY (CONT'D.)

PLANT (BUD) #50-458

S/H VALVE SEMIAL MUMBLER

431. MAINTENANCE (REPLACEMENT) SHIP
BEFORE BEING USED? (CHECK ONE)
- 435.. 45b. OBJECTIVE HANDLE / CAUSE OF FAILURE AS GIVEN AS MEANS AS APPLIED IN EARLY FAILURE
ANALYSIS 455 AND 456. IF A FAILURE HAS OCCURRED, DO NOT ANSWER 455. IF
NO FAILURE HAS OCCURRED.

A.	<input type="checkbox"/>	IN SITU (VALVE REMAINS IN PLACE)
B.	<input type="checkbox"/>	ON SITE (VALVE IS REMOVED FROM INSTALLATION BY REMAINS ON PLANT SITE)
C.	<input checked="" type="checkbox"/>	OFF-SITE

[illegible][illegible]

455. CUNNINGHAM, LAM, ONE VOLUME
[THE ONE ONLY OF ITEM 452.
15 "]

(MUSKY VALVE & GAGE CO.
 DIERGEN
 BRESCHE VALVE
 GENERAL ELECTRIC CORP.
 QUAND VALVE (MOT) MACHS
 TARGET BOX CORP.
 WYLE LABS
 OTHER:

505. MAINTENANCE / REPAIRS - SEE ALSO
REPAIRS AND MAINTENANCE
AS APPLICABLE

1. VALVE TIGHTENING
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 100. VALVE TIGHTENING

455. THESE HAVE
BROUGHT
THREATS TO
AND HAVE
CAUSE OF FAILURE /
BROUGHT THE SAME
FAILURE HAS
FAILURE HAS

1 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

[illegible]

NO DAMAGE EXCEPT MINOR BUCKLING IN PLATE

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

—None—

MAINTENANCE ACTIVITY (CONT'D.)

SNVS

410. DETAILS OF MAINTENANCE/REFURBISHING NARRATIVE: 1) Actuator was refurbished on 12/7/93
 2) str. alt. pressure test performed at 135°F - sat 3) str. seat leakage test at 90°F
 unsat (> 500 mls/5 min) 4) str. set pressure test performed at 135°F - sat
 5) str. seat leakage test at 90°F - unsat (> 200 mls/5 min) 6) str. set pressure
 test - sat 7) str. seat leakage test - unsat (> 115 mls/5 min) 8) nozzle + disc
 insert lagged 9) str. seat leakage at 90°F - sat (< 0 mls/5 min)
 10) valve shipped - ring bolts - 8 and - 425

404. TYPE TEST CODE:

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

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

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

401. TEST REPORT NUMBERS FOR POST REASSEMBLY DEMO TESTS: none

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

403. DATE TESTED AFTER REASSEMBLY (MO/DA/YR) 12/9/93 thru 12/13/93

404. TYPE CODE (SELECT ONE PER LINE)

405. PARAMETER MEASURED CODE (SELECT ONE PER LINE)

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

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

408. DATE RE-INSTALLED IN SERVICE (MO/DA/YR) 7/6/94

409. COMMENTS TO BE IN VALVE BE INSTALLED (OR "S" IF STORED OR "D" IF DISPOSED) 1B21* RVF041F

MAINTENANCE ACTIVITY

QMS PLANT DOCKET #40 - 458

SRV508 Approved by: *[Signature]* 1138

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

401. S/R VALVE SERIAL NUMBER 163820-00-0035

402. PLANT'S COMPLIMENT TO PRIOR TO MAINT. (FOR "S" IF FROM STORAGE) S

403. TYPE OF MAINTENANCE CODE

- A. ☒ SCHEDULED/ROUTINE MAINTENANCE - NO FAILURE BECOMING MAINTENANCE HAS OCCURRED SINCE LAST MAINTENANCE PERIOD
- B. ☐ NON-ROUTINE 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 INCOMPLETE 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 418.

410. DATE OF FAILURE (MO/DA/YR) 1/7/92

411. AUTOMATIC PRESSURE SWITCH OPERABLE? ☐ YES ☐ NO

412. ELECTRIC POWER SUPPLY AVAILABLE? ☐ YES ☐ NO

413. VOLTAGE OF ELECTRIC POWER SUPPLY

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

416. EFFECT OF FAILURE ON PLANT (U/M) (ENTER ONE ONLY)

414. TYPE FAILURE (CHECK AS MANY AS APPLICABLE)

- A. ☐ LIFTED PREMATURELY
- B. ☐ LIFTED BEYOND 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)

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

- A. ☐ PLUMBING
- B. ☐ THERMAL TRIP
- C. ☐ MANUAL SCRAM
- D. ☐ AUTOMATIC SCRAM
- E. ☐ EXTENSION OF PLANT EXISTING
- F. ☐ SHUTTING
- G. ☐ MANUAL SHUTTING
- H. ☐ NO SIGNIFICANT EFFECT

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 DEPICTED ON ORIGINAL "AS FURNISHED" VALVE? IF SO, SPECIFY WHAT AND WHEN ATTACHED. REFERENCE TESTS PERFORMED TO VERIFY COMPATIBILITY WITH VALVE PERFORMANCE: None

MAINTENANCE ACTIVITY (CONT'D.)

SRVS

419. DESCRIPTION OF FAILURE, INCLUDING DETECTION METHOD: NONE

430. DATE REMOVED FROM SERVICE (Mo/Da/Yr) 1/1/80

"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. _____	_____	_____	_____

439. TYPE TEST CODE:

- A. SET POINT TEST STEAM
- B. SET POINT TEST M₂ (NITROGEN)
- C. OPERATIONAL RELIEF TEST STEAM
- D. OPERATIONAL RELIEF TEST M₂
- E. LEAK TEST STEAM
- F. LEAK TEST M₂
- 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 LEAK PRESSURE
- B. RESET RECLOSURE PRESSURE
- C. VALVE OPENING DELAY TIME
- D. VALVE OPENING DELAY TIME
- E. AUTOMATIC MODE
- F. MAIN DISC OPENING STROKE TIME
- G. MAIN DISC OPENING STROKE TIME
- H. AUTOMATIC MODE
- I. PILOT STAGE SEAT TIGHTNESS
- J. MAIN STAGE SEAT TIGHTNESS
- K. FLANGED CONNECTION GASKET LEAKAGE
- L. OTHER _____

SRVS

Prepared by: *W. J. [Signature]*Approved by: *W. J. [Signature]*

MAINTENANCE ACTIVITY (CONT'D.)

PLANT TICKET #50 -458

PAGE 3 OF 4

S/N VALVE SERIAL NUMBER 163800-0035

451. MAINTENANCE/REPAIRING
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/REPAIRING
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.")

- (711) (MISY VALVE & GAGE (U.
B167) PIPERS
B167) PRESSUR
B167) GENERAL VALVE
C102? GENERAL ELECTRIC ZIMP;
07000 GRAND VALVE (MOI HIPS) (U.S.A.)
1020 TARGET ROCK CORP.
M336 WYLE LABS
OTHER: _____

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

- A. ☒ ACTUATION STAGES REPLACED
B. ☒ TOPNORIS REPLACED WITH ONE OF SAME SETPOINT
C. ☒ RELAP SEAT, DISC
D. ☒ MACHINE PILOT VALVE DISC
E. ☒ CLEAN & REMOIN PILOT ASSEMBLIES
F. ☒ SETPOINT ADJUSTMENT
G. ☒ VALVE INHIBIT SAME SIZE INCREASED
H. ☒ SOLENOID ASSEMBLY REMOVED, BE INSTALLED
I. ☒ REPAIR/REPAIR STEAM IN ORGONON OFFICE
J. ☒ REPLACE PISTON RING(S)
K. ☒ REPLACE PISTON RING(S)
L. ☒ REPLACE DIAPHRAGM(S)
M. ☒ REPLACE/REPAIR BELLOWS
N. ☒ REPLACE/REPAIR GASKET(S)
O. ☒ REPLACE/REPAIR SPRING(S)
P. ☒ 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
IMMEDIATELY TO
ANY FAILURE

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.	

456. 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

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

None

MAINTENANCE ACTIVITY (CONT'D.)

SHVS

S/N VALVE SERIAL NUMBER

N6380-00-0035

470. DETAILS OF MAINTENANCE/REFURBISHING NARRATIVE: 1) actuator was refurbished on 12/9/93

2) str. set pressure test performed at 135°F - sat

3) str. set leakage test at 90% - unsat (> 115 mls/5 min)

4) body to bonnet joint reworked

5) str. set pressure test at 135°F sat

6) str. set leakage test at 90% sat (4-12 mls/5 min)

7) valve shipped w/ing settings - 8 and -400

480. DATE TESTED AFTER ASSEMBLY (MO/DY/YR) 12/9/93

481. TEST REPORT NUMBERS FOR POST ASSEMBLY BENCH TESTS: - None -

POST ASSEMBLY 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 OR TEST INCLUDE UNITS (OR GIVE LEAKAGE RATE OR WEIGHT LOSS FOR LEAKAGE TESTS)	487. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"
1. A	A	116.5 ± 2.70	Yes
2. E	H	7-115 mls/5 min	No
3. A	A	116.5 ± 2.70	Yes
4. E	H	7-12 mls/5 min	Yes
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____

488. DATE REINSTALLED IN SERVICE (MO/DY/YR)

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

7/6/94

1821 RUF04C

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

MAINTENANCE ACTIVITY

QMS PLANT DECKLET #50 - 758

SHV528 Approved by: *[Signature]* 1138

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

401. S/R VALVE SERIAL NUMBER NK3800-00-0033

402. PLANT'S COMPLIMENT TO MAINT. (FOR "S" IF FROM STORAGE) S

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 COMPLETED REPORT
- D. ☐ REVISIONS TO PREVIOUSLY COMPLETED REPORT

NOTE: FOR C. AND D., ITEMS 401 AND 402 MUST MATCH THOSE IN 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 410.

410. DATE OF FAILURE (MO/DY/YR) None

411. AUTOMATIC PRESSURE SWITCH OPERABLE? ☐ YES ☐ NO

412. ELECTRIC POWER SUPPLY AVAILABLE? ☐ YES ☐ NO

413. VOLTAGE OF ELECTRIC POWER SUPPLY

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

414. TYPE FAILURE (CHECK AS MANY AS APPLICABLE)

- A. ☐ LISTED PREMATURELY
- B. ☐ LISTED BEYOND SETPOINT
- C. ☐ LISTED PAST SETPOINT
- D. ☐ FAILED TO LIFT
- E. ☐ FAILED TO RECLOSE
- F. ☐ LEAKAGE (OTHER THAN MINOR)
- G. ☐ INVERTED OPENING OF S/R VALVE
- H. ☐ OTHER (EXPLAIN IN ITEM 416)

- A. ☐ TAILPIPE INSTRUMENTS/READING HIGH
- B. ☐ ANOMALY - TAILPIPE PRESSURE SWITCH
- C. ☐ PANEL INDICATOR LIGHTS
- D. ☐ BUMP IN ELECTRICAL OUTPUT
- E. ☐ STEAM FLOW HIGH MATCH
- F. ☐ IMBALANCE IN STEAM FLOW AMONG STEAM LINES
- G. ☐ RISE IN SUPPRESSION POOL TEMPERATURE
- H. ☐ RISE IN SUPPRESSION POOL LEVEL
- I. ☐ SLIGHT TRANSIENT BUMP IN VESSEL LEVEL
- J. ☐ RADIATION MONITOR(S)
- K. ☐ ACOUSTIC MONITOR(S)
- L. ☐ DIRECT MONITOR(S) POSITION INDICATOR
- M. ☐ INDIRECT MONITOR(S) POSITION INDICATOR
- N. ☐ OTHER (EXPLAIN IN ITEM 416)

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

- A. ☐ UNDER REACTION
- 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 (LVDT, POSITION INDICATOR, ETC.) ATTACHED TO S/R VALVE NOT DEPICTED IN ORIGINAL "AS FURNISHED" VALVE? IF SO, SPECIFY WHAT AND WHEN ATTACHED. REFERENCE IS TO VERIFY COMPATIBILITY WITH VALVE PERFORMANCE.

None

MAINTENANCE ACTIVITY (CONT'D.)

SRVS

419. DESCRIPTION OF FAILURE, INCLUDING DETECTION METHOD: NONE

430. DATE REMOVED FROM SERVICE (MO/DA/YR) 4/18

"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. _____	_____	_____	_____

434. 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 _____

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 LIQ PRESSURE
- B. RE-SET RE-CLOSE PRESSURE
- C. VALVE OPENING DELAY TIME
- D. VALVE OPENING DELAY TIME
- E. AUTOMATIC MAJOR
- F. MAIN DISC OPENING STROKE TIME
- G. MAIN DISC OPENING STROKE TIME
- H. AUTOMATIC MAJOR
- I. PILOT STAGE SEAT TIGHTNESS
- J. MAIN STAGE SEAT TIGHTNESS
- K. FLANGED CONNECTION GASKET LEAKAGE
- L. OTHER _____

Prepared By: *Michael 138*
 Approved By: *B. B. B.*

451. MAINTENANCE/REFURBISHING PERFORMED (CHECK ONE)
 A. ☐ IN SITU (VALVE REMAINS IN PLACE)
 B. ☐ ON SITE (VALVE IS REMOVED FROM INSTAL TATION 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")
 (711) ☒ (MOSBY VALVE & GAGE CO.)
 (B167) ☐ PIERERS
 (B243) ☐ BUESER VALVE
 (C082) ☐ GENERAL ELECTRIC CORP
 (0999) ☐ DODGE VALVE (NOT IMPRINTS) (CODE)
 (1020) ☐ TARGET SOCR CORP.
 (M336) ☐ HYLE LABS
 OTHER: _____

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

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

456. MAINTENANCE/REFURBISHING PERFORMED (SELECT AS MANY AS APPLICABLE)
 A. ☒ ACTUATOR STAGES REPLACED
 B. ☒ GASKETS REPLACED WITH ONE OF SAME SETPOINT
 C. ☒ RELAP SEAT, DISC
 D. ☒ MACHINE PILOT VALVE DISC
 E. ☒ CLEAN & REMOIN PILOT ASSEMBLIES
 F. ☒ SETPOINT ADJUSTMENT
 G. ☒ VALVE IMMOBILIZER SIZE INCREASED
 H. ☒ SON ENJOID ASSEMBLY REMOVED, REINSTALLED
 I. ☒ REORIFICE STEAM IN OUTSIDE WHIFLE
 J. ☒ REPLACE PISTON RINGS
 K. ☒ REPLACE DIAPHRAGM(S)
 L. ☒ REPLACE/REPAIR BEYONS
 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. 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.	456.
A. <input type="checkbox"/>	A. <input type="checkbox"/>
B. <input type="checkbox"/>	B. <input type="checkbox"/>
C. <input type="checkbox"/>	C. <input type="checkbox"/>
D. <input type="checkbox"/>	D. <input type="checkbox"/>
E. <input type="checkbox"/>	E. <input type="checkbox"/>
F. <input type="checkbox"/>	F. <input type="checkbox"/>
G. <input type="checkbox"/>	G. <input type="checkbox"/>
H. <input type="checkbox"/>	H. <input type="checkbox"/>
I. <input type="checkbox"/>	I. <input type="checkbox"/>
J. <input type="checkbox"/>	J. <input type="checkbox"/>
K. <input type="checkbox"/>	K. <input type="checkbox"/>
L. <input type="checkbox"/>	L. <input type="checkbox"/>
M. <input type="checkbox"/>	M. <input type="checkbox"/>
N. <input type="checkbox"/>	N. <input type="checkbox"/>
O. <input type="checkbox"/>	O. <input type="checkbox"/>
P. <input type="checkbox"/>	P. <input type="checkbox"/>
Q. <input type="checkbox"/>	Q. <input type="checkbox"/>
R. <input type="checkbox"/>	R. <input type="checkbox"/>
S. <input type="checkbox"/>	S. <input type="checkbox"/>
T. <input type="checkbox"/>	T. <input type="checkbox"/>
U. <input type="checkbox"/>	U. <input type="checkbox"/>
V. <input type="checkbox"/>	V. <input type="checkbox"/>
W. <input type="checkbox"/>	W. <input type="checkbox"/>
X. <input type="checkbox"/>	X. <input type="checkbox"/>
Y. <input type="checkbox"/>	Y. <input type="checkbox"/>
Z. <input type="checkbox"/>	Z. <input type="checkbox"/>

CAUSE OF FAILURE / DAMAGE RESULTING FROM FAILURE (IF FAILURE HAS OCCURRED)
 PILOT DISC STEAM LUT OR DAMAGED
 PISTON RINGS WORN, DAMAGED
 DAMAGE TO SEAT(S)
 FUNCTION MATERIAL (WIND, LINE) UN/USING SEAT
 DAMAGE TO TWO STAGE PISTON
 SET POINT UNIT - NOT DAMAGE RELATED
 DAMAGED SPRING(S)
 LASTING DEFECTS
 OTHER MANUFACTURING DEFECTS
 IMPROPER ASSEMBLY OR INSTALLATION, MISSING PARTS
 HUMMAL WAS
 DAMAGED (U-RINGS) (BEYOND NORMAL WEAR)
 DIAPHRAGM(S) DAMAGED
 GASKET(S) WORN BEYOND NORMAL, EXPL. FLD MEAN
 FELLOWS DAMAGED, WORN
 BROKEN AIR LINE
 SOLENOID FAILURE
 FAILURE OF AIR DISTRIBUTION ASSEMBLY
 OTHER (EXPLAIN IN NARRATIVE)
 NO DAMAGE EXCEPT THAT DIRECTLY RELATING TO FAILURE

460. DETAILS OF OBSERVED DAMAGE / CAUSE OF FAILURE NARRATIVE:
 --- none ---

MAINTENANCE ACTIVITY (CONT'D.)

SHVS

248'S S/M VALVE SERIAL NUMBER

N63800-00-0033

1/18/74

4/10. DETAILS OF MAINTENANCE/REFURBISHING NARRATIVE: 1) actuator was refurbished refit 1/18/74
2) str. set pressure test performed with ambient temperature at 100°F and 135°F
3) str. set pressure test at 135°F sat

4) seat leakage test result at 90% ($\approx 115 \text{ mts/5 min}$)

5) wedge/disc insert lapped $< .001$ " removed

6) seat leakage test sat (0)

7) AS left ring settings: -8 -400

480. DATE TESTED AFTER REASSEMBLY (MO/DA/YR) 1/26/74 str. set

481. TEST REPORT NUMBERS FOR POST REASSEMBLY BENCH TESTS:

pressure test 1/26/74 str. set leakage test.

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 OR TEST INCLUDE UNITS (OR GIVE LEAKAGE RATE OR RATE OF LEAK FOR LEAKAGE TESTS)	487. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"
1. A	A	1165-270 p.s.i.g	Yes
2. E	H	$\approx 115 \text{ mts/5 min}$	No
3. E	H	-0-	Yes
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____

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

491. COMPONENT IS BEING VALVE REINSTALLED (UN "S" IF STORED OR "Q" IF DISPOSED)

7/6/74

1821X RVFO41A

CODES

484. TYPE TEST CODE:

- A. SET POINT TEST: STEAM
- B. SET POINT TEST: M₂ (MILITARY)
- C. OPERATIONAL RELIEF TEST: STEAM
- D. OPERATIONAL RELIEF TEST: M₂
- E. LEAK TEST: STEAM
- F. LEAK TEST: M₂
- 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: LIFT PRESSURE
- B. RESEAT: RELIEF PRESSURE
- C. VALVE OPENING: DELAY TIME
- D. VALVE OPENING: DELAY TIME
- E. MAIN DISC OPENING: STROKE TIME
- F. MAIN DISC OPENING: STROKE TIME
- G. AUTOMATIC PRIME
- H. PUMP STAGE SEAT TIGHTNESS
- I. MAIN STAGE SEAT TIGHTNESS
- J. FLANGED CONNECTION GASKET LEAKAGE
- K. OTHER

SHV588
Prepared by: *[Signature]* 1138
Approved by: *[Signature]*

MAINTENANCE ACTIVITY

Q001. PLANT LOGSHEET #50 - 458

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

401. S/R VALVE SERIAL NUMBER 063800-00-0038

402. PLANT'S COMMENT TO FROM TO MAINT. (OR "S" IF FROM STORAGE) 5

403. TYPE OF MAINTENANCE CODE

- A. ☒ SCHEDULED/ROUTINE MAINTENANCE. NO FAILURE BEING BUILT. MAINTENANCE HAS OCCURRED SINCE LAST MAINTENANCE PERIOD.
- B. ☐ NON IMMEDIATE MAINTENANCE. SCHEDULED FOR NEXT OUTAGE AFTER A NON-CATASTROPHIC FAILURE OCCURRED.
- C. ☐ DISCHARGED/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 COMPLETED REPORT
 - D. ☐ REVISIONS TO PREVIOUSLY COMPLETED REPORT
- NOTE: FOR C. AND D., ITEMS 401 AND 402 MUST MATCH THOSE IN 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 418.

