

Point Beach Nuclear Plant
PROCEDURE RECORD AND FIELD COPY TRACKING

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Procedure Number IT-10 Unit PB0 Revision Number 41

Procedure Title TEST OF ELECT. DRIVEN AUX. FEED PUMPS & VALVES Revision Date 2/26/01

Procedure Revision Checked and Current: Tracking Checked for Temporary Changes.

By *[Signature]* Date 3/14/01

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REC'D JUL 11 8 2001

A/111

IT 10

TEST OF ELECTRICALLY-DRIVEN AUXILIARY FEED PUMPS AND VALVES (QUARTERLY)

DOCUMENT TYPE: Technical

CLASSIFICATION: Safety Related

REVISION: 41

EFFECTIVE DATE: February 26, 2001

REVIEWER: Qualified Reviewer

APPROVAL AUTHORITY: Department Manager

PROCEDURE OWNER (title): Group Head

OWNER GROUP: Operations

Verified Current Copy: _____
Signature Date Time

List pages used for Partial Performance

1-24, ~~40-42~~ ^{IT-6} 3/18/01
4c-50
51 & 62

Controlling Work Document Numbers

49 23 106

TEST OF ELECTRICALLY-DRIVEN AUXILIARY FEED
PUMPS AND VALVES (QUARTERLY)

INITIAL

4.0 INITIAL CONDITIONS

4.1 This test is being done to satisfy:

The normally scheduled callup. Task sheet No. 9923206
992306 ^{2/23/01} Note (A)

NOTE: If this test is being performed to satisfy PMT or off-normal frequency requirements, Shift Management may N/A those portions of the procedure that are NOT applicable for the performance of the PMT. The use of N/A is NOT acceptable for Initial Conditions, Precautions and Limitations, or procedure steps that pertain to the equipment requiring PMT, nor is it acceptable for restoration of equipment/components unless the component has been declared inoperable.

NOTE: If this test is being performed to satisfy pump PMT requirements any vibration levels above 0.325 ips measured at any ASME Section XI Code required location shall be evaluated by engineering prior to declaring the pump operable.

Post maintenance operability test: 9920946
Equipment ID 9925712
WO No(s). 9921864
Task Sheet No.(s) 9934148
 Special test - no numbers 9932549
Explain: 9932636

4.2 Auxiliary feed system lined up for critical operation per CL 13E, Part 2, Auxiliary Feedwater Valve Lineup Motor-Driven.

4.3 Standby emergency power shall be available to the 4160 V safeguards buses 1A05, 1A06, 2A05, 2A06, or the component(s) to be tested is/are in the same train that is out of service.

4.4 Chemistry notified about auxiliary feed injection.

4.5 Reactor power on both Units is reduced a minimum of 2% OR to a power level directed by DSS. (Mark step N/A if in Hot or Cold Shutdown)

NOTE (A) THIS IT-10 WILL ALSO BE USED FOR PART OF P-38A.

TEST OF ELECTRICALLY-DRIVEN AUXILIARY FEED
PUMPS AND VALVES (QUARTERLY)

INITIALS

4.6 IF performing Section 5.3,
THEN the following auxiliary feedwater pumps with their associated flow
paths, are operable as applicable.
(N/A the step that is NOT applicable.)

4.6.1 For two-unit operation:
P-38B, 1P-29, and 2P-29 are operable

JLG

4.6.2 For single-unit operation:
P-38B and 1P-29 are operable for Unit 1
OR
P-38B and 2P-29 are operable for Unit 2

NA JLG

4.7 IF performing Section 5.37,
THEN the following auxiliary feedwater pumps with their associated flow
paths, are operable as applicable.
(N/A the step that is NOT applicable.)

4.7.1 For two-unit operation:
P-38A, 1P-29, and 2P-29 are operable

NA JLG

4.7.2 For single-unit operation:
P-38A and 1P-29 are operable for Unit 1
OR
P-38A and 2P-29 are operable for Unit 2

NA JLG

4.8 Permission to Perform Test

The conditions required by this test are consistent with required plant
conditions, including equipment operability. Permission is granted to
perform this test.