410. DATE OF FAILURE (MO/DA/YR) None

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

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

413. VOLTAGE OF ELECTRIC POWER SUPPLY

415. NUMBER OF FAILURE DETECTION (CHECK AS MANY AS APPLICABLE)

414. TYPE FAILURE (CHECK AS MANY AS APPLICABLE)

- A. ☐ LIFTED PREMATURELY
- B. ☐ LIFTED BEYOND 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)

- A. ☐ TAILPIPE THERMOCOUPLE READING HIGH
- B. ☐ ANNUNCIATOR - TAILPIPE PRESSURE SWITCH
- C. ☐ PANEL INDICATOR LIGHTS
- D. ☐ NOOP IN ELECTRICAL OUTPUT
- E. ☐ STEAM 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 BUMP IN VESSEL LEVEL
- J. ☐ RADIATION MONITOR(S)
- K. ☐ ACOUSTIC MONITOR(S)
- L. ☐ DIRECT MONITORING POSITION INDICATOR
- M. ☐ INDIRECT MONITORING POSITION INDICATOR
- N. ☐ OTHER (EXPLAIN IN ITEM 419)

416. EFFECT OF FAILURE ON PLANT (USE CHECKER ONLY)

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

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 DEPICTED ON ORIGINAL "AS FURNISHED" VALVE? IF SO, SPECIFY WHAT AND WHEN ATTACHED. REFERENCE TESTS PERFORMED TO VERIFY COMPATIBILITY WITH VALVE PERFORMANCE: None

MAINTENANCE ACTIVITY (CONT'D.)

SAVS

419. DESCRIPTION OF FAILURE, INCLUDING DETECTION MODE:

— NONE —

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

N/A

"AS FOUND" TESTS PERFORMED PRIOR TO DISASSEMBLY:

424. TEST TYPE (CODE (SELECT ONE PER LINE))	425. PARAMETER MEASURED (CODE (SELECT ONE PER LINE))	426. NUMERICAL RESULTS OF TESTS - INCLUDE UNITS OR GIVE LEAKAGE RATE OR WRITE "NO LEAK" FOR LEAKAGE TESTS	427. RESULTS OF TEST ACCEPTABILITY? "YES" OR "NO"
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			

434. TYPE TEST (CODE)

- A. SET POINT TEST STEAM
- B. SET POINT TEST M₂ (NITROGEN)
- C. OPERATIONAL RELIEF TEST STEAM
- D. OPERATIONAL RELIEF TEST M₂
- E. LEAK TEST STEAM
- F. LEAK TEST M₂
- 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 RECLOSURE PRESSURE
- C. VALVE OPENING DELAY TIME
MANUAL MODE
- D. VALVE OPENING DELAY TIME
AUTOMATIC MODE
- E. MAIN DISC OPENING STROBE TIME
MANUAL MODE
- F. MAIN DISC OPENING STROBE TIME
AUTOMATIC MODE
- G. PILOT STAGE SEAT TIGHTNESS
- H. MAIN STAGE SEAT TIGHTNESS
- I. PLANGED CONNECTION GASKET LEAKAGE
- J. OTHER

SHVS

Prepared by: *[Signature]*

Approved by: *[Signature]*

451. MAINTENANCE/REPAIRING PERFORMED (CHECK ONE)

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

452. MAINTENANCE/REPAIRING PERFORMED BY (CHECK ONE)

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

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

- (711) (MUSKY VALVE & GAGE (U.
 B16) DIRECTOR
 B24) GREASER VALVE
 C02) GENERAL ELECTRIC (IMP.
 C09) GROUND VALVE (NOT IMPRES (CODE)
 T020 TARGET BOX (IMP.
 W336 WYLE LABS
 OTHER: _____

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

- A. ☐ SITUATION STAGES REPLACED
 B. ☐ TOPGROSS REPLACED WITH ONE OF SAME SETPOINT
 C. ☐ RELAP SEAT, DISC
 D. ☐ MACHINE PILOT VALVE DISC
 E. ☐ CLEAN & REMOVED PILOT ASSEMBLIES
 F. ☐ SETPOINT ADJUSTMENT
 G. ☐ VALVE TIGHTEN BONE SIZE (IMMEAS)
 H. ☐ SOLENOID ASSEMBLY REMOVED, REINSTALLED
 I. ☐ REGRIND PISTON RINGS
 J. ☐ REPLACE "D-RINGS"
 K. ☐ REPLACE DIAPHRAGMS
 L. ☐ REPLACE/REPAIR BELLOWS
 M. ☐ REPLACE/REPAIR GASKET(S)
 N. ☐ REPLACE/REPAIR SPRING(S)
 O. ☒ OTHER (EXPLAIN IN NARRATIVE)

MAINTENANCE ACTIVITY (CONT'D.)

PLANT TICKET #50 - 458

S/N VALVE SERIAL NUMBER NK3800-00-0038

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 ONE) DAMAGE OBSERVED TO ANY FAILURE

- 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.

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

- A. ☐ PILOT DISC SEAM (U) OR DAMAGED PISTON RINGS WHEN, DAMAGED DAMAGE TO SEAT(S)
 B. ☐ LUBRICANT MATERIAL (OILING, CRUING) UN/LUBRICATED SEAT
 C. ☐ DAMAGE TO 2ND STAGE PISTON SET POINT (BRIEF - NOT DAMAGE RELATED)
 D. ☐ DAMAGED SPRING(S)
 E. ☐ CASTING DEFECTS
 F. ☐ OTHER MANUFACTURING DEFECTS
 G. ☐ IMPROPER ASSEMBLY OR INSTALLATION, MISSING PARTS
 H. ☐ NORMAL WEAR
 I. ☐ DAMAGED "D" RINGS (S) (BEYOND NORMAL WEAR)
 J. ☐ DIAPHRAGM(S) DAMAGED
 K. ☐ GASKET(S) WHEN BEYOND NORMAL, EXPELLER WEAR
 L. ☐ BELLOWS DAMAGED, WHEN BROKEN AIR LINE
 M. ☐ SOLENOID FAILURE
 N. ☐ FAILURE OF AIR OPERATED ASSEMBLY
 O. ☐ OTHER (EXPLAIN IN NARRATIVE)
 P. ☐ NO DAMAGE EXCEPT THAT DIRECTLY RELATING TO FAILURE

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

None

MAINTENANCE ACTIVITY (CONT'D.)

SHVS

S/M VALVE SERIAL NUMBER 1063800-00-0038

DATE 2/21/95

470. DETAILS OF MAINTENANCE/REFURBISHING NARRATIVE: 1) Actuator assembly was refurbished on 10/18/93 11/1/94

2) stem set pressure test was performed at 135°F - sat

3) stem seat leakage test performed at 90°F - sat

4) valve shipped / wing settings -8 and -430

480. DATE TESTED AFTER REASSEMBLY (MM/DD/YY) 1-12-94

481. TEST REPORT NUMBERS FOR POST REASSEMBLY BENCH TESTS: none

482. 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 OR TEST INCLUDE UNITS (DO NOT GIVE LEAKAGE RATE OR "WET" OR "LEAN" FOR LEAKAGE TESTS)	487. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"
1. A	H	1165 ± 20%	Yes
2. E	H	6-18 ml/s/5 min	Yes
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____

488. DATE REINSTALLED IN SERVICE (MM/DD/YY) 7/6/94

489. COMPONENT ID NUMBER VALVE BE INSTALLED (EN "S" IF STOWED OR "D" IF DISPOSED) 1021*RVFO41G

CODES

484. 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

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
- B. RESET
- C. VALVE OPENING DELAY TIME
- D. VALVE OPENING DELAY TIME
- E. AUTOMATIC MODE
- F. MAIN DISC OPENING STROBE TIME
- G. MAIN DISC OPENING STROBE TIME
- H. PITCH STAGE SEAT TIGHTNESS
- I. MAIN STAGE SEAT TIGHTNESS
- J. PLANNED COMMISSIONING GASKET LEAKAGE
- K. OTHER

Reviewed by: *[Signature]* 1138
Approved by: *[Signature]*

MAINTENANCE ACTIVITY

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

401. S/R VALVE SERIAL NUMBER 163800-00-0043 402. PLANT'S COMMENTS TO PLANT TO MAINT. (USE "S" IF FROM STORAGE) S

403. TYPE OF MAINTENANCE CODE

A. ☒ SCHEDULED/ROUTINE MAINTENANCE. NO FAILURE REMAINING
B. ☐ MAINTENANCE HAS OCCURRED SINCE LAST MAINTENANCE PERIOD
C. ☐ AFTER A NON-CATASTROPHIC FAILURE OCCURRED
D. ☐ AFTER A MAJOR CATASTROPHIC FAILURE OCCURRED
E. ☐ MAINTENANCE PERFORMED IMMEDIATELY AFTER A FAILURE OCCURRED
F. ☐ MAINTENANCE PERFORMED IMMEDIATELY AFTER A FAILURE OCCURRED
G. ☐ MAINTENANCE PERFORMED IMMEDIATELY AFTER A FAILURE OCCURRED
H. ☐ MAINTENANCE PERFORMED IMMEDIATELY AFTER A FAILURE OCCURRED
I. ☐ MAINTENANCE PERFORMED IMMEDIATELY AFTER A FAILURE OCCURRED
J. ☐ MAINTENANCE PERFORMED IMMEDIATELY AFTER A FAILURE OCCURRED
K. ☐ MAINTENANCE PERFORMED IMMEDIATELY AFTER A FAILURE OCCURRED
L. ☐ MAINTENANCE PERFORMED IMMEDIATELY AFTER A FAILURE OCCURRED
M. ☐ MAINTENANCE PERFORMED IMMEDIATELY AFTER A FAILURE OCCURRED
N. ☐ MAINTENANCE PERFORMED IMMEDIATELY AFTER A FAILURE OCCURRED
O. ☐ MAINTENANCE PERFORMED IMMEDIATELY AFTER A FAILURE OCCURRED
P. ☐ MAINTENANCE PERFORMED IMMEDIATELY AFTER A FAILURE OCCURRED
Q. ☐ MAINTENANCE PERFORMED IMMEDIATELY AFTER A FAILURE OCCURRED
R. ☐ MAINTENANCE PERFORMED IMMEDIATELY AFTER A FAILURE OCCURRED
S. ☐ MAINTENANCE PERFORMED IMMEDIATELY AFTER A FAILURE OCCURRED
T. ☐ MAINTENANCE PERFORMED IMMEDIATELY AFTER A FAILURE OCCURRED
U. ☐ MAINTENANCE PERFORMED IMMEDIATELY AFTER A FAILURE OCCURRED
V. ☐ MAINTENANCE PERFORMED IMMEDIATELY AFTER A FAILURE OCCURRED
W. ☐ MAINTENANCE PERFORMED IMMEDIATELY AFTER A FAILURE OCCURRED
X. ☐ MAINTENANCE PERFORMED IMMEDIATELY AFTER A FAILURE OCCURRED
Y. ☐ MAINTENANCE PERFORMED IMMEDIATELY AFTER A FAILURE OCCURRED
Z. ☐ MAINTENANCE PERFORMED IMMEDIATELY AFTER A FAILURE OCCURRED

NOTE: IF MAINTENANCE IS ASSOCIATED WITH ANY FAILURE, COMPLETE ITEMS 410 THROUGH 415. IF NO FAILURE HAS OCCURRED, CONTINUE FROM ITEM 416.

410. DATE OF FAILURE (MO/DA/YR) NONE 411. AUTOMATIC PRESSURE SWITCH OPERABLE? ☐ YES OR ☐ NO

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

413. VOLTAGE OF ELECTRIC POWER SUPPLY NONE 414. TYPE FAILURE (CHECK AS MANY AS APPLICABLE)

A. ☐ LIFTED PREMATURELY
B. ☐ LIFTED BELOW SETPOINT
C. ☐ LIFTED PAST SETPOINT
D. ☐ FAILED TO LEFT
E. ☐ FAILED TO BE CLOSE
F. ☐ LEAKAGE (OTHER THAN MINOR)
G. ☐ INADEQUATE OPENING OF S/R VALVE
H. ☐ OTHER (EXPLAIN IN ITEM 415)

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

A. ☐ TAILPIPE THERMOCOUPLE BRIDGING HIGH
B. ☐ TAILPIPE THERMOCOUPLE BRIDGING LOW
C. ☐ TAILPIPE THERMOCOUPLE BRIDGING MEDIUM
D. ☐ TAILPIPE THERMOCOUPLE BRIDGING LOW
E. ☐ TAILPIPE THERMOCOUPLE BRIDGING HIGH
F. ☐ TAILPIPE THERMOCOUPLE BRIDGING MEDIUM
G. ☐ TAILPIPE THERMOCOUPLE BRIDGING LOW
H. ☐ TAILPIPE THERMOCOUPLE BRIDGING HIGH
I. ☐ TAILPIPE THERMOCOUPLE BRIDGING MEDIUM
J. ☐ TAILPIPE THERMOCOUPLE BRIDGING LOW
K. ☐ TAILPIPE THERMOCOUPLE BRIDGING HIGH
L. ☐ TAILPIPE THERMOCOUPLE BRIDGING MEDIUM
M. ☐ TAILPIPE THERMOCOUPLE BRIDGING LOW
N. ☐ TAILPIPE THERMOCOUPLE BRIDGING HIGH
O. ☐ TAILPIPE THERMOCOUPLE BRIDGING MEDIUM
P. ☐ TAILPIPE THERMOCOUPLE BRIDGING LOW
Q. ☐ TAILPIPE THERMOCOUPLE BRIDGING HIGH
R. ☐ TAILPIPE THERMOCOUPLE BRIDGING MEDIUM
S. ☐ TAILPIPE THERMOCOUPLE BRIDGING LOW
T. ☐ TAILPIPE THERMOCOUPLE BRIDGING HIGH
U. ☐ TAILPIPE THERMOCOUPLE BRIDGING MEDIUM
V. ☐ TAILPIPE THERMOCOUPLE BRIDGING LOW
W. ☐ TAILPIPE THERMOCOUPLE BRIDGING HIGH
X. ☐ TAILPIPE THERMOCOUPLE BRIDGING MEDIUM
Y. ☐ TAILPIPE THERMOCOUPLE BRIDGING LOW
Z. ☐ TAILPIPE THERMOCOUPLE BRIDGING HIGH

416. EFFECT OF FAILURE ON PLANT (USE ONE ONLY)

A. ☐ PLANT REMAINS IN NORMAL OPERATION
B. ☐ PLANT REMAINS IN NORMAL OPERATION
C. ☐ PLANT REMAINS IN NORMAL OPERATION
D. ☐ PLANT REMAINS IN NORMAL OPERATION
E. ☐ PLANT REMAINS IN NORMAL OPERATION
F. ☐ PLANT REMAINS IN NORMAL OPERATION
G. ☐ PLANT REMAINS IN NORMAL OPERATION
H. ☐ PLANT REMAINS IN NORMAL OPERATION
I. ☐ PLANT REMAINS IN NORMAL OPERATION
J. ☐ PLANT REMAINS IN NORMAL OPERATION
K. ☐ PLANT REMAINS IN NORMAL OPERATION
L. ☐ PLANT REMAINS IN NORMAL OPERATION
M. ☐ PLANT REMAINS IN NORMAL OPERATION
N. ☐ PLANT REMAINS IN NORMAL OPERATION
O. ☐ PLANT REMAINS IN NORMAL OPERATION
P. ☐ PLANT REMAINS IN NORMAL OPERATION
Q. ☐ PLANT REMAINS IN NORMAL OPERATION
R. ☐ PLANT REMAINS IN NORMAL OPERATION
S. ☐ PLANT REMAINS IN NORMAL OPERATION
T. ☐ PLANT REMAINS IN NORMAL OPERATION
U. ☐ PLANT REMAINS IN NORMAL OPERATION
V. ☐ PLANT REMAINS IN NORMAL OPERATION
W. ☐ PLANT REMAINS IN NORMAL OPERATION
X. ☐ PLANT REMAINS IN NORMAL OPERATION
Y. ☐ PLANT REMAINS IN NORMAL OPERATION
Z. ☐ PLANT REMAINS IN NORMAL OPERATION

417. TEMP. OF ENVIRONMENT AROUND S/R VALVE (IF AVAILABLE) NONE

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 IS TO VERIFICATION OF VALVE COMPATIBILITY WITH VALVE PERFORMANCE.

SRVS

MAINTENANCE ACTIVITY (CONT'D.)

PAGE 2 OF 4

PLANT IDENT # 50-458

S/M VALVE SERIAL NUMBER 063800-00-0043

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

420. DATE REMOVED FROM SERVICE (MO/DA/YR) N/A

"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. _____	_____	_____	_____

434. TYPE TEST CODE:

- A. SET POINT TEST STEAM
- B. SET POINT TEST N₂ (MINIMUM)
- 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
- B. RESET
- C. VALVE OPENING DELAY TIME
- D. VALVE OPENING DELAY TIME
- E. AUTOMATIC MODE
- F. MAIN DISC OPENING STROKE TIME
- G. MAIN DISC OPENING STROKE TIME
- H. PILOT STAGE SEAT TIGHTNESS
- I. MAIN STAGE SEAT TIGHTNESS
- J. FLANGED CONNECTION GASKET LEAKAGE
- K. OTHER _____

SRVS

Prepared by: *Attended 1138*
 Approved by: *SB Bird*

MAINTENANCE ACTIVITY (CONT'D.)

PAGE 3 OF 4

PLANT IDENT #50-458

S/N VALVE SERIAL NUMBER N63800-00-0043

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

453. (CONTRACTOR, LAB. OR VENDOR) (CHECK ONE ONLY IF ITEM 452 IS "C")
 (71) ☒ CRUSHY VALVE & GAGE (U.)
 (16) ☐ DIAPHRAGM VALVE
 (24) ☐ DIAPHRAGM VALVE
 (48) ☐ GENERAL ELECTRIC COMP.
 (145) ☐ DRUM VALVE (NOT APPROVED)
 (102) ☐ TARGET BOX CORP.
 (136) ☐ WYLE LABS
 OTHER:

454. MAINTENANCE/REFURBISHING PERFORMED BY (SELECT AS MANY AS APPLICABLE)
 A. ☒ ACTUATION STAGES REPLACED
 B. ☒ TOPPERS REPLACED WITH ONE OF SAME SETPOINT
 C. ☒ RELAP SEAT, DISC
 D. ☒ MAINTENANCE PILOT VALVE DISC
 E. ☒ CLEAN S REMOVED PILOT ASSEMBLIES
 F. ☒ SETPOINT ADJUSTMENT
 G. ☒ VALVE TIGHTENING SIZE INCREASED
 H. ☒ SOLENOID ASSEMBLY REMOVED, REINSTALLED
 I. ☒ REPAIR/STEAM IN OUTSIDE UNIFILE
 J. ☒ REPLACE PILOT VALVE(S)
 K. ☒ REPLACE DIAPHRAGM(S)
 L. ☒ REPLACE/REPAIR BELLOWS
 M. ☒ REPLACE/REPAIR CASSET(S)
 N. ☒ REPLACE/REPAIR SPRING(S)
 O. ☒ OTHER (EXPLAIN IN NARRATIVE)

455. DETAILS OF OBSERVED DAMAGE / CAUSE OF FAILURE NARRATIVE:
 - NONE -

456. OBSERVED DAMAGE / CAUSE OF FAILURE (CHECK AS MANY AS APPLICABLE IN EACH COLUMN) ANSWER BOTH 455 AND 456. IF A FAILURE HAS OCCURRED, IT MUST 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, IT MUST ANSWER 456 IF NO FAILURE HAS OCCURRED.

456. OBSERVED DAMAGE / CAUSE OF FAILURE (CHECK AS MANY AS APPLICABLE IN EACH COLUMN) ANSWER BOTH 455 AND 456. IF A FAILURE HAS OCCURRED, IT MUST ANSWER 456 IF NO FAILURE HAS OCCURRED.

456. OBSERVED DAMAGE / CAUSE OF FAILURE (CHECK AS MANY AS APPLICABLE IN EACH COLUMN) ANSWER BOTH 455 AND 456. IF A FAILURE HAS OCCURRED, IT MUST ANSWER 456 IF NO FAILURE HAS OCCURRED.

456. DETAILS OF OBSERVED DAMAGE / CAUSE OF FAILURE NARRATIVE:
 - NONE -

4/U. DETAILS OF MAINTENANCE/REFURBISHING NARRATIVE: 1) AS FOUND STM SET PRESSURE N63800-00-0043
UNSAT (1180) INFO ONLY 2) AS FOUND SEAT LEAKAGE (STM) UNSAT (INFO ONLY) 3) NOZZLE/DISC INSERT
SEAT RELAPPED, EMUCTOR GASKET REPLACED 4) STM SET PRESSURE TEST - SAT 5) SEAT LEAKAGE
TEST - UNSAT (58ml/s) 6) NOZZLE/DISC INSERT SEAT RELAPPED 7) SEAT LEAKAGE TEST - SAT (0)
8) VALVE SHIPPED 9) NOZZLE RING AS FOUND - 8 AS LEFT - 8 10) GUIDE RING AS FOUND
- 400 AS LEFT - 400 11) ACTUATOR ASSEMBLY NOT REFURBISHED OR TESTED - 2/21/95
REFURBISHED AND TESTED ON 12/13/93

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

set pressure - 4/25/94
leakage - 4/26/94

481. TEST REPORT NUMBERS FOR POST
REASSEMBLY BENCH TESTS:

43978-2

43978-0 Appendix 1 "Notice of Anomaly"

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. A
2. E
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____

485. PARAMETER MEASURED
CODE (SELECT ONE
PER LINE)

A
H

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

1180 ± 2%
0 ml/s

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

Yes
Yes

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

7/6/94

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

1821*RVFO 47C

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
X. OTHER

495. 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. PLANNED CONNECTION GASKET LEAKAGE
X. OTHER

SHVS *Approved by: [Signature]*
Approved by: *502000*

MAINTENANCE ACTIVITY

Q00. PLANT URGENT NO - 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 N63800-00-0045

402. PLANT'S COMMITMENT TO RETURN TO MAINT. (ON "S" IF FROM STORAGE) S

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. ☐ UNUSUAL/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 SUBMITTED REPORT
 - D. ☐ REVISIONS TO PREVIOUSLY COMPLETED REPORT
- NOTE: FOR C. AND D., ITEMS A-DI AND 430 MUST MATCH THOSE ON REPORT TO BE APPROVED.