DSS Wd for DAW TIME 2007 DATE 02/11/01

TEST OF ELECTRICALLY-DRIVEN AUXILIARY FEED
PUMPS AND VALVES (QUARTERLY)

INITIALS

NOTE: When operability testing of Train A is NOT required, then N/A
Steps 5.3 through 5.36.

5.3 TRAIN A TEST

5.3.1 IF sufficient qualified operators are NOT available on shift to support Step 5.3.2, THEN consider the equipment unavailable per Maintenance Rule AND N/A Step 5.3.2.

TSG

5.3.2 Assign a Qualified Individual in the Control Room AND a Level 4 Dedicated Operator in the field per OM 3.26, Use of Dedicated Operators, to perform the restoration steps of Attachment J, if required. (Otherwise mark this step as N/A)

N/A WK

5.4 ENTER a LCO for P-38A.
(N/A this step if NOT required for current plant conditions per Technical Specification 15.3.4)

TIME 05:30 DATE 03/11/01

TSG

5.5 IF at any time during the performance of this test an Auxiliary Feedwater Initiation is required, THEN immediately perform Attachment J to recover Train A. (N/A this step if NOT required.)

N/A

NOTE: When performing operability checks of the pump only, then N/A Subsections of 5.6 through 5.10 and Steps 5.24 through 5.31.

NOTE: To prevent preconditioning a valve, the applicable Section steps shall be performed out of sequence to provide a recordable action for each valve manipulation. (i.e., If the initial position of the valve is shut and the first step is to shut and time the valve, then the opening stroke evolution shall be performed first.)

5.6 PERFORM the following to stroke AF-4022, P-38A AFP Discharge to 2HX-1A Steam Generator:

5.6.1 Open AND time AF-4022, P-38A AFP Discharge to 2HX-1A Steam Generator:

a Record time to open on Attachment A

TSG

b Check local valve position indication and record on Attachment A

TSG

TEST OF ELECTRICALLY-DRIVEN AUXILIARY FEED
PUMPS AND VALVES (QUARTERLY)

INITIALS

- 5.11 Verify P-38A AFP Discharge valves shut:
 - AF-4022, P-38A AFP Discharge to 2HX-1A Steam Generator JL
 - AF-4023, P-38A AFP Discharge to 1HX-1A Steam Generator. JL
- 5.12 Check P-38A pump bearing oil level between the red lines on the glass.
 - Inboard JL
 - Outboard JL
- 5.13 Perform the following to place PI-4010A, P-38A AFP Suction Pressure Indicator in service:
 - 5.13.1 Shut AF-36D, PI-4010A vent valve. JL
 - 5.13.2 Open AF-36C, PI-4010A isolation valve. JL
 - 5.13.3 Record suction pressure on Attachment B. JL
- 5.14 Ensure PC-4012, P 38A AFP Discharge Control, is in MANUAL AND SHUT. JL

CAUTION

If, at any time, equipment operation appears abnormal, secure the pump.

NOTE: Unit 1 and Unit 2 AFP Interlock Defeat key switches shall be defeated per Step 5.2 prior to pump start.

NOTE: C01A 2-8 and 2-10, Auxiliary Feedwater System Disabled, annunciator will clear when P-38A is removed from PULLOUT.

5.15 Start P-38A. Time Start 2122 JL

TEST OF ELECTRICALLY-DRIVEN AUXILIARY FEED
PUMPS AND VALVES (QUARTERLY)

INITIAL

NOTE: P-38A suction pressure trip is set at 6.5 psig (with a 20 second time delay).

5.16 Verify P-38A suction pressure as read on PI-4010A is greater than the 7.0 psig low suction pressure alarm setpoint. Record on Attachment B.