NOTE: IF MAINTENANCE IS ASSOCIATED WITH ANY FAILURE, COMPLETE ITEMS 410 THROUGH 419. IF NO FAILURE HAS OCCURRED, CONTINUE FROM ITEM 450.

410. DATE OF FAILURE (MM/DD/YY) NONE

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. ☐ AMMETER - TAILPIPE PRESSURE SWITCH
- C. ☐ PANEL INDICATOR LIGHTS
- D. ☐ BEEP IN ELECTRICAL OUTPUT
- E. ☐ STEAM FEED FLOW MISMATCH
- F. ☐ INDICATOR IN STEAM FLOW AMONG STEAM LINES
- G. ☐ RISE IN SUPPRESSION POOL TEMPERATURE
- H. ☐ RISE IN SUPPRESSION POOL LEVEL
- I. ☐ SLIGHT TRANSIENT BUMP IN VESSEL LEVEL
- J. ☐ RADIATION MONITOR(S)
- K. ☐ ACOUSTIC MONITOR(S)
- L. ☐ DIRECT MONITOR SAW POSITION INDICATOR
- M. ☐ INDIRECT MONITOR SAW 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 BE CLOSE
- F. ☐ FAILED TO FULLY BE SEAT
- G. ☐ LEAKAGE (OTHER THAN MINOR)
- H. ☐ INADVERTENT OPENING OF S/R VALVE
- I. ☐ OTHER (EXPLAIN IN ITEM 419)

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

- A. ☐ PLANT IN NORMAL OPERATION
- B. ☐ PLANT IN UNDESIRABLE OPERATION
- C. ☐ PLANT IN UNDESIRABLE OPERATION
- D. ☐ PLANT IN UNDESIRABLE OPERATION
- E. ☐ PLANT IN UNDESIRABLE OPERATION
- F. ☐ PLANT IN UNDESIRABLE OPERATION
- G. ☐ PLANT IN UNDESIRABLE OPERATION

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

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

n/a

SRVS MAINTENANCE ACTIVITY (CONT'D.)

PAGE 2 OF 4

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

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

"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.				

434. TYPE TEST CODE:

- A. SET POINT TEST STEAM
- B. SET POINT TEST M₂ (MINIMUM)
- C. OPERATIONAL RELIEF TEST STEAM
- D. OPERATIONAL RELIEF TEST M₂
- E. LEAK TEST STEAM
- F. LEAK TEST M₂
- 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 RECLOSURE PRESSURE
- C. VALVE OPENING DELAY TIME MANUAL MODE
- D. VALVE OPENING DELAY TIME AUTOMATIC MODE
- E. MAIN DISC OPENING STROKE TIME
- F. MAIN DISC OPENING STROKE TIME
- G. PILOT STAGE SEAT TIGHTNESS
- H. MAIN STAGE SEAT TIGHTNESS
- I. FLANGED CONNECTION GASKET LEAKAGE
- J. OTHER

SRVS
 Prepared By: *W. J. B. 1138*
 Approved By: *W. J. B.*

MAINTENANCE ACTIVITY (CONT'D.)

PLANT PROJECT 850-458
 S/N VALVE SERIAL NUMBER N63800-00-0045

451. MAINTENANCE/REFURBISHING PERFORMED (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 (CHECK ONE)
 A. ☐ OPERATIONS
 B. ☐ MAINTENANCE
 C. ☒ CONTRACTOR, LAB, OR VENDOR

453. CONTRACTOR, LAB, OR VENDOR (CHECK ONE ONLY IF ITEM 452 IS "C")
 (711) ☐
 (B16) ☐
 (B24) ☐
 (C28) ☐
 (P094) ☐
 (T020) ☐
 (M336) ☐
 OTHER: _____

454. MAINTENANCE/REFURBISHING PERFORMED (SELECT AS MANY AS APPLICABLE)
 A. ☒ ACTUATOR STAGES REPLACED
 B. ☒ TOPNUTS REPLACED WITH ONE OF SAME SETPOINT
 C. ☒ RELAP SEAT, DISC
 D. ☒ MACHINE PILOT VALVE DISC
 E. ☒ CLEAN & REWORK PILOT ASSEMBLY'S
 F. ☒ SETPOINT ADJUSTMENT
 G. ☒ VALVE INDOOR BOME SIZE INCREASED
 H. ☒ SOLENOID ASSEMBLY REMOVED, REINSTALLED
 I. ☒ REPAIR/REPLACE STEAM INDOOR UNIFILE
 J. ☒ REPLACE PISTON RING(S)
 K. ☒ REPLACE RINGS
 L. ☒ REPLACE DIAPHRAGM(S)
 M. ☒ REPLACE/REPAIR BELLOWS
 N. ☒ REPLACE/REPAIR GASKET(S)
 O. ☒ REPLACE/REPAIR SPRING(S)
 P. ☒ OTHER (EXPLAIN IN 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. NO FAILURE HAS OCCURRED.

455.	456.	CAUSE OF FAILURE / DAMAGE RESULTING FROM FAILURE (IF FAILURE HAS OCCURRED)
A. <input type="checkbox"/>	A. <input type="checkbox"/>	PILOT DISC STEAM LUG OR DAMAGED
B. <input type="checkbox"/>	B. <input type="checkbox"/>	PISTON RINGS WORN, DAMAGED
C. <input type="checkbox"/>	C. <input type="checkbox"/>	DAMAGE TO SEAT(S)
D. <input type="checkbox"/>	D. <input type="checkbox"/>	FURNISH MATERIAL (WHT, LHM) ON/UNDER SEAT
E. <input type="checkbox"/>	E. <input type="checkbox"/>	DAMAGE TO 2ND STAGE PISTON
F. <input type="checkbox"/>	F. <input type="checkbox"/>	SET POINT DRIFT - NOT DAMAGE RELATED
G. <input type="checkbox"/>	G. <input type="checkbox"/>	DAMAGED SPRING(S)
H. <input type="checkbox"/>	H. <input type="checkbox"/>	LASTING DEFECTS
I. <input type="checkbox"/>	I. <input type="checkbox"/>	OTHER MANUFACTURING DEFECTS
J. <input type="checkbox"/>	J. <input type="checkbox"/>	IMPROPER ASSEMBLY OR INSTALLATION, MISSING PARTS
K. <input type="checkbox"/>	K. <input type="checkbox"/>	DIAPHRAGM(S) DAMAGED
L. <input type="checkbox"/>	L. <input type="checkbox"/>	DIAPHRAGM(S) DAMAGED
M. <input type="checkbox"/>	M. <input type="checkbox"/>	DIAPHRAGM(S) DAMAGED
N. <input type="checkbox"/>	N. <input type="checkbox"/>	DIAPHRAGM(S) DAMAGED
O. <input type="checkbox"/>	O. <input type="checkbox"/>	DIAPHRAGM(S) DAMAGED
P. <input type="checkbox"/>	P. <input type="checkbox"/>	DIAPHRAGM(S) DAMAGED
Q. <input type="checkbox"/>	Q. <input type="checkbox"/>	DIAPHRAGM(S) DAMAGED
R. <input type="checkbox"/>	R. <input type="checkbox"/>	DIAPHRAGM(S) DAMAGED
S. <input type="checkbox"/>	S. <input type="checkbox"/>	DIAPHRAGM(S) DAMAGED
T. <input type="checkbox"/>	T. <input type="checkbox"/>	DIAPHRAGM(S) DAMAGED
U. <input type="checkbox"/>	U. <input type="checkbox"/>	DIAPHRAGM(S) DAMAGED
V. <input type="checkbox"/>	V. <input type="checkbox"/>	DIAPHRAGM(S) DAMAGED
W. <input type="checkbox"/>	W. <input type="checkbox"/>	DIAPHRAGM(S) DAMAGED
X. <input type="checkbox"/>	X. <input type="checkbox"/>	DIAPHRAGM(S) DAMAGED
Y. <input type="checkbox"/>	Y. <input type="checkbox"/>	DIAPHRAGM(S) DAMAGED
Z. <input type="checkbox"/>	Z. <input type="checkbox"/>	DIAPHRAGM(S) DAMAGED

456. DETAILS OF OBSERVED DAMAGE/CAUSE OF FAILURE NARRATIVE:
 — A220 —

MAINTENANCE ACTIVITY (UNIT 'D')

SNVS

4/11. DETAILS OF MAINTENANCE/REFURBISHING NARRATIVE: 1) as found str set pressure test unsat (1180) (info only)
2) as found str set leakage test sat (info only) 3) major dis. insert shipped, reductor gasket replaced 4) str set pressure - sat 5) str set leakage test unsat (600 m/s/min) 5) str pressure reduced to 90% and returned to 90% pressure 7) minor test sat/str set leakage test (1 drop/5 min) 8) valve shipped 9) major ring as found - 8 as left - 8
Circle ring as found - 395 as left - 400 10) reductor assembly refurbished and tested
on 12/9/93

480. DATE TESTED AFTER REASSEMBLY (MO/DA/YR) 4-24-94

481. TEST REPORT NUMBERS FOR POST REASSEMBLY BENCH TESTS: 43978-3

482. TEST REPORT NUMBERS FOR POST REASSEMBLY BENCH TEST RESULTS (ONLY THOSE WHICH MEASURE PERTINENT PARAMETERS) 43978-0 Appendix 1 "Notice of Anomaly"

483. TEST TYPE EQUIP (SELECT ONE PER LINE)

1. A	2. E	3. A	4. E	5. E	6.	7.	8.
A	H	A	H	H			

484. PARAMETER MEASURED (EQUIP (SELECT ONE PER LINE))

1. A	2. E	3. A	4. E	5. E	6.	7.	8.
A	H	A	H	H			

485. NUMERICAL RESULTS OF TEST (INCLUDE UNITS (OR GIVE LEAKAGE RATE OR WEIGHT "LEAK" FOR LEAKAGE TESTS)

1. 1180 ± 2%	2. 23 m/s/5 min	3. 1180 ± 2%	4. 600 m/s/5 min	5. 1 drop/5 min	6.	7.	8.
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486. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"

1. No	2. Yes	3. Yes	4. No	5. Yes	6.	7.	8.
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487. COMMENTS

488. DATE RE-INSTALLED IN SERVICE (MO/DA/YR) 7/6/94

489. COMMENTS TO MONITOR VALVE BEHAVIOR (FOR "S" IF STORED OR "B" IF DISPOSED) 1821 * RVF 047F

480. DATE TESTED AFTER REASSEMBLY (MO/DA/YR) 4-24-94

481. TEST REPORT NUMBERS FOR POST REASSEMBLY BENCH TESTS: 43978-3

482. TEST REPORT NUMBERS FOR POST REASSEMBLY BENCH TEST RESULTS (ONLY THOSE WHICH MEASURE PERTINENT PARAMETERS) 43978-0 Appendix 1 "Notice of Anomaly"

483. TEST TYPE EQUIP (SELECT ONE PER LINE)

1. A	2. E	3. A	4. E	5. E	6.	7.	8.
A	H	A	H	H			

484. PARAMETER MEASURED (EQUIP (SELECT ONE PER LINE))

1. A	2. E	3. A	4. E	5. E	6.	7.	8.
A	H	A	H	H			

485. NUMERICAL RESULTS OF TEST (INCLUDE UNITS (OR GIVE LEAKAGE RATE OR WEIGHT "LEAK" FOR LEAKAGE TESTS)

1. 1180 ± 2%	2. 23 m/s/5 min	3. 1180 ± 2%	4. 600 m/s/5 min	5. 1 drop/5 min	6.	7.	8.
--------------	-----------------	--------------	------------------	-----------------	----	----	----

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

1. No	2. Yes	3. Yes	4. No	5. Yes	6.	7.	8.
-------	--------	--------	-------	--------	----	----	----

487. COMMENTS

488. DATE RE-INSTALLED IN SERVICE (MO/DA/YR) 7/6/94

489. COMMENTS TO MONITOR VALVE BEHAVIOR (FOR "S" IF STORED OR "B" IF DISPOSED) 1821 * RVF 047F

Reviewed by: *[Signature]* 1138
 Approved by: *[Signature]*

MAINTENANCE ACTIVITY

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

401. S/R VALVE SERIAL NUMBER 163800-00-0110 402. PLANT'S COMMENT TO PIUOR TO MAINT. (ON "S" IF FROM STORAGE) 1821* RVF041B
Installed from 7/29/90 thru 3/2/92

403. TYPE OF MAINTENANCE CODE

- A. ☒ SCHEDULED/ROUTINE MAINTENANCE - NO FAILURE BECOMING
- B. ☐ MAINTENANCE HAS OCCURRED SINCE LAST MAINTENANCE PERIOD
- C. ☐ AFTER A MAINTENANCE - SCHEDULED FOR NEXT OUTAGE
- D. ☐ UNUSUAL/IMMEDIATE MAINTENANCE - A FAILURE OCCURRED
- E. ☐ THAT REQUIRED IMMEDIATE MAINTENANCE OR PERFORMED
- F. ☐ VALVE RELOCATION REPORT ONLY - VALVE INSTALLED WITH
- G. ☐ 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 A-D AND 430 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 418.

410. DATE OF FAILURE (MO/DA/YR) None 411. AUTOMATIC PRESSURE SWITCH OPERABLE? ☐ YES ☐ NO

412. ELECTRIC POWER SUPPLY AVAILABLE? ☐ YES ☐ NO

413. VOLTAGE OF ELECTRIC POWER SUPPLY

414. TYPE FAILURE (CHECK AS MANY AS APPLICABLE)

- A. ☐ LIFTED PREMATURELY
- B. ☐ LIFTED BEYOND SETPOINT
- C. ☐ FAILED TO LIFT
- D. ☐ FAILED TO BE CLOSE
- E. ☐ LEAKAGE (OTHER THAN MINOR)
- F. ☐ INAPPROPRIATE OPENING OF S/R VALVE
- G. ☐ OTHER (EXPLAIN IN ITEM 415)

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

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

- A. ☐ PUMP IN RUN TIME
- B. ☐ TUBING TRIP
- C. ☐ MANUAL SCRAM
- D. ☐ AUTOMATIC SCRAM
- E. ☐ EXTENSION OF PRE-EXISTING
- F. ☐ SIGNIFICANT
- G. ☐ MANUAL SCRAMMING
- H. ☐ NO SIGNIFICANT EFFECT

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

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

418. WERE THERE ANY ATTACHMENTS (LUBR. 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:

— NONE —

MAINTENANCE ACTIVITY (CONT'D.)

SRVS

419. DESCRIPTION OF FAILURE, INCLUDING DETECTION MODE: None

420. DATE REMOVED FROM SERVICE (MO/DA/YR) 3/12/92

"AS FOUND" TESTS PERFORMED PRIOR TO DISASSEMBLY:

Test Date: 3/14/94

424. TEST TYPE (CODE) (SELECT ONE PER LINE)	425. PARAMETER MEASURED (CODE (SELECT ONE PER LINE))	426. NUMERICAL RESULTS OF TESTS - INCLUDE UNITS OR WRITE "NO LEAK" FOR LEAKAGE TESTS	427. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"
1. <u>A</u>	<u>A</u>	<u>1165 ± 2%</u>	<u>Yes</u>
2. <u>E</u>	<u>H</u>	<u>25-33 ml/s/5min</u>	<u>Yes</u>
3. <u>A</u>	<u>A</u>	<u>1165 ± 2%</u>	<u>Yes (After 2 adjustments)</u>
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____

AS FOUND

434. TYPE TEST CODE:

- A. SET POINT TEST STEAM
- B. SET POINT TEST M₂ (MINIMUM)
- C. OPERATIONAL RELIEF TEST STEAM
- D. OPERATIONAL RELIEF TEST M₂
- E. LEAK TEST STEAM
- F. LEAK TEST M₂
- 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 RECLOSURE PRESSURE
- C. VALVE OPENING DELAY TIME
- D. VALVE OPENING DELAY TIME
- E. AUTOMATIC MATH
- F. MAIN DISC OPENING STROKE TIME
- G. MAIN DISC OPENING STROKE TIME
- H. PILOT STAGE SEAT TIGHTNESS
- I. MAIN STAGE SEAT TIGHTNESS
- J. FLANGED CONNECTION GASKET LEAKAGE
- K. OTHER _____

SRVS
Prepared by: *[Signature]*
Approved by: *[Signature]*

MAINTENANCE ACTIVITY (CONT'D.)

451. MAINTENANCE/REFUNDING PERFORMED (CHECK ONE)
☐ IN SITU (VALVE REMAINS IN PLACE)
☐ ON SITE (VALVE IS REMOVED FROM INSTALLATION BUT REMAINS ON PLANT SITE)
☒ OFF-SITE

452. MAINTENANCE/REFUNDING PERFORMED BY WHOM? (CHECK ONE)
☐ OPERATIONS
☒ MAINTENANCE
☐ CONTRACTOR, LAB, OR VENDOR

453. CONTRACTOR, LAB, OR VENDOR (CHECK ONE ONLY IF ITEM 452 IS "C")
 (711) ☒ (RUSBY VALVE & GAGE CO.)
 B16) ☐ BARRERS
 B243 ☐ BRESSER VALVE
 C082 ☐ GENERAL ELECTRIC COMP
 P999 ☐ ORAND VALVE (MO) RPHUS (CODE)
 I020 ☐ TARGET BOX COMP.
 H336 ☐ MULE 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 CORRELATED TO ANY FAILURE	456. CAUSE OF FAILURE/DAMAGE RESULTING FROM FAILURE (IF FAILURE HAS OCCURRED)
A. _____	A. _____
B. _____	B. _____
C. _____	C. _____
D. _____	D. _____
E. _____	E. _____
F. _____	F. _____
G. _____	G. _____
H. _____	H. _____
I. _____	I. _____
J. _____	J. _____
K. _____	K. _____
L. _____	L. _____
M. _____	M. _____
N. _____	N. _____
O. _____	O. _____
P. _____	P. _____
Q. _____	Q. _____
R. _____	R. _____
S. _____	S. _____
T. _____	T. _____
U. _____	U. _____
V. _____	V. _____
W. _____	W. _____
X. _____	X. _____
Y. _____	Y. _____
Z. _____	Z. _____

455. MAINTENANCE/REFUNDING PERFORMED (SELECT AS MANY AS APPLICABLE)
☒ ACTUATION STAGES REPLACED
☒ FORWARDERS REPLACED WITH ONE OF SAME SETPOINT
☒ RELAP SEAT, DISC
☒ MACHINE PILOT VALVE DISC
☒ CLEAN & REPAIR PILOT ASSEMBLY'S
☒ SETPOINT ADJUSTMENT
☒ VALVE TYPICAL BORE SIZE INCREASED
☒ SOLENOID ASSEMBLY REMOVED, REINSTALLED
☒ REPAIR OFFICE STEAM IN CORROSION UNIFORMITY
☒ REPLACE PILOT RINGS(S)
☒ REPLACE DIAPHRAGM(S)
☒ REPLACE/REPAIR BELLOWS
☒ REPLACE/REPAIR GASSET(S)
☒ REPLACE/REPAIR SPRING(S)
 OTHER (EXPLAIN IN NARRATIVE) _____

456. DETAILS OF OBSERVED DAMAGE/CAUSE OF FAILURE NARRATIVE:
 1) 2 adjustments were made to set pressure (spring tension) prior to set test.
 2) no "installed" SRV leakage data is available for 1990-1992
 3) details of condition of valve parts not given in report, however actuator assembly SN# 60777-315 was removed SN# 60777-277 was refurbished and installed after as-found testing completed.

MAINTENANCE ACTIVITY (CONT'D.)

SHVS

410. DETAILS OF MAINTENANCE/REFURBISHING NARRATIVE: 1) REPLACED ACTUATOR 2) ACTUATOR REFURBISHMENT INCLUDED DISASSEMBLY, CLEANED, INSPECTED, ARM PARTS REPLACED. 3) ACTUATOR EMERGENCY OPERABILITY + LEAKAGE TEST (3-15-94) USING N₂ AT 90 ± 2 PSI. 4) ACTUATOR LEAKAGE TEST USING N₂ WAS SET 5) MAKE PORTAL DISASSEMBLY, MAKE (DO NOT) INSERT PORTS, LOGGED, ACTUATOR GASKET REPLACED 6) 5TH ROOT LEAKAGE TEST WAS SET (0 m/s) 7) MAKE CHIPPED

TEST REPORT NUMBERS FOR POST ASSEMBLY BENCH TESTS:

3/17/94 STM SENT 43455-1

leakage test.

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

3/14/94 STM SET PRESSURE TEST.

404. TEST TYPE CODE (SELECT ONE PER LINE)	405. PARAMETER MEASURED (CODE SELECT ONE PER LINE)	406. NUMERICAL RESULTS IN TEST INCLUDE UNITS (OR GIVE LEAKAGE RATE OR RATE OF LEAK FOR LEAKAGE TESTS)	407. RESULTS OF TEST ACCEPTABLE? "YES" OR "NO"
1. E	H	0 m/s	Yes
2. A	A	165 ± 2%	Yes
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____

408. DATE REINSTALLED IN SERVICE (MO/DY/YR)

9/29 7/2/94 7/6/94

409. COMPONENT IN WHICH VALVE BE INSTALLED (OR "3" IF STORED OR "0" IF DISPOSED)

1821# RVFO 41L

CODES

404. 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

405.

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. RELEASE: RELEASE PRESSURE
- C. VALVE OPENING: DELAY TIME
- D. VALVE OPENING: DELAY TIME
- E. VALVE OPENING: DELAY TIME
- F. MAIN DISC OPENING: SINGULAR TIME
- G. MAIN DISC OPENING: SINGULAR TIME
- H. AUTOMATIC: PRESSURE
- I. PILOT STAGE SEAT: TIMING
- J. MAIN STAGE SEAT: TIMING
- K. FLANGED CONNECTION: GASKET LEAKAGE
- L. OTHER

MAINTENANCE ACTIVITY

400. PLANT WORK ORDER NO. - 458

SHVS Approved by: *[Signature]* 1138

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

401. S/R VALVE SERIAL NUMBER 162800-00-001

402. PLANT'S COMMENT TO FROM TO MAINT. (OR "S" IF FROM STORAGE) S

403. TYPE OF MAINTENANCE CODE

- A. ☒ SCHEDULED/ROUTINE MAINTENANCE - NO FAILURE BEQUIRING 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 COMPLETED 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 418.

410. DATE OF FAILURE (MO/DA/YR) _____

411. AUTOMATIC PRESSURE SWITCH OPERABLE?

☐ YES OR ☐ NO

412. ELECTRIC PUMP SUPPLY AVAILABLE?

☐ YES OR ☐ NO

413. VOLTAGE OF ELECTRIC PUMP SUPPLY _____

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

- A. ☐ TAILPIPE INDUCTOR COUPLE READING HIGH
- B. ☐ TAILPIPE PRESSURE SWITCH
- C. ☐ TAILPIPE PRESSURE SWITCH
- D. ☐ TAILPIPE PRESSURE SWITCH
- E. ☐ TAILPIPE PRESSURE SWITCH
- F. ☐ TAILPIPE PRESSURE SWITCH
- G. ☐ TAILPIPE PRESSURE SWITCH
- H. ☐ TAILPIPE PRESSURE SWITCH
- I. ☐ TAILPIPE PRESSURE SWITCH
- J. ☐ TAILPIPE PRESSURE SWITCH
- K. ☐ TAILPIPE PRESSURE SWITCH
- L. ☐ TAILPIPE PRESSURE SWITCH
- M. ☐ TAILPIPE PRESSURE SWITCH
- N. ☐ TAILPIPE PRESSURE SWITCH
- O. ☐ TAILPIPE PRESSURE SWITCH
- P. ☐ TAILPIPE PRESSURE SWITCH
- Q. ☐ TAILPIPE PRESSURE SWITCH
- R. ☐ TAILPIPE PRESSURE SWITCH
- S. ☐ TAILPIPE PRESSURE SWITCH
- T. ☐ TAILPIPE PRESSURE SWITCH
- U. ☐ TAILPIPE PRESSURE SWITCH
- V. ☐ TAILPIPE PRESSURE SWITCH
- W. ☐ TAILPIPE PRESSURE SWITCH
- X. ☐ TAILPIPE PRESSURE SWITCH
- Y. ☐ TAILPIPE PRESSURE SWITCH
- Z. ☐ TAILPIPE PRESSURE SWITCH

414. TYPE FAILURE (CHECK AS MANY AS APPLICABLE)

- A. ☐ LIFTED PREMATURELY
- B. ☐ LIFTED BEYOND SETPOINT
- C. ☐ LIFTED PAST SETPOINT
- D. ☐ FAILED TO LIFT
- E. ☐ FAILED TO BE CLOSE
- 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 (CHECK ONE ONLY)

- A. ☐ PLANT SHUT DOWN
- B. ☐ PLANT TRIP
- C. ☐ PLANT SHUT DOWN
- D. ☐ PLANT SHUT DOWN
- E. ☐ PLANT SHUT DOWN
- F. ☐ PLANT SHUT DOWN
- G. ☐ PLANT SHUT DOWN
- H. ☐ PLANT SHUT DOWN
- I. ☐ PLANT SHUT DOWN
- J. ☐ PLANT SHUT DOWN
- K. ☐ PLANT SHUT DOWN
- L. ☐ PLANT SHUT DOWN
- M. ☐ PLANT SHUT DOWN
- N. ☐ PLANT SHUT DOWN
- O. ☐ PLANT SHUT DOWN
- P. ☐ PLANT SHUT DOWN
- Q. ☐ PLANT SHUT DOWN
- R. ☐ PLANT SHUT DOWN
- S. ☐ PLANT SHUT DOWN
- T. ☐ PLANT SHUT DOWN
- U. ☐ PLANT SHUT DOWN
- V. ☐ PLANT SHUT DOWN
- W. ☐ PLANT SHUT DOWN
- X. ☐ PLANT SHUT DOWN
- Y. ☐ PLANT SHUT DOWN
- Z. ☐ PLANT SHUT DOWN

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

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

SRVS MAINTENANCE ACTIVITY (CONT'D.)

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

NR3800-00-0041

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

"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 "N/A" FOR
 FOR LEAKAGE TESTS

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

434. TYPE TEST (CODE)

- A. SET POINT TEST STEAM
- B. SET POINT TEST M₂ (MINIMUM)
- C. OPERATIONAL RELIEF TEST STEAM
- D. OPERATIONAL RELIEF TEST M₂
- E. LEAK TEST STEAM
- F. LEAK TEST M₂
- 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 RECLOSURE PRESSURE
- C. VALVE OPENING DELAY TIME
- D. VALVE OPENING DELAY TIME
- E. AUTOMATIC MAIN
- F. MAIN DISC OPENING STROKE TIME
- G. MAIN DISC OPENING STROKE TIME
- H. PILOT STAGE SEAT TIGHTNESS
- I. MAIN STAGE SEAT TIGHTNESS
- J. FLANGED CONNECTION GASKET LEAKAGE
- K. OTHER

SRVS

Prepared by: *Jeffrey 1138*

Approved by: *SPD*

MAINTENANCE ACTIVITY (CONT'D.)

PLANT TICKET #50-458

PAGE 3 OF 4

S/N VALVE SERIAL NUMBER N63800-00-0041

451. MAINTENANCE/REFURBISHING PERFORMED (CHECK ONE) (CHECK ONE)
 A. ☐ IN SET (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 (CHECK ONE)
 A. ☐ OPERATIONS
 B. ☐ MAINTENANCE CONTRACTOR, LAB.
 C. ☒ ON VENDOR

453. CONTRACTOR, LAB, ON VENDOR (CHECK ONE ONLY IF ITEM 452 IS "C")
 (711) ☒ CRUSBY VALVE & GAGE (U.
 (216) ☐ REBERS
 (243) ☐ BRESSER VALVE
 (282) ☐ GENERAL ELECTRIC PUMP
 (299) ☐ ORAND VALVE (NOT REPAIRS) (U)
 (1020) ☐ TARGET BOX (ORP)
 (336) ☐ HYLE LABS
 OTHER: _____

455. MAINTENANCE/REFURBISHING PERFORMED (SELECT AS MANY AS APPLICABLE)
 A. ☐ ACTUATION STAGES REPLACED
 B. ☒ TOPGROSS REPLACED WITH ONE OF SAME SETPOINT
 C. ☒ RELAP SEAT, DISC
 D. ☒ MACHINE PILOT VALVE DISC
 E. ☒ CLEAN & REWORK PILOT ASSEMBLY'S
 F. ☒ SETPOINT ADJUSTMENT
 G. ☒ VALVE TRIM/ADJUST SIZE INCREASED
 H. ☒ SON ENDS ASSEMBLY REMOVED, REINSTALLED
 I. ☒ REGRIND STEAM IN ORGANO UNIFILE
 J. ☒ REPLACE (PISTON RINGS)
 K. ☒ REPLACE DIAPHRAGM(S)
 L. ☒ REPLACE/REPAIR BELLOWS
 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/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"/>	<input type="checkbox"/>
B. <input type="checkbox"/>	<input type="checkbox"/>
C. <input type="checkbox"/>	<input type="checkbox"/>
D. <input type="checkbox"/>	<input type="checkbox"/>
E. <input type="checkbox"/>	<input type="checkbox"/>
F. <input type="checkbox"/>	<input type="checkbox"/>
G. <input type="checkbox"/>	<input type="checkbox"/>
H. <input type="checkbox"/>	<input type="checkbox"/>
I. <input type="checkbox"/>	<input type="checkbox"/>
J. <input type="checkbox"/>	<input type="checkbox"/>
K. <input type="checkbox"/>	<input type="checkbox"/>
L. <input type="checkbox"/>	<input type="checkbox"/>
M. <input type="checkbox"/>	<input type="checkbox"/>
N. <input type="checkbox"/>	<input type="checkbox"/>
O. <input type="checkbox"/>	<input type="checkbox"/>
P. <input type="checkbox"/>	<input type="checkbox"/>
Q. <input type="checkbox"/>	<input type="checkbox"/>
R. <input type="checkbox"/>	<input type="checkbox"/>
S. <input type="checkbox"/>	<input type="checkbox"/>
T. <input type="checkbox"/>	<input type="checkbox"/>
U. <input type="checkbox"/>	<input type="checkbox"/>
V. <input type="checkbox"/>	<input type="checkbox"/>
W. <input type="checkbox"/>	<input type="checkbox"/>
X. <input type="checkbox"/>	<input type="checkbox"/>
Y. <input type="checkbox"/>	<input type="checkbox"/>
Z. <input type="checkbox"/>	<input type="checkbox"/>

460. DETAILS OF OBSERVED DAMAGE/CAUSE OF FAILURE NARRATIVE:
 NONE

MAINTENANCE ACTIVITY (CONT'D.)

SHVS

N63800-00-0041

410. DETAILS OF MAINTENANCE/REFURBISHING NARRATIVE: 1) AS FOUND SET PRESSURE (STM) TEST (SAT - INFO ONLY) 2) AS FOUND STM SEAT LEAKAGE TEST - FAILED (INFO ONLY) 3) NOZZLE/DISC INSERT SEAT LAPPED EJECTOR GASKET REPLACED 4) STM SEAT LEAKAGE TEST - FAILED (975mls) 5) STM SET PRESSURE TEST PASSED (1180 PSIG) 6) NOZZLE/DISC INSERT SEAT WAS RELAPPED 7) STM SEAT LEAKAGE CHECK AT 90% (MIRROR) - SAT 8) AFTER ADJUSTMENT STM SET PRESSURE - SAT 9) STM SEAT LEAKAGE TEST AT 90% - SAT (11mls) 10) VALVE SHIPPED 11) NOZZLE RING AS FOUND - 8 Guide Ring AS FOUND - 397 AS LEFT - 400 12) ACTUATOR ASSEMBLY NOT REFURBISHED OR TESTED - REFURBISHED AND TESTED ON 12/11/93.

COMES

480. DATE TESTED AFTER REASSEMBLY (MM/DD/YY) 481. TEST REPORT NUMBERS FOR POST REASSEMBLY BENCH TESTS:

4-29-94 STM SET PRESSURE 43978-4

4-26-94 STM LEAKAGE

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

43978-0 APPENDIX 1 "Notice of Anomaly"

484. TEST TYPE CODE (SELECT ONE PER LINE)

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

485. PARAMETER MEASURED CODE (SELECT ONE PER LINE)

A
H

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

1180 ± 2%
11mls

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

SAT
Yes

484. TYPE TEST CODE:

A. SET POINT TEST - STEAM
B. SET POINT TEST - H₂ (WITH INGEN)
C. OPERATIONAL RELIEF TEST - STEAM
D. OPERATIONAL RELIEF TEST - H₂
E. LEAK TEST - STEAM
F. LEAK TEST - H₂
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. SEAT - RELIEF PRESSURE
C. VALVE OPENING DELAY TIME
D. VALVE OPENING DELAY TIME
E. MAIN DISC OPENING STROKE TIME
F. MAIN DISC OPENING STROKE TIME
G. AUTOMATIC PHASE
H. MAIN STAGE SEAT TIGHTNESS
I. MAIN STAGE SEAT TIGHTNESS
X. OTHER

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

491. COMPONENT ID NUMBER VALVE REINSTALLED (UNLESS IF STOKED OR "B" IF DISPOSED)

7/6/94

1821X RVFD47A

SHVS 22
Reviewed by: *[Signature]* 1138

MAINTENANCE ACTIVITY

Q400. PLANT Docket #40 -458

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

Q01. S/R VALVE SERIAL NUMBER N63800-00-0044

Q02. PLANT'S COMMITMENT TO PRIOR TO MAINT. (ON "S" IF FROM STORAGE) 5

Q03. TYPE OF MAINTENANCE CODE

- A. ☒ SCHEDULED/ROUTINE MAINTENANCE. NO FAILURE REPAIRING. MAINTENANCE HAS OCCURRED SINCE LAST MAINTENANCE PERIOD.
- B. ☐ MAINTENANCE SCHEDULE FOR NEXT OUTAGE.
- C. ☐ AFTER A MAJOR 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.

Q04. TYPE REPORT

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

NOTE: FOR C. AND D., ITEMS A-D AND Q30 MUST MATCH THOSE ON REPORT TO BE APPROVED.

NOTE: IF MAINTENANCE IS ASSOCIATED WITH ANY FAILURE, COMPLETE ITEMS Q10 THROUGH Q12. IF NO FAILURE HAS OCCURRED, CONTINUE FROM ITEM Q13.

Q10. DATE OF FAILURE (MO/DA/YR) 11/27/82

Q11. AUTOMATIC PRESSURE SWITCH OPERABLE? ☐ YES OR ☐ NO

Q12. ELECTRIC POWER SUPPLY AVAILABLE? ☐ YES OR ☐ NO

Q13. VOLTAGE OF ELECTRIC POWER SUPPLY

Q14. TYPE FAILURE (CHECK AS MANY AS APPLICABLE)

- A. ☐ LIFTED PREMATURELY
- B. ☐ LIFTED BEYOND 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 Q19)

- A. ☐ TAILPIPE THERMOCOUPLE READING HIGH
- B. ☐ ANNUNCIATOR - TAILPIPE PRESSURE SWITCH
- C. ☐ PANEL INDICATOR LIGHTS
- D. ☐ BEEP IN ELECTRICAL OUTPUT
- E. ☐ STEAM FLOW HIGH
- F. ☐ INDICANCE IN STEAM FLOW ALONG STEAM LINES
- G. ☐ RISE IN SUPPRESSION POOL TEMPERATURE
- H. ☐ RISE IN SUPPRESSION POOL LEVEL
- I. ☐ SLIGHT TRANSIENT BUMP IN VESSEL LEVEL
- J. ☐ RADIATION MONITOR(S)
- K. ☐ ACOUSTIC MONITOR(S)
- L. ☐ DIRECT MONITOR SAW POSITION INDICATOR
- M. ☐ INDIRECT MONITOR SAW POSITION INDICATOR
- N. ☐ OTHER (EXPLAIN IN ITEM Q19)

Q15. NUMBER(S) OF FAILURE DETECTION (CHECK AS MANY AS APPLICABLE)

Q16. EFFECT OF FAILURE ON PLANT (USE CHECK BOX ONLY)

- A. ☐ PLANT REMAINS
- B. ☐ PLANT TRIP
- C. ☐ MANUAL SCRAM
- D. ☐ AUTOMATIC SCRAM
- E. ☐ EXTENSION OF PLANT EXISTING
- F. ☐ SCRAMMING
- G. ☐ MANUAL SCRAMMING
- H. ☐ NO SIGNIFICANT EFFECT

Q17. TEMP. OF ENVIRONMENT AROUND S/R VALVE (IF AVAILABLE)

Q18. WERE THERE ANY ATTACHMENTS (LOUT. POSITION INDICATOR, ETC.) ATTACHED TO S/R VALVE NOT DEPICTED ON ORIGINAL "AS FURNISHED" VALVE? IF SO, SPECIFY WHAT AND WHEN ATTACHED. REFERENCE IS TO VERIFY COMPATIBILITY WITH VALVE PERFORMANCE.

none

SRVS MAINTENANCE ACTIVITY (CONT'D.)

419. DESCRIPTION OF FAILURE, INCLUDING DETECTION METHOD:

— NONE —

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

2/18

"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. _____

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
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. RESERV. RECLOSE PRESSURE
C. VALVE OPENING DELAY TIME
D. VALVE OPENING DELAY TIME
E. AUTOMATIC MODE
F. MAIN DISC OPENING STROKE TIME
G. MAIN DISC OPENING STROKE TIME
H. PILOT STAGE SEAT TIGHTNESS
I. MAIN STAGE SEAT TIGHTNESS
J. PLANGED CONNECTION GASKET LEAKAGE
K. OTHER _____

MAINTENANCE ACTIVITY (CONT'D.)

Prepared by: *[Signature]*
Approved by: *[Signature]*

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.
C. ☒ ON VENDOR

453. CONTRACTOR, LAB, ON VENDOR (CHECK ONE ONLY IF ITEM 452 IS "C")
(711) ☒ (MISERY VALVE & GAGE E.U.)
(167) ☐ DIRECTORS
(243) ☐ PRESSUR VALVE
(242) ☐ GENERAL ELECTRIC COMP.
(9999) ☐ ORAND VALVE (HOT RINGS) (CUM)
(1020) ☐ TARGET BOX COMP.
(1336) ☐ MYLE 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, THE BUY NUMBER N5B 2F 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, THE BUY NUMBER N5B 2F NO FAILURE HAS OCCURRED.	456. CAUSE OF FAILURE/DAMAGE RESULTING FROM FAILURE (IF FAILURE HAS OCCURRED)
A. <input type="checkbox"/> PISTON DISC STEAMS (OUT OR DAMAGED)	A. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)
B. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)	B. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)
C. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)	C. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)
D. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)	D. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)
E. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)	E. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)
F. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)	F. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)
G. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)	G. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)
H. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)	H. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)
I. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)	I. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)
J. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)	J. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)
K. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)	K. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)
L. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)	L. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)
M. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)	M. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)
N. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)	N. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)
O. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)	O. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)
P. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)	P. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)
Q. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)	Q. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)
R. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)	R. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)
S. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)	S. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)
T. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)	T. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)
U. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)	U. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)
V. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)	V. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)
W. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)	W. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)
X. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)	X. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)
Y. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)	Y. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)
Z. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)	Z. <input type="checkbox"/> PISTON RINGS (WORN, DAMAGED)

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

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

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

457. MAINTENANCE/REFURBISHING PERFORMED (SELECT AS MANY AS APPLICABLE)
A. <input type="checkbox"/> ACTUATION STAGES REPLACED
B. <input type="checkbox"/> TOPNORS REPLACED WITH ONE OF SAME SETPOINT
C. <input type="checkbox"/> RELAP SEAT, DISC
D. <input type="checkbox"/> MACHINE PILOT VALVE DISC
E. <input type="checkbox"/> CLEAN & REWORK PILOT ASSEMBLIES
F. <input type="checkbox"/> SETPOINT ADJUSTMENT
G. <input type="checkbox"/> VALVE THROAT BORE SIZE INCREASED
H. <input type="checkbox"/> SOLENOID ASSEMBLY REMOVED, REINSTALLED
I. <input type="checkbox"/> REPAIR/REPLACE STEAM INJECTION UNIFILE
J. <input type="checkbox"/> REPLACE PISTON RINGS
K. <input type="checkbox"/> REPLACE DIAPHRAGM(S)
L. <input type="checkbox"/> REPLACE/REPAIR BELLOWS
M. <input type="checkbox"/> REPLACE/REPAIR CASSET(S)
N. <input type="checkbox"/> REPLACE/REPAIR SPRING(S)
O. <input type="checkbox"/> OTHER (EXPLAIN IN NARRATIVE)

MAINTENANCE ACTIVITY (UNIT 'D')

SHVS

410. DETAILS OF MAINTENANCE/REFURBISHING NARRATIVE: 1) Actuator assembly was refurbished on 12/12/93
2) stem set pressure test was performed at 135°F - set 3) stem seat leakage test at 90% - unseat (>115 mls/5 min) 4) stem seat leakage test at 214/5 atm set pressure test performed at 135°F - set after body-bonnet joint was checked 5) stem seat leakage test at 90% - set (5-7 mls/5 min)
6) valve shipped / ring settings -8 and -400

484. TYPE TEST CODE:

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

486. MINUTICAL RESULTS ON TEST (INCLUDE UNITS (OR GIVE LEAKAGE RATE OR RATE "NO LEAK" FOR LEAKAGE TESTS)

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

481. TEST REPORT NUMBERS FOR POST ASSEMBLY BENCH TESTS: 12/13/93 thru 1/7/94

482. DATE TESTED AFTER REASSEMBLY (MO/DY/YR)

483. DATE MAINTAINED IN SERVICE (MO/DY/YR)

484. TEST TYPE CODE (SELECT ONE PER LINE)

485. PARAMETER MEASURED (CODE) (SELECT ONE PER LINE)

486. MINUTICAL RESULTS ON TEST (INCLUDE UNITS (OR GIVE LEAKAGE RATE OR RATE "NO LEAK" FOR LEAKAGE TESTS)

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

488. COMMENTS (IF THE VALVE BEING INSTALLED (OR "0" IF DISPOSED)

MAINTENANCE ACTIVITY

Q201. PLANT WORK ORDER #50 - 458

Reviewed by: *[Signature]* 1138

SHVS *[Signature]* Approved by: *[Signature]* S/B

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

401. S/R VALVE SERIAL NUMBER 163800-00-0034

402. PLANT'S COMMENT TO PLANT TO MAINT. (OR "S" IF FROM STORAGE) S

403. TYPE OF MAINTENANCE CODE

- A. ☒ SCHEDULED/ROUTINE MAINTENANCE - NO FAILURE BECOMING
- B. ☐ MAINTENANCE HAS OCCURRED SINCE LAST MAINTENANCE PERIOD
- C. ☐ AFTER A NON-CATASTROPHIC FAILURE OCCURRED
- D. ☐ AFTER A MAJOR CATASTROPHIC FAILURE OCCURRED
- E. ☐ MAINTENANCE REQUIRED IMMEDIATE MAINTENANCE - A FAILURE OCCURRED
- F. ☐ MAINTENANCE REQUIRED IMMEDIATE MAINTENANCE - A FAILURE OCCURRED
- G. ☐ 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 INCOMPLETE REPORT

NOTE: FOR C. AND D., ITEMS A-D AND 430 MUST MATCH THESE 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 418.