TL/ST

5.17 Check AF-4007, P-38A AFP Mini-Recirc Control, mini-recirculation valve open.

TL

5.18 Check mini-recirculation flow equal to or greater than 70 gpm on FIT-4050A.

TL/ST

5.19 Check the packing glands for excessive leakage or overheating.

TL/ST

5.20 Check pump and motor for unusual noise or overheating.

TL/ST

5.21 WHEN P-38A has run for five-minutes.
THEN record the following on Attachment B.

- PI-4011, Pump Discharge Pressure.
- PI-4010A, Pump Suction Pressure.
- FIT-4050A, Mini-Recirculation Flow.
- Recirculation Flow Vibration Data.

TL/ST

TEST OF ELECTRICALLY-DRIVEN AUXILIARY FEED
PUMPS AND VALVES (QUARTERLY)

INITIALS

6.0 ANALYSIS

6.1 Operations

6.1.1 Comparisons with allowable ranges of Acceptance Criteria test values complete. All performers have signed onto the 'Performed by' page.

[Signature]
SRO

3/15/01 01:35
Date/Time

6.1.2 Forward completed procedure to IST Coordinator

NOTE: To be completed within 96 hours of test completion by IST coordinator or his representative.

6.2 IST Coordinator

6.2.1 Comparisons with allowable ranges of test values and analysis of deviations complete.

[Signature]

6.2.2 Any requirements for corrective action? (If yes, give details in the IST Remarks section.)

[Signature]

(Circle one) YES NO

6.2.3 IF Acceptance Criteria needs updating, THEN initiate a procedure revision. (Otherwise N/A)

[Signature]
Data Analyzed By

3/16/01 1530
Date/Time

[Signature] N/A
3-16-01

IST Remarks:

WO# 9920946, AF-04012-0 DIAGNOSTIC TEST. WO# 9925712 - FIP-04012 REPLACE REGULATOR.

WO# 9921864, RIT VLV AF-4028 REPLACEMENT. WO# 9934148 - FLOW CRIFICE MCB, DRILL TO

INCREASE RECIRC FLOW, RO-04008. WO# 9932519 - FE-4050A, FLOW ELEMENT MEASURE/REPLACE.

WO# 9932636 P-036A BEARING FLUSH. AF-04012 TO BE REPLACED FOR FAILURE TO MEET ACC CRITERIA FOR STEP 5.2/6.

TEST OF ELECTRICALLY-DRIVEN AUXILIARY FEED
PUMPS AND VALVES (QUARTERLY)

REMARKS SECTION:

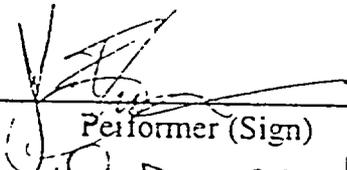
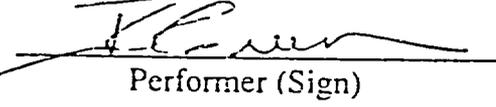
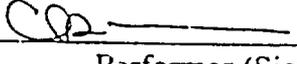
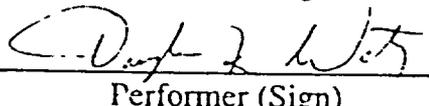
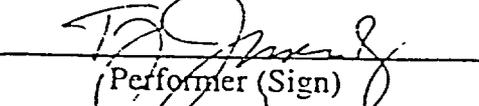
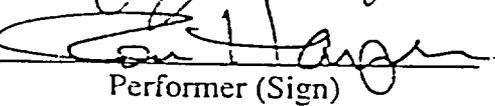
① FIT-4050A indicated 69.5 gpm average flow.
Ultrasonic flow meter indicated 71 gpm.

② STEPS REPEATED TO DETERMINE SOURCE
OF LEAKAGE ON AF133 P38A AFP AF4012
NITROGEN BACKUP FIRST-OFF ISOLATION
PRESSURE DROP TEST (SEE Attachment D).

LEAKAGE WAS DETERMINED TO BE FROM
AF-4052 RELIEF VALVE. WO 172573
INITIATED.

TEST OF ELECTRICALLY-DRIVEN AUXILIARY FEED
PUMPS AND VALVES (QUARTERLY)

Performed By:

<u>JOHN BALMA</u> Performer (Print)	 Performer (Sign)	<u>3-2-01 / 0855</u> Date Time	 Initials
<u>Lee R. Stock</u> Performer (Print)	 Performer (Sign)	<u>3-14-01 / 1037</u> Date Time	 Initials
<u>JAMES GREEN</u> Performer (Print)	 Performer (Sign)	<u>3/14/01 / 2004</u> Date Time	 Initials
<u>Charles D. McMillen</u> Performer (Print)	 Performer (Sign)	<u>3-14-01 / 2300</u> Date Time	 Initials
<u>Douglas K. Winton</u> Performer (Print)	 Performer (Sign)	<u>3/14/01 / 0555</u> Date Time	 Initials
<u>T. JESSESSKY</u> Performer (Print)	 Performer (Sign)	<u>3/15/01 / 10130</u> Date Time	 Initials
<u>R. HARPER</u> Performer (Print)	 Performer (Sign)	<u>3/15/01 / 10218</u> Date Time	 Initials
_____ Performer (Print)	_____ Performer (Sign)	<u>/</u> Date Time	_____ Initials
_____ Performer (Print)	_____ Performer (Sign)	<u>/</u> Date Time	_____ Initials
_____ Performer (Print)	_____ Performer (Sign)	<u>/</u> Date Time	_____ Initials
_____ Performer (Print)	_____ Performer (Sign)	<u>/</u> Date Time	_____ Initials
_____ Performer (Print)	_____ Performer (Sign)	<u>/</u> Date Time	_____ Initials

Reviewed By:

<u>T. JESSESSKY</u> Shift Supervision (Print)	 Shift Supervision (Sign)	<u>3/15/01 / 13135</u> Date Time	 Initials
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TEST OF ELECTRICALLY-DRIVEN AUXILIARY FEED
PUMPS AND VALVES (QUARTERLY)

ATTACHMENT A
VALVE STROKE VERIFICATION

NOTE: Data that falls outside the listed Acceptance Criteria constitutes inoperability of the related equipment.

AF-4022, P-38A AFP Discharge to 2HX-1A Steam Generator, Stroke Test						
Step No.	Parameter Measured	Instrument Used	Units	Reading	Acceptance Criteria	Initials
5.6.1	Time to OPEN	Stopwatch	sec.	17.99	15.27-20.67	JCG
5.6.1	Local Position Indication	N/A	N/A	Open	OPEN	JCG/MK
5.6.2	Time to SHUT	Stopwatch	sec.	17.84	15.76-21.32	JCG
5.6.2	Local Position Indication	N/A	N/A	Shut	SHUT	JCG/MK

AF-4023, P-38A Discharge to 1HX-1A Steam Generator, Stroke Test						
Step No.	Parameter Measured	Instrument Used	Units	Reading	Acceptance Criteria	Initials
5.7.1	Time to OPEN	Stopwatch	sec.	17.97	15.55-21.03	JCG
5.7.1	Local Position Indication	N/A	N/A	Open	OPEN	JCG/MK
5.7.2	Time to SHUT	Stopwatch	sec.	17.55	15.62-21.14	JCG
5.7.2	Local Position Indication	N/A	N/A	Shut	SHUT	JCG/MK

AF-4012, P-38A AFP Discharge Control, Stroke Test						
Step No.	Parameter Measured	Instrument Used	Units	Reading	Acceptance Criteria	Initials
5.8.2	Time to OPEN	Stopwatch	sec.	5.64	4.8-14.4	JCG
5.8.2	Local Position Indication	N/A	N/A	Open	OPEN	JCG/MK
5.8.3	Time to SHUT (info only)	Stopwatch	sec.	6.64	N/A	JCG
5.8.3	Local Position Indication	N/A	N/A	Shut	SHUT	JCG/MK

TEST OF ELECTRICALLY-DRIVEN AUXILIARY FEED
PUMPS AND VALVES (QUARTERLY)

ATTACHMENT A - Continued
VALVE STROKE VERIFICATION

NOTE: Data that falls outside the listed Acceptance Criteria constitutes inoperability of the related equipment.