410. DATE OF FAILURE (MO/DA/YR) 12/01/80

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

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

413. VOLTAGE OF ELECTRIC POWER SUPPLY

415. PRESSURE(S) OF FAILURE INJECTION (CHECK AS MANY AS APPLICABLE)

414. TYPE FAILURE (CHECK AS MANY AS APPLICABLE)

- A. ☐ LIFTED PREMATURELY
- B. ☐ LIFTED BEYOND SETPOINT
- C. ☐ LIFTED FAST SETPOINT
- D. ☐ FAILED TO LIFT
- E. ☐ FAILED TO BE CLOSE
- F. ☐ FAILED TO FULLY BEAT
- G. ☐ LEAKAGE (OTHER THAN MINOR)
- H. ☐ INVERTED OPENING OF S/R VALVE
- I. ☐ OTHER (EXPLAIN IN ITEM 415)

- A. ☐ TAILPIPE THERMOCOUPLE READING HIGH
- B. ☐ TAILPIPE THERMOCOUPLE READING LOW
- C. ☐ TAILPIPE PRESSURE SWITCH
- D. ☐ TAILPIPE PRESSURE SWITCH
- E. ☐ TAILPIPE PRESSURE SWITCH
- F. ☐ TAILPIPE PRESSURE SWITCH
- G. ☐ TAILPIPE PRESSURE SWITCH
- H. ☐ TAILPIPE PRESSURE SWITCH
- I. ☐ TAILPIPE PRESSURE SWITCH
- J. ☐ TAILPIPE PRESSURE SWITCH
- K. ☐ TAILPIPE PRESSURE SWITCH
- L. ☐ TAILPIPE PRESSURE SWITCH
- M. ☐ TAILPIPE PRESSURE SWITCH
- N. ☐ TAILPIPE PRESSURE SWITCH
- O. ☐ TAILPIPE PRESSURE SWITCH
- P. ☐ TAILPIPE PRESSURE SWITCH
- Q. ☐ TAILPIPE PRESSURE SWITCH
- R. ☐ TAILPIPE PRESSURE SWITCH
- S. ☐ TAILPIPE PRESSURE SWITCH
- T. ☐ TAILPIPE PRESSURE SWITCH
- U. ☐ TAILPIPE PRESSURE SWITCH
- V. ☐ TAILPIPE PRESSURE SWITCH
- W. ☐ TAILPIPE PRESSURE SWITCH
- X. ☐ TAILPIPE PRESSURE SWITCH
- Y. ☐ TAILPIPE PRESSURE SWITCH
- Z. ☐ TAILPIPE PRESSURE SWITCH

- A. ☐ POWER IN RETURN LINE
- B. ☐ TAILPIPE PRESSURE SWITCH
- C. ☐ TAILPIPE PRESSURE SWITCH
- D. ☐ TAILPIPE PRESSURE SWITCH
- E. ☐ TAILPIPE PRESSURE SWITCH
- F. ☐ TAILPIPE PRESSURE SWITCH
- G. ☐ TAILPIPE PRESSURE SWITCH
- H. ☐ TAILPIPE PRESSURE SWITCH
- I. ☐ TAILPIPE PRESSURE SWITCH
- J. ☐ TAILPIPE PRESSURE SWITCH
- K. ☐ TAILPIPE PRESSURE SWITCH
- L. ☐ TAILPIPE PRESSURE SWITCH
- M. ☐ TAILPIPE PRESSURE SWITCH
- N. ☐ TAILPIPE PRESSURE SWITCH
- O. ☐ TAILPIPE PRESSURE SWITCH
- P. ☐ TAILPIPE PRESSURE SWITCH
- Q. ☐ TAILPIPE PRESSURE SWITCH
- R. ☐ TAILPIPE PRESSURE SWITCH
- S. ☐ TAILPIPE PRESSURE SWITCH
- T. ☐ TAILPIPE PRESSURE SWITCH
- U. ☐ TAILPIPE PRESSURE SWITCH
- V. ☐ TAILPIPE PRESSURE SWITCH
- W. ☐ TAILPIPE PRESSURE SWITCH
- X. ☐ TAILPIPE PRESSURE SWITCH
- Y. ☐ TAILPIPE PRESSURE SWITCH
- Z. ☐ TAILPIPE PRESSURE SWITCH

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

418. SERIAL NUMBER ANY ATTACHMENTS (LIFT, POSITION INDICATOR, ETC.) ATTACHED TO S/R VALVE NOT DEPICTED ON ORIGINAL "AS FURNISHED" VALVE? IF SO, SPECIFY WHAT AND WHEN ATTACHED. REFERENCE IS TO VERIFY COMPATIBILITY WITH VALVE PERFORMANCE.

N/A

MAINTENANCE ACTIVITY (CONT'D.)

SRVS

419. INSCRIPTION OF FAILURE, INCLUDING DETECTION METHOD: N/A

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

"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 M₂ (MINIMUM)
- C. OPERATIONAL RELIEF TEST STEAM
- D. OPERATIONAL RELIEF TEST M₂
- E. LEAK TEST STEAM
- F. LEAK TEST M₂
- G. 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. RESET RECLOSURE PRESSURE
- C. VALVE OPENING DELAY TIME
- D. VALVE OPENING DELAY TIME
- E. MAIN DISC OPENING STROKE TIME
- F. MAIN DISC OPENING STROKE TIME
- G. MAIN DISC OPENING STROKE TIME
- H. PILOT STAGE SEAT TIGHTNESS
- I. PILOT STAGE SEAT TIGHTNESS
- J. FLANGED CONNECTION GASKET LEAKAGE
- K. OTHER _____

SRVS

Prepared by: *[Signature]* 1138
Approved by: *[Signature]*

MAINTENANCE ACTIVITY (CONT'D.)

PLANT TICKET #50-458

Page 3 of 4

S/N VALVE SERIAL NUMBER N653810-00-0034

455. OBSERVED 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.

455. Q56.

455. Q55.
- A. ☐ IN SITU (VALVE REMAINS IN PLACE)
 - B. ☐ ON SITE (VALVE IS REMOVED FROM INSTALLATION BUT REMAINS ON PLANT SITE)
 - C. ☒ OFF-SITE

455. Q56.

UNOBSERVED 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.

455. Q56.
- A. ☐ PILOT DISC SEAM (L) OR DAMAGED PISTON RINGS (M/M). DAMAGED DAMAGE TO SEAT(S)
 - B. ☐ FUNCTION MATERIAL (L/M) UN/UNDER SEAT
 - C. ☐ DAMAGE TO TWO STAGE PISTON SET POINT UNIT - BUT DAMAGE RELATED
 - D. ☐ DAMAGED SPRING(S)
 - E. ☐ CASTING DEFECTS
 - F. ☐ OTHER MANUFACTURING DEFECTS
 - G. ☐ IMPROPER ASSEMBLY OR INSTALLATION, MISSING PARTS
 - H. ☐ DAMAGED WASHER(S) (BEYOND NORMAL WEAR)
 - I. ☐ DIAPHRAGM(S) DAMAGED
 - J. ☐ GASKET(S) MOVING BEYOND NORMAL, EXPLODED BEAM
 - K. ☐ BELLOWS DAMAGED, MOVING
 - L. ☐ BROKEN AIR LINE
 - M. ☐ SOLENOID FAILURE
 - N. ☐ FAILURE OF AIR OPERATION ASSEMBLY
 - O. ☐ OTHER (EXPLAIN IN NARRATIVE)
 - P. ☐ NO DAMAGE EXCEPT THAT DIRECTLY RELATING TO FAILURE

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

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

453. CONTRACTOR, LAB, OR VENDOR (CHECK ONE ONLY IF ITEM Q52 IS "C")

- (711) ☒ (MOSBY VALVE & GAGE CO.)
- (816) ☐ BIRKERS
- (824) ☐ BOESSER VALVE
- (802) ☐ GENERAL ELECTRIC CORP.
- (999) ☐ ORAND VALVE (NOT MPPUS CORP.)
- (020) ☐ TARGET ROCK CORP.
- (136) ☐ WYLE LABS
- OTHER: ☐

465. MAINTENANCE/REPAIRING PERFORMED BY (SELECT AS MANY AS APPLICABLE)

- A. ☒ ACTUATION STAGES REPLACED
- B. ☐ TOPWARDS 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 HINGED BURE SIZE INCREASED
- H. ☐ SOLENOID ASSEMBLY REMOVED, REINSTALLED
- I. ☐ REPAIR/REPAIR GASKET(S)
- J. ☐ REPLACE PISTON RINGS(S)
- K. ☐ REPLACE WASHER(S)
- L. ☐ REPLACE DIAPHRAGM(S)
- M. ☐ REPLACE/REPAIR BELLOWS
- N. ☐ REPLACE/REPAIR GASKET(S)
- O. ☐ REPLACE/REPAIR SPRING(S)
- P. ☐ OTHER (EXPLAIN IN NARRATIVE)

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

none

SRVS

MAINTENANCE ACTIVITY (CONT'D.)

PLANT DIRECT # 50-458

PAGE 4 OF 4

S/N VALVE SERIAL NUMBER

N63800-00-0034

470. DETAILS OF MAINTENANCE/REFURBISHING NARRATIVE:

1) AS FOUND stm set pressure passed (1165 psig) info only 2) AS FOUND seat Leakage failed (info only) 3) nozzle/disc insert was relapped, eductor gasket replaced 4) after 2 adjustments, set pressure test sat 5) seat leakage test at 90% - unsat (490 mls) 6) nozzle/disc was relapped, eductor gasket replaced 7) seat leakage test - sat 8) valve shipped 9) nozzle ring as found - 9 AS left - 8 10 Guide ring as found - 403 AS left - 400 10) actuator assembly not refurbished or tested. refurbished and tested on 12/8/94

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

481. TEST REPORT NUMBERS FOR POST REASSEMBLY BENCH TESTS:

4-23-94 stm set pressure #43978-1

4-25-94 stm seat tightness

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

482. 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. A	A	1165-1270	Yes
2. E	H	0 mls	Yes
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____

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

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

7/6/94

1B21XRUF0413

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

495. 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
- I. FLANGED CONNECTION GASKET LEAKAGE
- X. OTHER

A-9

SAFETY RELIEF VALVE LEAKAGE LOG

SRVS

Leakage Log

200. Plant Docket # 50-458

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

	1.	2.	3.	4.	5.
201. S/R Valve Serial Number	N63800-00-0041	N63800-00-0038	N63800-00-0115	N63800-00-0110	N63800-00-0118
202. Component ID (Location)	1B21*RVF047A	1B21*RVF041G	1B21*RVF051C	1B21*RVF041L	1B21*RVF051G
203. Date (Mo/Da/Yr)	10/25/94	10/25/94	10/25/94	11/10/94	12/13/94
204. Time (24 Hour Clock)	08:28	08:28	08:28	22:30	14:40
205. Leakage Determination Method (CODE)	I	I	I	I	I
206. Tailpipe Temp. (°F) (Normal)	159.6	158.4	152.8	164.5	168.1
207. Tailpipe Temp (°F) When Leak Detected	211.5	211.1	211.1	211.8	229.1
208. Other Instrument Type and Units Read IN (CODE)	N/A	N/A	N/A	N/A	N/A
209. Other Instrument Reading	N/A	N/A	N/A	N/A	N/A
210. Reactor Pressure (PSIG)	1025.7	1025.7	1025.7	1024.2	1024.4
211. Reactor Power (% of Full Rated Thermal Power)	100%	100%	100%	100%	100%
212. Comments Attached? (Yes or No)	Yes	Yes	Yes	Yes	Yes

Codes: 205. Leakage Determination Method
 I. Tailpipe Temp > 10° Above Normal
 H. Other Method (Name Here)

208. 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)

SAVS

Leakage Log

200. Plant Docket # 30-458

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.	2.	3.	4.	5.
202. Component ID (Location)	N63800-00-0045	N63800-00-2042	N63800-00-0035	N63800-00-0037	N63800-00-0043
203. Date (Mo/Da/Yr)	1821*RVF047F	1821*RVF047B	1821*RVF041C	1821*RVF041F	1821*RVF047C
204. Time (24 Hour Clock)	8/5/94	8/29/94	10/25/94	10/25/94	10/25/94
205. Leakage Determination Method (CODE)	14:26	11:03	08:28	08:28	08:28
206. Tailpipe Temp. (°F) (Normal)	I	H	I	I	I
207. Tailpipe Temp (°F) When Leak Detected	211.5	211.8	143.8	127.8	158.9
208. Other Instrument Type and Units Read in (CODE)	227.7	216.1	224.8	215.8	224.8
209. Other Instrument Reading	N/A	N/A	N/A	N/A	N/A
210. Reactor Pressure (PSIG)	N/A	N/A	N/A	N/A	N/A
211. Reactor Power (% of full Rated Thermal Power)	1025.1	1026.4	1025.7	1025.7	1025.7
212. Comments Attached? (Yes or No)	100%	100%	100%	100%	100%
	Yes	Yes	Yes	Yes	Yes

Codes:	205. Leakage Determination Method	208. Other Instrument - Type and Units Read in
I.	Tailpipe Temp > 10° Above Normal	A. Acoustic Monitor, Millamps
H.	Other Method (Name Here)	B. Acoustic Monitor, Percent Valve Open
		C. Pressure Sensor, PSIG
		Y. Other (Name Here)

Top Pipe Temperature
72.5°F.

SRVS

Leakage Log

200. Plant Docket # 50-458

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

	1.	2.	3.	4.	5.
201. S/R Valve Serial Number	N63800-00-0044	N63800-00-0117			
202. Component ID (Location)	1B21*RVF047D	1B21*RVF051D			
203. Date (Mo/Da/Yr)	12/13/94	12/13/94			
204. Time (24 Hour Clock)	14:40	14:40			
205. Leakage Determination Method (CODE)	I	I			
206. Tailpipe Temp. (°F) (Normal)	163.2	169.7			
207. Tailpipe Temp (°F) When Leak Detected	225.1	231.4			
208. Other Instrument Type and Units Read IN (CODE)	N/A	N/A			
209. Other Instrument Reading	N/A	N/A			
210. Reactor Pressure (PSIG)	1024.4	1024.4			
211. Reactor Power (% of Full Rated Thermal Power)	100%	100%			
212. Comments Attached? (Yes or No)	Yes	Yes.			

Codes: 205. Leakage Determination Method
 I. Tailpipe Temp > 10° Above Normal
 H. Other Method (Name Here)

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

SRVS

Prepared By: *[Signature]*Approved By: *[Signature]*LEAKAGE LOG OR ACTUATION EVENT
COMMENT SHEETPLANT DOCKET # 50- 458NOTE: DATE AND TIME MUST MATCH THOSE OF REPORT COMMENTED ON.
PLEASE DOUBLE CHECK FOR ACCURACY.

S/V VALVE SERIAL NUMBER:

COMMENT PERTAINS TO:

DATE OF LEAK OR
ACTUATION (MM/DD/YY):TIME OF LEAK OR ACTUATION
(24 HOUR CLOCK):N63800-00-0041LEAKAGE LOG ☒OR ACTUATION EVENT ☐10/25/9408:281B21#RVF047A

COMMENTS: ① MAXIMUM TRILPIPE TEMPERATURE REACHED WAS 229.1°F
 ② This valve had no observed leakage during July, August and September, 1994,
 based on tailpipe temperature data

S/V VALVE SERIAL NUMBER:

COMMENT PERTAINS TO:

DATE OF LEAK OR
ACTUATION (MM/DD/YY):TIME OF LEAK OR ACTUATION
(24 HOUR CLOCK):N63800-00-0043LEAKAGE LOG ☒OR ACTUATION EVENT ☐10/25/9408:281B21#RVF047C

COMMENTS: ① MAXIMUM TRILPIPE TEMPERATURE REACHED WAS 228.9°F
 ② This valve had no observed leakage during July, August and September 1994,
 based on tailpipe temperature data.

S/V VALVE SERIAL NUMBER:

COMMENT PERTAINS TO:

DATE OF LEAK OR
ACTUATION (MM/DD/YY):TIME OF LEAK OR ACTUATION
(24 HOUR CLOCK):N63800-00-0037LEAKAGE LOG ☒OR ACTUATION EVENT ☐10/25/9408:281B21#RVF041F

COMMENTS: ① MAXIMUM TRILPIPE TEMPERATURE REACHED WAS 229.3°F
 ② This valve had no observed leakage during July, August and September,
 1994, based on tailpipe temperature data.

SRVS

Prepared By: *[Signature]*Approved By: *[Signature]*LEAKAGE LOG OR ACTIVATION EVENT
CURRENT SHEET

PLANT DOCKET # 50-41518

NOTE: DATE AND TIME MUST MATCH THOSE OF REPORT COMMENTED ON.
PLEASE DOUBLE CHECK FOR ACCURACY.

S/V VALVE SERIAL NUMBER:

N63800-00-0110

1B21*RVFO41L

COMMENT PERTAINS TO:

LEAKAGE LOG ☒ OR ACTIVATION EVENT ☐DATE OF LEAK OR
ACTIVATION (Mo/Yr/Day):

11/10/94

TIME OF LEAK OR ACTIVATION
(24 HOUR CLOCK):

22:30

COMMENTS: ① MAXIMUM TRILPIPE TEMPERATURE REACHED WAS 228.9 °F

② This valve had no observed leakage during July, August, September and October, 1994, based on tailpipe temperature data

S/V VALVE SERIAL NUMBER:

N63800-00-0115

1B21*RVFO51C

COMMENT PERTAINS TO:

LEAKAGE LOG ☒ OR ACTIVATION EVENT ☐DATE OF LEAK OR
ACTIVATION (Mo/Yr/Day):

10/25/94

TIME OF LEAK OR ACTIVATION
(24 HOUR CLOCK):

08:28

COMMENTS: ① MAXIMUM TRILPIPE TEMPERATURE REACHED WAS 228.6 °F

② This valve had no observed leakage during July, August and September, 1994, based on tailpipe temperature data

S/V VALVE SERIAL NUMBER:

N63800-00-0038

1B21*RVFO41G

COMMENT PERTAINS TO:

LEAKAGE LOG ☒ OR ACTIVATION EVENT ☐DATE OF LEAK OR
ACTIVATION (Mo/Yr/Day):

10/25/94

TIME OF LEAK OR ACTIVATION
(24 HOUR CLOCK):

08:28

COMMENTS: ① MAXIMUM TRILPIPE TEMPERATURE REACHED WAS 228.6 °F

② This valve had no observed leakage during July, August and September, 1994, based on tailpipe temperature data

SRVS

Prepared By: *[Signature]*Approved By: *[Signature]*LEAKAGE LOG OR ACTUATION EVENT
COMMENT SHEETPLANT DOCKET # 50- 4,5,8NOTE: DATE AND TIME MUST MATCH THOSE OF REPORT COMMENTED ON.
PLEASE DOUBLE CHECK FOR ACCURACY.

S/V VALVE SERIAL NUMBER:

COMMENT PERTAINS TO:

DATE OF LEAK OR
ACTUATION (MM/DA/YR):TIME OF LEAK OR ACTUATION
(24 HOUR CLOCK):N63800-00-0118LEAKAGE LOG ☒ OR ACTUATION EVENT ☐12/13/9414:401B21*RVF051G

COMMENTS: ① MAXIMUM tailpipe temperature reached WAS 228.7°F

② DURING SCRAM 94-02, this valve automatically lifted.

③ This valve had no observed leakage during July, August, September, October and November 1994, based on tailpipe temperature data.

S/V VALVE SERIAL NUMBER:

COMMENT PERTAINS TO:

DATE OF LEAK OR
ACTUATION (MM/DA/YR):TIME OF LEAK OR ACTUATION
(24 HOUR CLOCK):N63800-00-0044LEAKAGE LOG ☒ OR ACTUATION EVENT ☐12/13/9414:401B21*RVF047D

COMMENTS: ① MAXIMUM tailpipe temperature reached WAS 222.3°F

② DURING SCRAM 94-02, this valve automatically lifted

③ This valve had no observed leakage during July, August, September, October and November 1994, based on tailpipe temperature data.

S/V VALVE SERIAL NUMBER:

COMMENT PERTAINS TO:

DATE OF LEAK OR
ACTUATION (MM/DA/YR):TIME OF LEAK OR ACTUATION
(24 HOUR CLOCK):N63800-00-0117LEAKAGE LOG ☒ OR ACTUATION EVENT ☐12/13/9414:401B21*RVF051D

COMMENTS: ① MAXIMUM tailpipe temperature reached WAS 235.9°F

② DURING SCRAM 94-02, this valve automatically lifted

③ This valve had no observed leakage during July, August, September, October and November 1994, based on tailpipe temperature data.

SRV5

LEAKAGE LOG OR ACTIVATION EVENT

PLANT DOCKET # 50-41518

Prepared By: [Signature]Approved By: [Signature]NOTE: DATE AND TIME MUST MATCH INDEX OF REPORT CORRELATED ON.
PLEASE DOUBLE CHECK FOR ACCURACY.

S/V VALVE SERIAL NUMBER: N63800-00-0035 COMMENT PERTAINS TO: LEAKAGE LOG ☒ OR ACTIVATION EVENT ☐ DATE OF LEAK OR ACTIVATION (MM/DD/YY): 10/25/94 TIME OF LEAK OR ACTIVATION (24 HOUR CLOCK): 08:28

1821*RVFO41C

COMMENTS: ① maximum tailpipe temperature reached was 229.3°F

② This valve had no observed leakage during July, August and September 1994, based on tailpipe temperature data.

S/V VALVE SERIAL NUMBER: N63800-00-0042 COMMENT PERTAINS TO: LEAKAGE LOG ☒ OR ACTIVATION EVENT ☐ DATE OF LEAK OR ACTIVATION (MM/DD/YY): 8/22/94 TIME OF LEAK OR ACTIVATION (24 HOUR CLOCK): 11:03

1821*RVFO47B

COMMENTS: ① maximum tailpipe temperature reached was 228.9°F

② on 10/25/94 the SRV appeared to RESEAL itself with a tailpipe temperature of 212.9°F. HOWEVER on 12/13/94 after startup from SCENM 94-02, the SRV tailpipe temperature WAS 227.7°F (211.8°F normal).

③ This valve had no leakage during July 1994 based on tailpipe temperature data.

S/V VALVE SERIAL NUMBER: N63800-00-0045 COMMENT PERTAINS TO: LEAKAGE LOG ☒ OR ACTIVATION EVENT ☐ DATE OF LEAK OR ACTIVATION (MM/DD/YY): 8/5/94 TIME OF LEAK OR ACTIVATION (24 HOUR CLOCK): 14:26

1821*RVFO47F

COMMENTS: ① maximum tailpipe temperature reached was 228.7°F

② on 10/25/94 the SRV appeared to RESEAL itself with a tailpipe temperature of 213.9°F. HOWEVER on 12/13/94 after startup from SCENM 94-02, the SRV tailpipe temperature WAS 228.4°F (211.5°F normal).

③ This valve had no leakage during July, 1994, based on tailpipe temperature data.

212.495

SRVS

Prepared By: *[Signature]*Approved By: *[Signature]*LEAKAGE LOG OR ACTUATION EVENT
COMMENT SHEET

PLANT DOCKET # 50- 4518

NOTE: DATE AND TIME MUST MATCH THOSE OF REPORT COMMENTED ON.
PLEASE DOUBLE CHECK FOR ACCURACY.

S/R VALVE SERIAL NUMBER:

COMMENT PERTAINS TO:

DATE OF LEAK OR
ACTUATION (MM/DD/YY):TIME OF LEAK OR ACTUATION
(24 HOUR CLOCK):

N63800-00-0107

LEAKAGE LOG ☒ OR ACTUATION EVENT ☐

N/A

N/A

1B21*RVF041B

COMMENTS: ① This valve exhibited no leakage during 1994, based on tailpipe temperature data. This valve was removed from service on 4/15/94

S/R VALVE SERIAL NUMBER:

COMMENT PERTAINS TO:

DATE OF LEAK OR
ACTUATION (MM/DD/YY):TIME OF LEAK OR ACTUATION
(24 HOUR CLOCK):

N63800-00-0109

LEAKAGE LOG ☒ OR ACTUATION EVENT ☐

N/A

N/A

1B21*RVF041C

COMMENTS: ① This valve exhibited no leakage during 1994, based on tailpipe temperature data. This valve was removed from service on 4/15/94

S/R VALVE SERIAL NUMBER:

COMMENT PERTAINS TO:

DATE OF LEAK OR
ACTUATION (MM/DD/YY):TIME OF LEAK OR ACTUATION
(24 HOUR CLOCK):

N63800-00-0077

LEAKAGE LOG ☒ OR ACTUATION EVENT ☐

N/A

N/A

1B21*RVF047A

COMMENTS: ① This valve exhibited no leakage during 1994, based on tailpipe temperature data. This valve was removed from service on 4/15/94

SRVS

LEAKAGE LOG OR ACTIVATION EVENT

PLANT DOCKET # 50-41518

Prepared By: *[Signature]*Approved By: *[Signature]*NOTE: DATE AND TIME MUST MATCH INDEX OF REPORT COMMENTED ON.
PLEASE DOUBLE CHECK FOR ACCURACY.

S/V VALVE SERIAL NUMBER: N6380-00-0111 ; CURRENT PERTAINS TO: LEAKAGE LOG ☒ OR ACTIVATION EVENT ☐ ; DATE OF LEAK OR ACTIVATION (MM/DD/YY): N/A ; TIME OF LEAK OR ACTIVATION (24 HOUR CLOCK): N/A

1821X RVFO 41G

COMMENTS: ① This valve exhibited no leakage during 1994, based on tailpipe temperature data. This valve was removed from service on 4/15/94

S/V VALVE SERIAL NUMBER: N6380-00-0081 ; CURRENT PERTAINS TO: LEAKAGE LOG ☒ OR ACTIVATION EVENT ☐ ; DATE OF LEAK OR ACTIVATION (MM/DD/YY): N/A ; TIME OF LEAK OR ACTIVATION (24 HOUR CLOCK): N/A

1821X RVFO 47D

COMMENTS: ① This valve exhibited no leakage during 1994, based upon tailpipe temperature data. This valve was removed from service on 4/15/94

S/V VALVE SERIAL NUMBER: N6380-00-0123 ; CURRENT PERTAINS TO: LEAKAGE LOG ☒ OR ACTIVATION EVENT ☐ ; DATE OF LEAK OR ACTIVATION (MM/DD/YY): N/A ; TIME OF LEAK OR ACTIVATION (24 HOUR CLOCK): N/A

1821X RVFO 51B

COMMENTS: ① This valve exhibited no leakage during 1994, based upon tailpipe temperature data. This valve was removed from service on 4/15/94

SRVS

Prepared by:

W. S. Burch

Approved by:

*W. S. Burch*LEAKAGE LOG OR ACTIVATION EVENT
CURRENT SHEET

PLANT DOCKET # 50- 4518

NOTE: DATE AND TIME MUST MATCH INDEX OF REPORT COMMENTED ON.
PLEASE DOUBLE CHECK FOR ACCURACY.

S/V VALVE SERIAL NUMBER:

N63800-00-0046

1B21*RVFO51B

CURRENT PERTAINS TO:

LEAKAGE LOG ☒OR ACTIVATION EVENT ☐DATE OF LEAK OR
ACTIVATION (Mo/Yr/Day):

N/A

TIME OF LEAK OR ACTIVATION
(24 HOUR CLOCK):

N/A

COMMENTS: ① This valve exhibited no leakage during 1994, based on tailpipe
temperature data.

S/V VALVE SERIAL NUMBER:

N63800-00-0033

1B21*RVFO41A

CURRENT PERTAINS TO:

LEAKAGE LOG ☐OR ACTIVATION EVENT ☐DATE OF LEAK OR
ACTIVATION (Mo/Yr/Day):TIME OF LEAK OR ACTIVATION
(24 HOUR CLOCK):COMMENTS: ① This valve exhibited no leakage during 1994, based on tailpipe
temperature data.

S/V VALVE SERIAL NUMBER:

N63800-00-0036

1B21*RVFO41D

CURRENT PERTAINS TO:

LEAKAGE LOG ☐OR ACTIVATION EVENT ☐DATE OF LEAK OR
ACTIVATION (Mo/Yr/Day):TIME OF LEAK OR ACTIVATION
(24 HOUR CLOCK):COMMENTS: ① This valve exhibited no leakage during 1994, based on tailpipe
temperature data.

SRVS

LEAKAGE LOG OR ACTIVATION EVENT

PLANT DOCKET # 50-14518

Prepared By: *[Signature]*Approved By: *[Signature]*NOTE: DATE AND TIME MUST MATCH INSIDE OF REPORT COMMENTED ON.
PLEASE DOUBLE CHECK FOR ACCURACY.

S/V VALVE SERIAL NUMBER:

No 3800-00-0034

1B31X RUFO 41B

COMMENT PERTAINS TO:

LEAKAGE LOG ☒OR ACTIVATION EVENT ☐DATE OF LEAK OR
ACTIVATION (Mo/Yr/Day):

4/8

TIME OF LEAK OR ACTIVATION
(24 HOUR CLOCK):

4/8

COMMENTS: *This valve exhibited no leakage during 1994, based on tailpipe
temperature data.*

S/V VALVE SERIAL NUMBER:

COMMENT PERTAINS TO:

LEAKAGE LOG ☐OR ACTIVATION EVENT ☐DATE OF LEAK OR
ACTIVATION (Mo/Yr/Day):TIME OF LEAK OR ACTIVATION
(24 HOUR CLOCK):

COMMENTS:

NOT USED

S/V VALVE SERIAL NUMBER:

COMMENT PERTAINS TO:

LEAKAGE LOG ☐OR ACTIVATION EVENT ☐DATE OF LEAK OR
ACTIVATION (Mo/Yr/Day):TIME OF LEAK OR ACTIVATION
(24 HOUR CLOCK):

COMMENTS:

NOT USED

SAFETY RELIEF VALVE ACTUATION EVENTS

SRVS

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, SPURIOUS)
 E. MANUAL RELIEF
307. REACTOR OPERATING CONDITION (SELECT ONE ONLY)
 Prior to Lift
 A. CONSTRUCTION
 B. PREOPERATIONAL STARTUP OR POWER
 C. ASCENSION TESTS IN PROGRESS
 D. ROUTINE STARTUP
 E. ROUTINE SHUTDOWN
 F. STEADY STATE OPERATION
 G. LOAD CHANGES DURING ROUTINE OPERATION
 H. SHUTDOWN (Hot or Cold) EXCEPT REFUELLING
 I. REFUELLING

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 FAILURE OCCURRED - NO SRVS REPORT REQUIRED
 D. LER SUBMITTED - GIVE LER NUMBER IN ITEM 316
 E. REPAIRS WILL BE SUBMITTED

SRVS

Prepared By: FFH/MLX 1138Approved By: W.B. Buel

ACTUATION EVENTS

300. PLANT DOCKET # 50- 41518

NOTE: INCLUDES ALL IN-SITU TESTS.

FOR EACH ACTUATION
OR FAILURE TO ACTUATE:

	1.	2.	3.	4.	5.
301. S/R VALVE SERIAL NUMBER	N63800-00-0033	N63800-00-0034	N63800-00-0035	N63800-00-0036	N63800-00-0037
302. COMPONENT ID (LOCATION)	1B21*RVFO41A	1B21*RVFO41B	1B21*RVFO41C	1B21*RVFO41D	1B21*RVFO41F
303. DATE OF ACTUATION (Mo/Da/Yr)	7/2/94	7/2/94	7/2/94	7/2/94	7/2/94
304. TIME OF DAY (24 HOUR CLOCK)	15:46	15:12	14:04	13:09	14:41
305. TYPE OF ACTUATION (CODE)	B	B	B	B	B
306. CAUSE/REASON FOR ACTUATION (CODE)	C	C	C	C	C
307. RX OPERATING CONDITION PRIOR TO LIFT (CODE)	C	C	C	C	C
308. RX POWER LEVEL PRIOR TO LIFT (IS RATED (NORMAL))	10%	10%	10%	10%	10%
309. Time Req'd for Tailpipe Temp to Return to Normal	see comments	see comments	see comments	see comments	see comments
310. OTHER INSTRUMENTATION - TYPE (CODE)	A	A	A	A	A
311. OTHER INSTRUMENTATION - OTHER. READING AND UNITS.	N/A	N/A	N/A	N/A	N/A
312. RX PRESSURE PRIOR TO ACTUATION (PSIG)	900	900	900	900	900
IF AVAILABLE/II APPLICANT					
313. RESET PRESSURE AT VALVE CLOSURE (PSIG)	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE
314. DURATION OF THIS ACTUATION (MINUTES:SECONDS)	1:11	1:24	1:24	1:46	1:25
315. FAILURES, REPORTS (CODE)	C	C	C	C	C
316. LER NUMBER (5 DIGIT NUMBER)	N/A	N/A	N/A	N/A	N/A
317. COMMENTS REGARDING THIS ACTUATION ATTACHED? (YES OR NO)	Yes	Yes	Yes	Yes	Yes

NOTE: INCLUDES ALL IN-SITU TESTS.

FOR EACH ACTUATION
OR FAILURE TO ACTUATE:

	1.	2.	3.	4.	5.
301. S/R VALVE SERIAL NUMBER	NK3800-00-0038	NK3800-00-0110	NK3800-00-0041	NK3800-00-0042	NK3800-00-0043
302. COMPONENT ID (LOCATION)	1821XRUVF041B	1821XRUVF041L	1821XRUVF047A	1821XRUVF047B	1821XRUVF047C
303. DATE OF ACTUATION (Mo/Da/Yr)	7/2/94	7/2/94	7/2/94	7/2/94	7/2/94
304. TIME OF DAY (24 HOUR CLOCK)	15:57	16:05	12:56	16:14	13:56
305. TYPE OF ACTUATION (CODE)	B	B	B	B	B
306. CAUSE/REASON FOR ACTUATION (CODE)	C	C	C	C	C
307. IN OPERATIONS CONDITION PRIOR TO LIFT (CODE)	C	C	C	C	C
308. IN POWER LEVEL PRIOR TO LIFT (L RATED NORMAL)	100%	100%	100%	100%	100%
309. TIME REQ'D FOR TELLPIPE TEMP TO RETURN TO NORMAL	see comments	see comments	see comments	see comments	see comments
310. OTHER INSTRUMENTATION - TYPE (CODE)	A	A	A	A	A
311. OTHER INSTRUMENTATION - NUMBER, READINGS AND UNITS.	N/A	N/A	N/A	N/A	N/A
312. IN PRESSURE PRIOR TO ACTUATION (PSIG)	900	900	900	900	900
IF AVAILABLE L/H ATTACH					
313. RESET PRESSURE AT VALVE CLOSURE (PSIG)	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE
314. DURATION OF THIS ACTUATION (MINUTES:SECONDS)	0:21	0:17	3:07	0:34	1:51
315. FAILURES, REPORTS (CODE)	C	C	C	C	C
316. IIR NUMBER (5 DIGIT NUMBER)	N/A	N/A	N/A	N/A	N/A
317. COMMENTS EXPLAINING THIS ACTUATION ATTACHED (YES OR NO)	Yes	Yes	Yes	Yes	Yes

NOTE: INCLUDES ALL IN-SITU TESTS.

FOR EACH ACTUATION
OR FAILURE TO ACTUATE:

	1.	2.	3.	4.	5.
301. S/R VALVE SERIAL NUMBER	N63800-00-0044	N63800-00-0045	N63800-00-0046	N63800-00-0115	N63800-00-0117
302. COMPONENT ID (LOCATION)	1B21*RVFO47D	1B21*RVFO47F	1B21*RVFO51B	1B21*RVFO51C	1B21*RVFO51D
303. DATE OF ACTUATION (Mo/Da/Yr)	7/2/94	7/2/94	7/2/94	7/2/94	7/2/94
304. TIME OF DAY (24 HOUR CLOCK)	16:43	16:51	17:21	17:38	17:42
305. TYPE OF ACTUATION (CODE)	B	B	B	B	B
306. CAUSE/REASON FOR ACTUATION (CODE)	C	C	C	C	C
307. RX OPERATING CONDITION PRIOR TO LIFT (CODE)	C	C	C	C	C
308. RX POWER LEVEL PRIOR TO LIFT (% RATED (MANUAL))	10%	100%	100%	10%	10%
309. Time Req'd for Tailpipe Temp to Return to Normal	see comments	see comments	see comments	see comments	see comments
310. OTHER INSTRUMENTATION - TYPE (CODE)	A	A	A	A	A
311. OTHER INSTRUMENTATION - OTHER. READING AND UNITS.	N/A	N/A	N/A	N/A	N/A
312. RX PRESSURE PRIOR TO ACTUATION (PSIG)	900	900	900	900	900
IF AVAILABLE/IF AVAILABLE:					
313. RESET PRESSURE AT VALVE CLOSURE (PSIG)	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE
314. DURATION OF THIS ACTUATION (MINUTES:SECONDS)	0:22	0:26	0:32	0:27	0:29
315. FAILURES, REPORTS (CODE)	C	C	C	C	C
316. LER NUMBER (5 DIGIT NUMBER)	N/A	N/A	N/A	N/A	N/A
317. COMMENTS REGARDING THIS ACTUATION ATTACHED? (YES OR NO)	Yes	Yes	Yes	Yes	Yes

FOR EACH ACTIVATION

OR FAILURE TO ACTIVATE:

NOTE: INCLUDES ALL IN-SITU TESTS.

301. S/V VALVE SERIAL NUMBER	1.	2.	3.	4.	5.
302. COMPONENT ID (LOCATION)	N63800-00-0118				
303. DATE OF ACTIVATION (Mo/Day/Yr)	1821XRUF051G				
304. TIME OF DAY (24 HOUR CLOCK)	7/2/94				
305. TYPE OF ACTIVATION (CODE)	13:24				
306. CAUSE/REASON FOR ACTIVATION (CODE)	B				
307. EX OPERATING CONDITION PRIOR TO LIFT (CODE)	C				
308. EX PRESSURE LEVEL PRIOR TO LIFT (G/GAUGES INTERNAL)	C				
309. TIME REQ'D FOR TELLPIPE TEMP TO RETURN TO NORMAL	10070				
310. OTHER INSTRUMENTATION - TYPE (CODE)	see comments				
311. OTHER INSTRUMENTATION - NUMBER, READINGS AND UNITS.	A				
312. EX PRESSURE PRIOR TO ACTIVATION (PSIG)	N/A				
IF AVAILABLE L/16 ATTACHMENT	900				
313. RE SEAT PRESSURE AT VALVE CLOSURE (PSIG)	NOT AVAILABLE				
314. DURATION OF THIS ACTIVATION (NUMBER: SECONDS)	1:41				
315. FAILURES, REPORTS (CODE)	C				
316. IER NUMBER (5 DIGIT NUMBER)	N/A				
317. COMMENTS REGARDING THIS ACTIVATION ATTACHED?	Yes				

NOT USED

NOT USED

SRVS

Prepared By: W. J. Smith 1138LEAKAGE LOG OR ACTIVATION EVENT
CURRENT SHEET

PLANT DOCKET # 50-1415181

Approved By: W. J. SmithNOTE: DATE AND TIME MUST MATCH THOSE OF REPORT COMMENTED ON.
PLEASE DOUBLE CHECK FOR ACCURACY.

S/V VALVE SERIAL NUMBER:

N63800-00-0033

1B21*RVFO41A

COMMENT PERTAINS TO:

LEAKAGE LOG ☐OR ACTIVATION EVENT ☒DATE OF LEAK OR
ACTIVATION (MM/DD/YY):

7/2/94

TIME OF LEAK OR ACTIVATION
(24 HOUR CLOCK):

10:28-21:30

COMMENTS: Operability test IAW Tech Specs and Inservice Test Requirements
per STP-202-0602 at 100% power; test set"309" - temperatures were not monitored individually - all sump temperatures returned
to normal after lift.

S/V VALVE SERIAL NUMBER:

N63800-00-0034

1B21*RVFO41B

COMMENT PERTAINS TO:

LEAKAGE LOG ☐OR ACTIVATION EVENT ☒DATE OF LEAK OR
ACTIVATION (MM/DD/YY):

7/2/94

TIME OF LEAK OR ACTIVATION
(24 HOUR CLOCK):

10:28-21:30

COMMENTS: Operability test IAW Tech Specs and Inservice Test Requirements per
STP-202-0602 at 100% power; test set"309" - temperatures were not monitored individually - all sump temperatures
returned to normal after lift.

S/V VALVE SERIAL NUMBER:

N63800-00-0035

1B21*RVFO41C

COMMENT PERTAINS TO:

LEAKAGE LOG ☐OR ACTIVATION EVENT ☒DATE OF LEAK OR
ACTIVATION (MM/DD/YY):

7/2/94

TIME OF LEAK OR ACTIVATION
(24 HOUR CLOCK):

10:28-21:30

COMMENTS: Operability test IAW Tech Specs and Inservice Test Requirements per
STP-202-0602 at 100% power; test set"309" - temperatures were not monitored individually - all sump temperatures
returned to normal after lift.