AF-4009, P-38A AFP Suction from Service Water, Stroke Test						
Step No.	Parameter Measured	Instrument Used	Units	Reading	Acceptance Criteria	Initials
5.9.9	Time to OPEN	Stopwatch	sec.	29.09	24.88-33.66	JL
5.9.9	Local Position Indication	N/A	N/A	Open	OPEN	JL for MRP
5.9.11	Time to SHUT (info only)	Stopwatch	sec.	27.80	N/A	JL
5.9.11	Local Position Indication	N/A	N/A	Shut	SHUT	JL for MRP

AF-4007, P-38A AFP Mini-Recirc Control, Stroke Test						
Step No.	Parameter Measured	Instrument Used	Units	Reading	Acceptance Criteria	Initials
5.10.3	Time to OPEN (info only)	Stopwatch	sec.	2.39	N/A	JL for MRP
5.10.3	Local Position Indication	N/A	N/A	Open	OPEN	JL for MRP
5.10.5	Time to SHUT	Stopwatch	sec.	11.74	8.94-14.9	JL for MRP
5.10.5	Local Position Indication	N/A	N/A	Shut	SHUT	JL for MRP

Acceptance Criteria Satisfied for all tested valves in Attachment A: (Circle one) SAT UNSAT
Remarks:

JL 03/14/01 12:51
Performer Date/Time

JL 3/14/01 12:17
SRO Date/Time

TEST OF ELECTRICALLY-DRIVEN AUXILIARY FEED
PUMPS AND VALVES (QUARTERLY)

ATTACHMENT B
P-38A, AFW PUMP PERFORMANCE DATA (RECIRCULATION FLOW)

NOTE 1: The data recorded on Attachment B is for information only.

NOTE 2: Vibration points which are shaded must be recorded by the Micro-logger but are NOT required to be transferred to the table. Only points marked A, B, C, D, and E must be transferred to the table and are required for ASME Section XI. See Figure 1 for locations.

Step No.	Parameter Measured	Units	Reading	Acceptance Criteria	Initials
5.13.3	PI-4010A, P-38A AFP Suction Pressure	psig	15.6	N/A	JEP/11
5.16	PI-4010A, P-38A AFP Suction Pressure	psig	15.4	>7	JEP/11
5.21	P1-4011 Pump Discharge Pressure	psig	1310	N/A	JEP/11
5.21	PI-4010A, P-38A AFP Suction Pressure	psig	15.5	N/A	JEP/11
5.21	FIT-4050A, Mini-Recirc Flow	gpm	70.0	N/A	JEP/11
5.21	Recirculation Flow Vibration Data	INSTRUMENT	UNITS	READINGS	
P38A 1V ips	Note 2	Micro-logger	IPS pk		
P38A 1H ips	Note 2	Micro-logger	IPS pk		
P38A 1H ae	Note 2	Micro-logger	G env		
P38A 1H acc	Note 2	Micro-logger	G pk		
P38A 1A ips	Note 2	Micro-logger	IPS pk		
P38A 2V ips	Note 2	Micro-logger	IPS pk		
P38A 2H ips	Note 2	Micro-logger	IPS pk		
P38A 2H ae	Note 2	Micro-logger	G env		
P38A 2H acc	Note 2	Micro-logger	G pk		
P38A 2A ips	Note 2	Micro-logger	IPS pk		
P38A 3V ips	Note 2	Micro-logger	IPS pk		
P38A 3H ips	Note 2	Micro-logger	IPS pk		
P38A 3H ae	Note 2	Micro-logger	G env		
P38A 3H acc	Note 2	Micro-logger	G pk		
P38A 4V ips	Note 2	Micro-logger	IPS pk		
P38A 4H ips	Note 2	Micro-logger	IPS pk		
P38A 4H ae	Note 2	Micro-logger	G env		
P38A 4H acc	Note 2	Micro-logger	G pk		
P38A 4A ips	Note 2	Micro-logger	IPS pk		