CANVS

Prepared By: [Signature]

LEAKAGE LOG OR ACTIVATION EVENT

PLANT DOCKET # 50-141518

Approved By: [Signature]

NOTE: DATE AND TIME MUST MATCH THOSE OF REPORT COMMENTED ON.
PLEASE DOUBLE CHECK FOR ACCURACY.

S/S VALVE SERIAL NUMBER: N63800-0036
LEAKAGE LOG ☐ OR ACTIVATION EVENT ☒ DATE OF LEAK OR ACTIVATION (MM/DD/YY): 7/2/94 TIME OF LEAK OR ACTIVATION (24 HOUR CLOCK): 10:28-21:30
COMMENTS: ① Operability test IAW Tech Specs and Inservice Test Program Requirements per STP-202-0602 at 100% power; test sat
② "309" - temperatures were not monitored individually - all tailpipe temperatures returned to normal after lift.

S/S VALVE SERIAL NUMBER: N63800-0037
LEAKAGE LOG ☐ OR ACTIVATION EVENT ☒ DATE OF LEAK OR ACTIVATION (MM/DD/YY): 7/2/94 TIME OF LEAK OR ACTIVATION (24 HOUR CLOCK): 10:28-21:30
COMMENTS: ① Operability test IAW Tech Specs and Inservice Test Program Requirements per STP-202-0602 at 100% power; test sat
② "309" - temperatures were not monitored individually - all tailpipe temperatures returned to normal after lift.

S/S VALVE SERIAL NUMBER: N63800-0038
LEAKAGE LOG ☐ OR ACTIVATION EVENT ☒ DATE OF LEAK OR ACTIVATION (MM/DD/YY): 7/2/94 TIME OF LEAK OR ACTIVATION (24 HOUR CLOCK): 10:28-21:30
COMMENTS: ① Operability test IAW Tech Specs and Inservice Test Program Requirements per STP-202-0602 at 100% power; test sat
② "309" - temperatures were not monitored individually - all tailpipe temperatures returned to normal after lift.

DOCKET # 50-458

Approved: *[Signature]*
JAM

NOTE: DATE AND TIME MUST MATCH INDEX OF RETURN COMPONENTS ON.
PLEASE SIGNATURE CHECK FOR ACCURACY.

LINE OF LEAD ON REVERSE
OF THIS CARD.

③ "309." - temperatures were not monitored individually, - all tailpipe temperatures returned to normal after lift.

TIME OF LEASE ON ACTIVITY

① Openability Test IAW Tech Specs and Inservio Test Program Requirements per STP-202-0602 at 100% power; test sat

② "309." - temperatures were not monitored individually - all tailpipe temperatures returned to normal after lift.

Time of LEAS on Activation
120 hours (100%):

① Openability Test IAW Tech Specs and Inservice Test Program Requirements per STP-202-0602 at 10% power; test sat

② "309" temperatures were not monitored individually - all tubing temperatures returned to normal after shift.

SRVS

Prepared By:

JH 1138

Approved By:

S. B. B. B.

LEAKAGE LOG OR ACTUATION EVENT
CONSENT SHEET

PLANT DOCKET # 50- 4, 5, 8

NOTE: DATE AND TIME MUST MATCH THOSE OF REPORT COMMENTED ON.
PLEASE DOUBLE CHECK FOR ACCURACY.

S/V VALVE SERIAL NUMBER:

COMMENT PERTAINS TO:

DATE OF LEAK OR
ACTUATION (MM/DD/YY):TIME OF LEAK OR ACTUATION
(24 HOUR CLOCK):

N63800-00-0043

LEAKAGE LOG ☐OR ACTUATION EVENT ☒

7/2/94

10:28 - 21:30

1B21*RVF047C

COMMENTS: ① Operability Test IAW Tech Specs and Inservice Test Program Requirements per STP-202-0602 at 100% power; test SAT

② "309." temperatures were not monitored individually - all tailpipe temperatures returned to normal after lift.

S/V VALVE SERIAL NUMBER:

COMMENT PERTAINS TO:

DATE OF LEAK OR
ACTUATION (MM/DD/YY):TIME OF LEAK OR ACTUATION
(24 HOUR CLOCK):

N63800-00-0044

LEAKAGE LOG ☐OR ACTUATION EVENT ☒

7/2/94

10:28 - 21:30

1B21*RVF047D

COMMENTS: ① Operability Test IAW Tech Specs and Inservice Test Program Requirements per STP-202-0602 at 100% power; test SAT

② "309." - temperatures were not monitored individually - all tailpipe temperatures returned to normal after lift.

S/V VALVE SERIAL NUMBER:

COMMENT PERTAINS TO:

DATE OF LEAK OR
ACTUATION (MM/DD/YY):TIME OF LEAK OR ACTUATION
(24 HOUR CLOCK):

N63800-00-0045

LEAKAGE LOG ☐OR ACTUATION EVENT ☒

7/2/94

10:28 - 21:30

1B21*RVF047F

COMMENTS: ① Operability Test IAW Tech Specs and Inservice Test Program Requirements per STP-202-0602 at 100% power; test SAT

② "309." - temperatures were not monitored individually - all tailpipe temperatures returned to normal after lift.

SRVS

Prepared By: SA [Signature]Approved By: SA [Signature]LEAKAGE LOG OR ACTIVATION EVENT
CURRENT SHEET

PLANT BOCKET # 50- [4518]

NOTE: DATE AND TIME MUST MATCH INSIDE OF REPORT COVERED ON.
PLEASE DOUBLE CHECK FOR ACCURACY.

S/V VALVE SERIAL NUMBER:

N63800-00-0046

1821*RVFO51B

CURRENT PERTAINS TO:

LEAKAGE LOG ☐OR ACTIVATION EVENT ☒DATE OF LEAK OR
ACTIVATION (Mo/Yr/Day):

7/2/94

TIME OF LEAK OR ACTIVATION
(24 HOUR CLOCK):

10:28 - 21:30

COMMENTS: ① Operability Test IAW Tech Specs and Snovice Test Program Requirements

per STP-202-0602 at 100% power; test sat

② "309" - temperatures were not monitored individually - all tailpipe temperatures returned to normal after lift.

S/V VALVE SERIAL NUMBER:

N63800-00-0115

1821*RVFO51C

CURRENT PERTAINS TO:

LEAKAGE LOG ☐OR ACTIVATION EVENT ☒DATE OF LEAK OR
ACTIVATION (Mo/Yr/Day):

7/2/94

TIME OF LEAK OR ACTIVATION
(24 HOUR CLOCK):

10:28 - 21:30

COMMENTS: ① Operability Test IAW Tech Specs and Snovice Test Program Requirements
per STP-202-0602 at 100% power; test sat

② "309" - temperatures were not monitored individually - all tailpipe temperatures returned to normal after lift.

S/V VALVE SERIAL NUMBER:

N63800-00-0117

1821*RVFO51D

CURRENT PERTAINS TO:

LEAKAGE LOG ☐OR ACTIVATION EVENT ☒DATE OF LEAK OR
ACTIVATION (Mo/Yr/Day):

7/2/94

TIME OF LEAK OR ACTIVATION
(24 HOUR CLOCK):

10:28 - 21:30

COMMENTS: ① Operability Test IAW Tech Specs and Snovice Test Program Requirements
per STP-202-0602 at 100% power; test sat

② "309" - temperatures were not monitored individually - all tailpipe temperatures returned to normal after lift.

SRVS

Prepared By: *[Signature]*

138

LEAKAGE LOG OR ACTIVATION EVENT
CURRENT SHEET

PLANT DOCKET # 50- 41518

Approved By: *[Signature]*

NOTE:

DATE AND TIME MUST MATCH THOSE OF REPORT CORRELATED ON.
PLEASE DOUBLE CHECK FOR ACCURACY.

S/V VALVE SERIAL NUMBER:

N63800-00-0118

1821 * RVF051G

CURRENT PERTAINS TO:

LEAKAGE LOG ☐OR ACTIVATION EVENT ☒DATE OF LEAK OR
ACTIVATION (MM/DD/YY):

7/2/94

TIME OF LEAK OR ACTIVATION
(24 HOUR CLOCK):

10:28 - 21:30

COMMENTS:

Openability Test ISW Test Spec and Inservice Test Program Requirement
per STP-202-2682 at 100% power; test SAT
② "309" - Temperatures were not monitored individually - all package
Temperatures returned to normal after lift.

S/V VALVE SERIAL NUMBER:

CURRENT PERTAINS TO:

LEAKAGE LOG ☐OR ACTIVATION EVENT ☐DATE OF LEAK OR
ACTIVATION (MM/DD/YY):TIME OF LEAK OR ACTIVATION
(24 HOUR CLOCK):

COMMENTS:

S/V VALVE SERIAL NUMBER:

CURRENT PERTAINS TO:

LEAKAGE LOG ☐OR ACTIVATION EVENT ☐DATE OF LEAK OR
ACTIVATION (MM/DD/YY):TIME OF LEAK OR ACTIVATION
(24 HOUR CLOCK):

COMMENTS:

NOT

USED

SAVS

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

CODES:

305. TYPE OF ACTIVATION (SELECT ONE)
 A. AUTOMATIC
 B. REMOTE MANUAL
 C. SPRING
306. CAUSE/REASON FOR ACTIVATION (SELECT ONE)
 A. OVERPRESSURE
 B. ADS OR OTHER SAFETY
 C. TEST
 D. INADVERTENT (ACCIDENTAL, SPURIOUS)
 E. MANUAL RELIEF
307. REACTOR OPERATING CONDITION (SELECT ONE ONLY)
 PRIOR TO LIFT
 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 DEFUELING
 H. DEFUELING

310. OTHER INSTRUMENT TYPE
 (SELECT ONE ONLY IF APPLICABLE)
 A. ACOUSTIC MONITOR
 B. PRESSURE SENSOR
 X. OTHER process computer point: Pressure
C33NA001 - Steam Dome Pressure
 XX. OTHER ERIS computer points
C33EA028 - Reactor Pressure,
Narrow Range,
C33EA014 - 017 - mSLSTM Flow
315. FAILURES-REPORTS (SELECT AS MANY AS APPLICABLE)
 A. FAILURE OF ELECTRICAL OR OTHER COMPONENTS
 NOT CONSIDERED PART OF VALVE ASSEMBLY -
 NO SAVS FAILURE REPORT IS REQUIRED
 B. FAILURE OF ANY PART OF VALVE ASSEMBLY -
 SAVS FAILURE REPORT WILL BE FILED
 C. NO FAILURES OCCURRED - NO SAVS REPORT REQUIRED
 D. LER SUBMITTED - GIVE LER NUMBER IN ITEM 316
 E. OTHERS WILL BE SUBMITTED

NOTE: INCLUDES ALL IN-SITU TESTS.

FOR EACH ACTIVATION
OR FAILURE TO ACTIVATE:

	1.	2.	3.	4.	5.
301. S/V VALVE SERIAL NUMBER	N63800-20-0118	N63800-20-0042	N63800-20-0110	N63800-20-0117	N63800-20-0115
302. COMPONENT ID (LOCATION)	1821*RVFO51G	1821*RVFO47B	1821*RVFO41L	1821*RVFO51D	1821*RVFO51C
303. DATE OF ACTIVATION (Mo/Day/Yr)	09/08/94	09/08/94	09/08/94	09/08/94	09/08/94
304. TIME OF DAY (24 HOUR CLOCK)	20:45	20:50	20:56	21:02	21:02
305. TYPE OF ACTIVATION (CODE)	B	B	B	A	A
306. CAUSE/REASON FOR ACTIVATION (CODE)	E	E	E	A	A
307. IN OPERATING CONDITION PRIOR TO LIFT (CODE)	E	E	E	E	E
308. IN POWER LEVEL PRIOR TO LIFT (IF DATED INTERNAL)	100%	100%	100%	100%	100%
309. TIME REQ'D FOR TAILPIPE TEMP TO RETURN TO NORMAL	SEE COMMENTS	SEE COMMENT	SEE COMMENT	SEE COMMENT	SEE COMMENT
310. OTHER INSTRUMENTATION - TYPE (CODE)	X	X	X	X	X
311. OTHER INSTRUMENTATION - SERIAL, ACTIONS AND RESULTS.	N/A	N/A	N/A	N/A	N/A
312. IN PRESSURE PRIOR TO ACTIVATION (PSIG)	1064	1071 1064 1045	1097	1107	1107
IF AVAILABLE (1/H APPH) (1/H)					
313. SEAT PRESSURE AT VALVE CLOSURE (PSIG)	895	893	888	943	953
314. DURATION OF THIS ACTIVATION (MINUTES:SECONDS)	1:53	1:49	1:43	00:10	00:07
315. FAILURES, REPORTS (CODE)	C	C	C	C	C
316. 1/2 DAY BURDEN (5 DAY BURDEN)	N/A	N/A	N/A	N/A	N/A
317. COMMENTS REGARDING THIS ACTIVATION ATTEMPT (YES OR NO)	Yes	Yes	Yes	Yes	Yes

NOTE: INCLUDES ALL IN-SITU TESTS.

FOR EACH ACTUATION
 OR FAILURE TO ACTUATE:

	1.	2.	3.	4.	5.
301. S/V VALVE SERIAL NUMBER	NK3800-00-0037	NK3800-00-0117	NK3800-00-0117	NK3800-00-0117	NK3800-00-0115
302. COMPONENT ID (LOCATION)	1831*RUFO 4IF	1831*RUFO 5ID	1831*RUFO 5ID	1831*RUFO 5ID	1821*RUFO 5IC
303. DATE OF ACTUATION (Mo/Da/Yr)	09/08/94	09/08/94	09/08/94	09/08/94	09/08/94
304. TIME OF DAY (24 HOUR CLOCK)	21:02	21:16	21:22	21:30	21:30
305. TYPE OF ACTUATION (CODE)	B	A	A	A	A
306. CAUSE/REASON FOR ACTUATION (CODE)	E	A	A	A	A
307. IN OPERATING CONDITION PRIOR TO LIFT (CODE)	E	E	E	E	E
308. IN POWER LEVEL PRIOR TO LIFT (IF RATED NORMAL)	100%	100%	100%	100%	100%
309. Time Req'd for Tailpipe Temp to Return to Normal	see comments	see comments	see comments	see comments	see comments
310. OTHER INSTRUMENTATION - TYPE (CODE)	X	X	X	X	X
311. OTHER INSTRUMENTATION - NUMBER, READINGS AND UNITS.	N/A	N/A	N/A	N/A	N/A
312. IN PRESSURE PRIOR TO ACTUATION (PSIG)	1107	1039	1039	1108	1108
IF AVAILABLE/HI WITH FLAME					
313. RELEASE PRESSURE AT VALVE CLOSURE (PSIG)	809	941	943	942	952
314. DURATION OF THIS ACTUATION (MINUTES:SECONDS)	1:46	00:43	00:44	00:23	00:16
315. FAILURES, REPORTS (CODE)	C	C	C	C	C
316. IER NUMBER (5 DIGIT NUMBER)	N/A	N/A	N/A	N/A	N/A
317. COMMENTS REGARDING THIS ACTUATION ATTACHED? (YES OR NO)	Yes	Yes	Yes	Yes	Yes

ACTIVATION EVENTS

300. PLANT DICKET # 50-4518

51831 0015-001 TV SCREENING : 31000

FOR EACH ACTIVATION

on failure to activate:

FOR EACH ACTUATION					1.	2.	3.	4.	5.
OR FAILURE TO ACTUATE:									
301.	S/V VALVE SERIAL NUMBER				N63800-00-0046	N63800-00-0117	N63800-00-0118	N63800-00-0117	
302.	COMPONENT ID (LOCATION)				1831*RVFO51B	1831*RVFO51D	1831*RVFO51G	1831*RVFO51G	1831*RVFO51D
303.	DATE OF ACTUATION (Mo/Da/Yr)				09/08/94	09/08/94	09/08/94	10/21/94	12/04/94
304.	TIME OF DAY (24 HOUR CLOCK)				21:33	22:55	23:48	09:53	19:58
305.	TYPE OF ACTUATION (CODE)				B	A	B	B	A
306.	CAUSE/REASON FOR ACTUATION (CODE)				E	A	E	C	A
307.	IN OPERATING CONDITION PRIOR TO LIFT (CODE)				E	E	E	E	E
308.	IN POWER LEVEL PRIOR TO LIFT (1 = RATED MAXIMUM)				100%	100%	100%	100%	100%
309.	TIME REQ'D FOR TAILPIPE TEMP TO RETURN TO NORMAL				SEE COMMENT	SEE COMMENT	SEE COMMENT	SEE COMMENT	SEE COMMENT
310.	OTHER INSTRUMENTATION - TYPE (CODE)				X	X	X	A	X X X
311.	OTHER INSTRUMENTATION - NUMBER, READINGS AND UNITS.				N/A	N/A	N/A	N/A	N/A
312.	IN PRESSURE PRIOR TO ACTUATION (PSIG)				1005	1039	1036	960	1090
IF AVAILABLE/IN APPLICABLE									
313.	DESEAT PRESSURE AT VALVE CLOSURE (PSIG)				594	910	854	NOT AVAILABLE	942
314.	DURATION OF THIS ACTUATION (MINUTES:SECONDS)				4:24	1:36	1:48	1:30	0:16
315.	FAILURE(S), REPAIR(S) (CODE)				C	C	C	C	C
316.	IF A NUMBER (5 DIGIT NUMBER)				N/A	N/A	N/A	N/A	N/A
317.	COMMENTS REGARDING THIS ACTUATION/FAILURE? (YES OR NO)				Yes	Yes	Yes	Yes	Yes

NOTE: INCLUDES ALL IN-SITU TESTS.

FOR EACH ACTIVATION OR FAILURE TO ACTIVATE:		1.	2.	3.	4.	5.
301. S/W VALVE SERIAL NUMBER		N63800-00-0115	N63800-00-0046	N63800-00-0045	N63800-00-0118	N63800-00-0042
302. COMPONENT ID (LOCATION)		1821XRVFO 51C	1821XRVFO 51B	1821XRVFO 47F	1821XRVFO 51G	1821XRVFO 47D
303. DATE OF ACTIVATION (Mo./Day/Yr)		12/04/94	12/04/94	12/04/94	12/04/94	12/04/94
304. TIME OF DAY (24 HOUR CLOCK)		19:58	19:58	19:59	20:00	20:02
305. TYPE OF ACTIVATION (CODE)		A	B	B	B	B
306. CAUSE/REASON FOR ACTIVATION (CODE)		A	E	E	E	E
307. IN OPERATING CONDITION Prior to Lift (CODE)		E	E	E	E	E
308. IN POWER LEVEL PRIOR to lift (BATES NUMBER)		100%	100%	100%	100%	100%
309. Time Req'd for Tailpipe Temp to Return to Normal		see comment	see comment	see comment	see comment	see comment
310. OTHER INSTRUMENTATION - Type (CODE)		XX, X	XX, X	XX, X	XX, X	XX, X
311. OTHER INSTRUMENTATION - Power, Pressure and Units.		N/A	N/A	N/A	N/A	N/A
312. IN PRESSURE PRIOR to Activation (PSIG)		1090	1005 1090	958	915	950
IF AVAILABLE/HI UTILIZATION						
313. IN SEAT PRESSURE AT VALVE CLOSURE (PSIG)		958	890	912	878	870
314. Duration of THIS ACTIVATION (Minutes:Seconds)		0:14	0:54	0:15	0:27	1:03
315. FAILURES, REPORTS (CODE)		C	C	C	C	C
316. IER NUMBER (S DOCT NUMBER)		N/A	N/A	N/A	N/A	N/A
317. COMMENTS REGARDING THIS ACTIVATION ATTACHED? (YES OR NO)		Yes	Yes	Yes	Yes	Yes

For Further Information
see Page 10 Above:

NOTE: INCLUDES ALL IN-SITU TESTS.

for Each Actuation on Failure to Actuate:						1.	2.	3.	4.	5.
301. S/B VALVE SERIAL NUMBER	N63800-00-0110	N63800-00-0037	N63800-00-0043	N63800-00-0044	N63800-00-0106					
302. COMPONENT ID (LOCATION)	1821*RVFO41L	1821*RVFO41F	1821*RVFO47C	1831*RVFO47D	1831*RVFO41D					
303. DATE OF ACTUATION (Mo/Da/Yr)	12/04/94	12/04/94	12/04/94	12/04/94	12/04/94					
304. TIME OF DAY (24 Hours Clock)	20:04	20:25	20:41	APPROX 19:58	APPROX 19:58					
305. TYPE OF ACTUATION (Code)	B	B	B	C	C					
306. CAUSE/REASON FOR ACTUATION (Code)	E	E	E	A	A					
307. RN OPERATING CONDITION PRIOR TO LIFT (Code)	E	E	E	E	E					
308. RN POWER (LEVEL PRIOR TO LIFT) (Code)	100%	100%	100%	100%	100%					
309. Time log'd for Telltape Temp to Return to Normal	see comment	see comment	see comment	see comment	see comment					
310. OTHER INSTRUMENTATION - FIRE (Code)	XX, X	XX, X	XX, X	XX, X	XX, X					
311. OTHER INSTRUMENTATION - SMOKE, HEADLINE AND STATUS.	N/A	N/A	N/A	N/A	N/A					
312. RN PRESSURE PRIOR TO ACTUATION (PSIG)	947	942	879	1090	1090					
IF AVAILABLE / IN ATTACHMENT										
313. RN SEAT PRESSURE AT VALVE CLOSURE (PSIG)	602	702	692	NOT AVAILABLE	NOT AVAILABLE					
314. DURATION OF THIS ACTUATION (MINUTES:SECONDS)	8:46	3:22 4:37 (11/24/94)	2:44	APPROX 0:10	APPROX 0:10					
315. FAILURES, REPORTS (Code)	C	C	C	C	C					
316. LER NUMBER (5 Digit Number)	N/A	N/A	N/A	N/A	N/A					
317. COMMENTS CONCERNING THIS ACTUATION ATTACHED? (YES OR NO)	Yes	Yes	Yes	Yes	Yes					

NOTE: INCLUDES ALL IN-SITU TESTS.