TEST OF ELECTRICALLY-DRIVEN AUXILIARY FEED
PUMPS AND VALVES (QUARTERLY)

ATTACHMENT C

P-38A, AFW Pump Performance Data
1AF-102, AF-109, and 2AF-103 Full Flow Test

NOTE: Data that falls outside the listed Acceptance Criteria constitutes inoperability of the related equipment.

Full Flow Stroke Test 1AF-102, AF-109					
Step No.	Parameter Measured	Units	Reading	Acceptance Criteria	Initials
5.22.5	1PI-468, IHX-1A SG Pressure	psig	810	N/A	JL
5.22.5	1FI-4036, Flow to IHX-1A SG	gpm	202	≥200	JL

P-38A Full Flow IST Required Data (200 gpm)					
Step No.	Parameter Measured	Units	Reading	Acceptance Criteria	Initials
5.22.5	PI-4010A, P-38A AFP Suction Press	psig	14.7	N/A	JL
5.22.5	PI-4011, P-38A AFP Discharge Press	psig	120.5	N/A	JL
5.22.5	P-38A Delta P Note 1	psig	1190.3	1186 - 1231	JL
5.22.5	FIT-4050A, Mini-Recirc Flow	gpm	0.6	N/A	JL
5.22.5	DPIS-4007, P-38A Flow	gpm	200	200	JL
5.22.5	P38A 3V ips (C) vibration Note 2	IPS pk	c. 0.0453	≤0.256	JL
5.22.5	P38A 3H ips (D) vibration Note 2	IPS pk	c. 0.0793	≤0.491	JL
5.22.5	P38A 4A ips (E) vibration Note 2	IPS pk	c. 0.0506	≤0.378	JL
5.22.5	P38A 4V ips (A) vibration Note 2	IPS pk	0.0377	≤0.195	JL
5.22.5	P38A 4H ips (B) vibration Note 2	IPS pk	c. 0.0943	≤0.597	JL

TEST OF ELECTRICALLY-DRIVEN AUXILIARY FEED
PUMPS AND VALVES (QUARTERLY)

ATTACHMENT C - Continue

Full Flow Stroke Test 2AF-103, P-38A AFP Discharge to HX-1A SG Check					
Step No.	Parameter Measured	Units	Reading	Acceptance Criteria	Initials
5.23.5	2PI-468, 2HX-1A SG Pressure	psig	790	N/A	JG
5.23.5	2FI-4036, Flow to 2HX-1A SG	gpm	201	≥ 200	JG
5.23.5	1TR-2000, Pump Bearing Inboard Temp. Note 3	°F	68.4	< 160	JG
5.23.5	1TR-2000, Pump Bearing Outboard temp. Note 3	°F	63.5	< 160	JG
5.23.10	Pump Coastdown Behavior: Check (✓) if OK	N/A	OK	N/A	JG / 3/14/01

NOTE 1: Differential pressure = pump discharge pressure - pump suction pressure during test.

NOTE 2: If this test is being performed to satisfy pump PMT requirements any vibration levels above 0.325 ips measured at any ASME Section XI Code required location shall be evaluated by engineering prior to declaring the pump operable.

NOTE 3: Check recorded bearing temperatures are within the limits listed on Attachment I.