FOR EACH ACTUATION
OR FAILURE TO ACTUATE:

	1.	2.	3.	4.	5.
301. S/R VALVE SERIAL NUMBER	N63800-00-0038				
302. COMPONENT ID (LOCATION)	1821XRUF041G				
303. DATE OF ACTUATION (Mo/Da/Yr)	12/04/94				
304. TIME OF DAY (24 HOUR CLOCK)	APPROX 19:58				
305. TYPE OF ACTUATION (CODE)	C				
306. CAUSE/REASON FOR ACTUATION (CODE)	A				
307. RX OPERATING CONDITION PRIOR TO LIFT (CODE)	E		NOT		
308. RX POWER LEVEL PRIOR TO LIFT (X RATED THERMAL)	100%		USED		
309. Time Req'd for Tailpipe Temp to Return to Normal	SEE COMMENT				
310. OTHER INSTRUMENTATION - TYPE (CODE)	XX,X				
311. OTHER INSTRUMENTATION - OTHER. READING AND UNITS.	N/A				
312. RX PRESSURE PRIOR TO ACTUATION (PSIG)	1090				
IF AVAILABLE/IF APPLICABLE					
313. RESEAT PRESSURE AT VALVE CLOSURE (PSIG)	NOT AVAILABLE				
314. DURATION OF THIS ACTUATION (MINUTES:SECONDS)	APPROX 0:10				
315. FAILURES, REPORTS (CODE)	C				
316. LER NUMBER (5 DIGIT NUMBER)	N/A				
317. COMMENTS REGARDING THIS ACTUATION: ATTACHED? (YES OR NO)	Yes				

SRVS

Prepared By: [Signature]Approved By: [Signature]

LEAKAGE LOG OR ACTIVATION EVENT

PLANT DOCKET # 50- 4518

CURRENT SHEET

NOTE: DATE AND TIME MUST MATCH ISSUE OF REPORT (CONVERTED ON).
PLEASE DOUBLE CHECK FOR ACCURACY.

SVB VALVE SERIAL NUMBER:

N63800-00-01181B21#RVF051G

CURRENT PERTAINS TO:

LEAKAGE LOG ☐OR ACTIVATION EVENT ☒DATE OF LEAK OR
ACTIVATION (MM/DD/YY):09/08/94TIME OF LEAK OR ACTIVATION
(24 HOUR CLOCK):20:45

COMMENTS:

① after lift, tailpipe temperature was observed to return to normal with reactor power = 100%

② SRV was manually lifted for RPV pressure control after scram 94-01.

SVB VALVE SERIAL NUMBER:

N63800-00-01181B21#RVF051G

CURRENT PERTAINS TO:

LEAKAGE LOG ☐OR ACTIVATION EVENT ☒DATE OF LEAK OR
ACTIVATION (MM/DD/YY):09/08/94TIME OF LEAK OR ACTIVATION
(24 HOUR CLOCK):23:48

COMMENTS:

① after lift, tailpipe temperature was observed to return to normal with reactor power = 100%

② SRV was manually lifted for RPV pressure control after scram 94-01

SVB VALVE SERIAL NUMBER:

N63800-00-01181B21#RVF051G

CURRENT PERTAINS TO:

LEAKAGE LOG ☐OR ACTIVATION EVENT ☒DATE OF LEAK OR
ACTIVATION (MM/DD/YY):10/21/94TIME OF LEAK OR ACTIVATION
(24 HOUR CLOCK):09:53

COMMENTS:

① after lift, tailpipe temperature was observed to return to normal with reactor power = 100%

② SRV was manually lifted IAW STP-202-4601 after replacing broken cable connector on cable # 1A054BC.604 for "B" submerid (reference MW # R215552) SRV was declared operable

afterwards

SNVS

Prepared By: *[Signature]*Approved By: *[Signature]*

LEAKAGE LOG OR ACTUATION EVENT

PLANT DOCKET # 50-141518

COMMENT SHEET

NOTE: DATE AND TIME MUST MATCH THOSE OF REPORT CORRELATED ON.
PLEASE DOUBLE CHECK FOR ACCURACY.

S/V VALVE SERIAL NUMBER:

N63800-00-0118

COMMENT PERTAINS TO:

LEAKAGE LOG ☐OR ACTUATION EVENT ☒DATE OF LEAK OR
ACTUATION (MM/DD/YY):

12/04/94

TIME OF LEAK OR ACTUATION
(24 HOUR CLOCK):

20:00

COMMENTS: ① after lift, tailpipe temperature remained elevated when Rx power returned
to 100%.

② SRV was manually lifted for RPV pressure control after scram 94-02

S/V VALVE SERIAL NUMBER:

N63800-00-0042

COMMENT PERTAINS TO:

LEAKAGE LOG ☐OR ACTUATION EVENT ☒DATE OF LEAK OR
ACTUATION (MM/DD/YY):

03/08/94

TIME OF LEAK OR ACTUATION
(24 HOUR CLOCK):

20:50

COMMENTS: ① after lift, tailpipe temperature remained elevated when Rx power returned
to 100%.

② SRV was manually lifted for RPV pressure control after scram 94-01

S/V VALVE SERIAL NUMBER:

N63800-00-0042

COMMENT PERTAINS TO:

LEAKAGE LOG ☐OR ACTUATION EVENT ☒DATE OF LEAK OR
ACTUATION (MM/DD/YY):

12/04/94

TIME OF LEAK OR ACTUATION
(24 HOUR CLOCK):

20:02

COMMENTS: ① after lift, tailpipe temperature remained elevated when Rx power returned
to 100%.

② SRV was manually lifted for RPV pressure control after scram 94-02

SRVS

Prepared By: [Signature]

LEAKAGE LOG OR ACTIVATION EVENT

PLANT DOCKET # 50-41518

Approved By: [Signature]

DATE AND TIME MUST MATCH THOSE OF REPORT COVERED ON.

NOTE: PLEASE DOUBLE CHECK FOR ACCURACY.

S/R VALVE SERIAL NUMBER:

N63800-00-0110

1821*RVFO41L

COMMENT PERTAINS TO:

LEAKAGE LOG ☐OR ACTIVATION EVENT ☒DATE OF LEAK OR
ACTIVATION (MM/DD/YY):

09/08/94

TIME OF LEAK OR ACTIVATION
(24 HOUR CLOCK):

20:56

COMMENTS: ① after lift tailpipe temperature returned to normal when R/PV power returned to 100%

② SRV was manually lifted for R/PV pressure control after scream 94-01

S/R VALVE SERIAL NUMBER:

N63800-00-0110

1821*RVFO41L

COMMENT PERTAINS TO:

LEAKAGE LOG ☐OR ACTIVATION EVENT ☒DATE OF LEAK OR
ACTIVATION (MM/DD/YY):

12/09/94

TIME OF LEAK OR ACTIVATION
(24 HOUR CLOCK):

20:04

COMMENTS: ① after lift, tailpipe temperature remained elevated when R/PV power returned to 100%

② SRV was manually lifted for R/PV pressure control after scream 94-02

S/R VALVE SERIAL NUMBER:

N63800-00-0117

1821*RVFO51D

COMMENT PERTAINS TO:

LEAKAGE LOG ☐OR ACTIVATION EVENT ☒DATE OF LEAK OR
ACTIVATION (MM/DD/YY):

09/08/94

TIME OF LEAK OR ACTIVATION
(24 HOUR CLOCK):

21:02

COMMENTS: ① after lift, tailpipe temperature returned to normal when R/PV power returned to 100%

② SRV automatically lifted at 1103 psig setpoint in response to an R/PV overpressure event during scream 94-01 recovery.

SDVS

Prepared By: W. J. BlandApproved By: W. J. BlandLEAKAGE LOG OR ACTIVATION EVENT
CURRENT SHEET

PLANT DOCKET # 50-141518

NOTE: DATE AND TIME MUST MATCH THOSE OF REPORT COVERED ON.
PLEASE DOUBLE CHECK FOR ACCURACY.

S/V VALVE SERIAL NUMBER: N63800-00-0117 LEAKAGE LOG ☐ OR ACTIVATION EVENT ☒ DATE OF LEAK OR ACTIVATION (MM/DD/YY): 09/08/94 TIME OF LEAK OR ACTIVATION (24 HOUR CLOCK): 21:16

1B2.1 * RVFO51D

COMMENTS: ① after lift, tailpipe temperatures returned to normal when Rx power returned to 100%.

② SRV automatically lifted at 1033 psig setpoint in response to RPV overpressure event during SCRAM 94-01 recovery.

S/V VALVE SERIAL NUMBER: N63800-00-0117 LEAKAGE LOG ☐ OR ACTIVATION EVENT ☒ DATE OF LEAK OR ACTIVATION (MM/DD/YY): 09/08/94 TIME OF LEAK OR ACTIVATION (24 HOUR CLOCK): 21:22

1B2.1 * RVFO51D

COMMENTS: ① after lift, tailpipe temperatures returned to normal when Rx power returned to 100%.

② SRV automatically lifted at 1033 psig setpoint in response to RPV overpressure event during SCRAM 94-01 recovery.

S/V VALVE SERIAL NUMBER: N63800-00-0117 LEAKAGE LOG ☐ OR ACTIVATION EVENT ☒ DATE OF LEAK OR ACTIVATION (MM/DD/YY): 09/08/94 TIME OF LEAK OR ACTIVATION (24 HOUR CLOCK): 21:30

1B2.1 * RVFO51D

COMMENTS: ① after lift, tailpipe temperatures returned to normal when Rx power returned to 100%.

② SRV automatically lifted at 1033 psig setpoint in response to RPV overpressure event during SCRAM 94-01 recovery.

SRVS

Prepared by: Art D. [Signature]LEAKAGE LOG OR ACTIVATION EVENT
COMMENT SHEETPLANT DOCKET # 50- 81518Approved by: W. S. BranchDATE AND TIME MUST MATCH THOSE OF REPORT CONCERNED ON.
NOTE: PLEASE DOUBLE CHECK FOR ACCURACY.

S/R VALVE SERIAL NUMBER:

163800-00-01171821* RUF051D

COMMENT PERTAINS TO:

LEAKAGE LOG ☐ OR ACTIVATION EVENT ☒DATE OF LEAK OR
ACTIVATION (MM/DD/YY):09/08/94TIME OF LEAK OR ACTIVATION
(24 HOUR CLOCK):22:55

COMMENTS: ① after lift, tailpipe temperatures returned to normal when Rx power returned to 100%.

② SRV automatically lifted at 1033 psig setpoint in response to RPV overpressure event during scram 94-01 recovery.

S/R VALVE SERIAL NUMBER:

163800-00-01171821* RUF051D

COMMENT PERTAINS TO:

LEAKAGE LOG ☐ OR ACTIVATION EVENT ☒DATE OF LEAK OR
ACTIVATION (MM/DD/YY):12/04/94TIME OF LEAK OR ACTIVATION
(24 HOUR CLOCK):19:58

COMMENTS: ① after lift, tailpipe temperatures remained elevated when Rx power returned to 100%.

② SRV automatically lifted at 1103 psig setpoint in response to RPV overpressure event during ~~scram~~ SCRAM 94-02 recovery.

934 2/15/95

S/R VALVE SERIAL NUMBER:

163800-00-01151821* RUF051C

COMMENT PERTAINS TO:

LEAKAGE LOG ☐ OR ACTIVATION EVENT ☒DATE OF LEAK OR
ACTIVATION (MM/DD/YY):09/08/94TIME OF LEAK OR ACTIVATION
(24 HOUR CLOCK):21:02

COMMENTS: ① after lift, tailpipe temperatures remained elevated when Rx power returned to 100%.

② SRV automatically lifted at 1073 psig setpoint in response to RPV overpressure event during SCRAM 94-01 recovery.

SHVS

Prepared By: John D. HallApproved By: W. S. BairdLEAKAGE LOG OR ACTIVATION EVENT
COMMENT SHEET

PLANT DOCKET # 50- 4518

NOTE: DATE AND TIME MUST MATCH INSIDE OF REPORT COMMENTED ON.
PLEASE DOUBLE CHECK FOR ACCURACY.

S/R VALVE SERIAL NUMBER: 16380-00-0115 COMMENT PERTAINS TO: LEAKAGE LOG ☐ OR ACTIVATION EVENT ☒ DATE OF LEAK OR ACTIVATION (MM/DD/YY): 09/08/94 TIME OF LEAK OR ACTIVATION (24 HOUR CLOCK): 21:30

1821*RVF051C DATE: 09/15/95

COMMENTS: ① after lift, ~~Rx~~ tailpipe temperatures remained elevated when Rx power returned to 100%.
.....

② SRV automatically lifted at 1073 psig setpoint in response to RPV overpressure event during SCRAM 94-01 recovery.
.....

S/R VALVE SERIAL NUMBER: 16380-00-0115 COMMENT PERTAINS TO: LEAKAGE LOG ☐ OR ACTIVATION EVENT ☒ DATE OF LEAK OR ACTIVATION (MM/DD/YY): 12/04/94 TIME OF LEAK OR ACTIVATION (24 HOUR CLOCK): 19:58

1821*RVF051C

COMMENTS: ① after lift, tailpipe temperatures remained elevated when Rx power returned to 100%.
.....

② SRV automatically lifted at 1073 psig setpoint in response to RPV overpressure event during SCRAM 94-02 recovery.
.....

S/R VALVE SERIAL NUMBER: 16380-00-0037 COMMENT PERTAINS TO: LEAKAGE LOG ☐ OR ACTIVATION EVENT ☒ DATE OF LEAK OR ACTIVATION (MM/DD/YY): 09/08/94 TIME OF LEAK OR ACTIVATION (24 HOUR CLOCK): 21:02

1821*RVF041F

COMMENTS: ① after lift, tailpipe temperatures remained elevated when Rx power returned to 100%.
.....

② SRV was manually lifted for RPV pressure control after scram 94-01
.....

SRVS

Prepared By: Attel
Approved By: W. E. B. B. B.LEAKAGE LOG OR ACTIVATION EVENT
COMMENT SHEET

PLANT DOCKET # 50-41518

NOTE: DATE AND TIME MUST MATCH INDEX OF REPORT CONCERNED ON.
PLEASE DOUBLE CHECK FOR ACCURACY.

S/V VALVE SERIAL NUMBER:

COMMENT PERTAINS TO:

DATE OF LEAK OR
ACTIVATION (Mo/Yr/Day):TIME OF LEAK OR ACTIVATION
(24 HOUR CLOCK):

N63800-00-0046

LEAKAGE LOG ☐ OR ACTIVATION EVENT ☒

09/08/94

21:33

1821*RVFO51B

COMMENTS:

① after lift, tailpipe temperatures were observed to return to normal when Rx power returned to 100%

② SRV was manually lifted for RPV pressure control after scream 94-01

S/V VALVE SERIAL NUMBER:

COMMENT PERTAINS TO:

DATE OF LEAK OR
ACTIVATION (Mo/Yr/Day):TIME OF LEAK OR ACTIVATION
(24 HOUR CLOCK):

N63800-00-0046

LEAKAGE LOG ☐ OR ACTIVATION EVENT ☒

12/04/94

19:58

1821*RVFO51B

COMMENTS:

① after lift, tailpipe temperatures were observed to return to normal when Rx power returned to 100%

② SRV was manually lifted for RPV pressure control after scream 94-02

S/V VALVE SERIAL NUMBER:

COMMENT PERTAINS TO:

DATE OF LEAK OR
ACTIVATION (Mo/Yr/Day):TIME OF LEAK OR ACTIVATION
(24 HOUR CLOCK):

N63800-00-0045

LEAKAGE LOG ☐ OR ACTIVATION EVENT ☒

12/04/94

19:59

1821*RVFO47F

COMMENTS:

① after lift, tailpipe temperatures remained elevated when Rx power returned to 100%

② SRV was manually lifted for RPV pressure control after scream 94-02

SRVS

Prepared By: *[Signature]*Approved By: *[Signature]*LEAKAGE LOG OR ACTUATION EVENT
COMMENT SHEETPLANT DOCKET # 50- 41518NOTE: DATE AND TIME MUST MATCH THOSE OF REPORT COMMENTED ON.
PLEASE DOUBLE CHECK FOR ACCURACY.

S/V VALVE SERIAL NUMBER:

COMMENT PERTAINS TO:

DATE OF LEAK OR
ACTUATION (MM/DD/YY):TIME OF LEAK OR ACTUATION
(24 HOUR CLOCK):163800-00-0037LEAKAGE LOG ☐OR ACTUATION EVENT ☒12/04/9420:251B21*RVF041F

COMMENTS: ① After lift, tailpipe temperatures remained elevated when Rx power returned to 100%.

② SRV was manually lifted for RPV pressure control after SCRAM 94-02.

S/V VALVE SERIAL NUMBER:

COMMENT PERTAINS TO:

DATE OF LEAK OR
ACTUATION (MM/DD/YY):TIME OF LEAK OR ACTUATION
(24 HOUR CLOCK):163800-00-0043LEAKAGE LOG ☐OR ACTUATION EVENT ☒12/04/9420:411B21*RVF047C

COMMENTS: ① After lift, tailpipe temperatures remained elevated when Rx power returned to 100%.

② SRV was manually lifted for RPV pressure control after SCRAM 94-02.

S/V VALVE SERIAL NUMBER:

COMMENT PERTAINS TO:

DATE OF LEAK OR
ACTUATION (MM/DD/YY):TIME OF LEAK OR ACTUATION
(24 HOUR CLOCK):163800-00-0044LEAKAGE LOG ☐OR ACTUATION EVENT ☒12/04/94APPROX. 19:581B21*RVF047D

COMMENTS: ① After lift, tailpipe temperatures remained elevated when Rx power returned to 100%.

② SRV lifted in safety (spring mode) in response to localized pressure wave after full MSIV closure event. Evidence includes D log steam flow, tailpipe temperature elevation.

NOTE: Previous investigation from similar response in 1986 (CR86-677 AND 86-0752).

SRVS

Prepared By: [Signature]Approved By: [Signature]

LEAKAGE LOG OR ACTIVATION EVENT

PLANT DOCKET # 50- 41518

COMMENT SHEET

NOTE: DATE AND TIME MUST MATCH INDEX OF REPORT GENERATED ON.
PLEASE DOUBLE CHECK FOR ACCURACY.

S/R VALVE SERIAL NUMBER:	LEAKAGE LOG <input type="checkbox"/> OR ACTIVATION EVENT <input checked="" type="checkbox"/>	DATE OF LEAK OR ACTIVATION (MM/DD/YY):	TIME OF LEAK OR ACTIVATION (24 HOUR CLOCK):
NK3800-00-0106		12/04/94	APPROX. 19:58
1B21*RVFO41D			
COMMENTS: (1) After lift, tailpipe temperatures returned to normal when reactor power was returned to 100%.			
(2) SRV lifted in SAFETY MODE (SPRINT) in response to localized pressure wave after full MSIV closure event. Evidence includes "D" loop steam flow, elevated tailpipe temperature.			
NOTE: Previous investigation from similar plant responses in 1986 (CR 86-0677 AND 86-0752).			
S/R VALVE SERIAL NUMBER:	LEAKAGE LOG <input type="checkbox"/> OR ACTIVATION EVENT <input type="checkbox"/>	DATE OF LEAK OR ACTIVATION (MM/DD/YY):	TIME OF LEAK OR ACTIVATION (24 HOUR CLOCK):
NK3800-00-0038		12/04/94	APPROX. 19:58
1B21*RVFO41G			
COMMENTS: (1) After lift, tailpipe temperatures remained elevated when R power was returned to 100%.			
(2) SRV lifted in SAFETY MODE (SPRINT) in response to localized pressure wave after full MSIV closure event. Evidence includes "C" loop steam flow, elevated tailpipe temperature.			
NOTE: Previous investigation from similar plant responses in 1986 (CR 86-0677 AND 86-0752).			
S/R VALVE SERIAL NUMBER:	LEAKAGE LOG <input type="checkbox"/> OR ACTIVATION EVENT <input type="checkbox"/>	DATE OF LEAK OR ACTIVATION (MM/DD/YY):	TIME OF LEAK OR ACTIVATION (24 HOUR CLOCK):
COMMENTS:			

NOT

USED

3.0 Reactor Coolant System Specific Activity Analysis

There were no instances of reactor coolant specific activity exceeding the limits of Technical Specification 3.4.5 during the year 1994.