Acceptance Criteria Satisfied for all tested valves in Attachment C: (Circle one) SAT UNSAT
Remarks:

J. E. Allen 03/14/01 1221Z
Performer Date/Time

Mike Bohannon 3/14/01 1221Z
SRO Date/Time

TEST OF ELECTRICALLY-DRIVEN AUXILIARY FEED
PUMPS AND VALVES (QUARTERLY)

ATTACHMENT D
VALVE STROKE VERIFICATION

NOTE: Data that falls outside the listed Acceptance Criteria constitutes inoperability of the related equipment.

AF-133, P-38A AFP AF-4012 N2 Backup First-off Isol, Pressure Drop Test						
Step No.	Parameter Measured	Instrument Used	Units	Reading	Acceptance Criteria	Initials
5.24.4	PI-4051, Pressure	PI-4051	psig.	96	N/A	TLG
5.24.6	Time	Stopwatch	Min	15	≥ 15 min	TLG
5.24.6	PI-4051, Pressure	PI-4051	psig.	92	less than 3 psig drop after 15 Min.	TLG

AF-145, P-38A AFP AF-4012 N2 Backup South Bottle						
Step No.	Parameter Measured	Instrument Used	Units	Reading	Acceptance Criteria	Initials
5.25.5	Time to OPEN	Stopwatch	sec.	5 57	less than 20	TLG
5.25.7	Time to SHUT (info only)	Stopwatch	sec.	7.92	N/A	TLG

AF-142, P-38A AFP AF-4012 N2 Backup North Bottle						
Step No.	Parameter Measured	Instrument Used	Units	Reading	Acceptance Criteria	Initials
5.26.5	Time to OPEN	Stopwatch	sec.	5.73	less than 20	TLG
5.26.7	Time to SHUT (info only)	Stopwatch	sec.	6.59	N/A	TLG

Acceptance Criteria Satisfied for all tested valves in Attachment D: (Circle one) SAT UNSAT

Remarks:
(1) Pressure drop 4 psig.

TLG 03/14/01 12243
Performer Date/Time

TLG 3/14/01 12300
SRO Date/Time

TEST OF ELECTRICALLY-DRIVEN AUXILIARY FEED
PUMPS AND VALVES (QUARTERLY)

ATTACHMENT D
VALVE STROKE VERIFICATION

NOTE: Data that falls outside the listed Acceptance Criteria constitutes inoperability of the related equipment.

AF-133, P-38A AFP AF-4012 N2 Backup First-off Isol, Pressure Drop Test						
Step No.	Parameter Measured	Instrument Used	Units	Reading	Acceptance Criteria	Initials
5.24.4	PI-4051, Pressure	PI-4051	psig.	98.5	N/A	TH/SL
5.24.6	Time	Stopwatch	Min	15	≥ 15 min	TH/SL
5.24.6	PI-4051, Pressure	PI-4051	psig.	(1) 94.5	less than 3 psig drop after 15 Min.	TH/SL

AF-145, P-38A AFP AF-4012 N2 Backup South Bottle						
Step No.	Parameter Measured	Instrument Used	Units	Reading	Acceptance Criteria	Initials
5.25.5	Time to OPEN	Stopwatch	sec.	N/A	less than 20	TH
5.25.7	Time to SHUT (info only)	Stopwatch	sec.	N/A	N/A	TH

AF-142, P-38A AFP AF-4012 N2 Backup North Bottle						
Step No.	Parameter Measured	Instrument Used	Units	Reading	Acceptance Criteria	Initials
5.26.5	Time to OPEN	Stopwatch	sec.	N/A	less than 20	TH
5.26.7	Time to SHUT (info only)	Stopwatch	sec.	N/A	N/A	TH

Acceptance Criteria Satisfied for all tested valves in Attachment D: (Circle one) SAT **UNSAT**

Remarks:

(1) Pressure Drop 4 ps:

TEST REPEATED TO DETERMINE SOURCE OF LEAK - NOTE (2) SEE BEHAVIOR

TH for PDD 3/11/01 02:30
Performer Date/Time

TH Jerny 3/15/01 01:29
SRO Date/Time