

Point Beach Nuclear Plant
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Procedure Number IT - 10 Unit PBO Revision Number 43

Procedure Title Electrically-Driven Auxiliary Feed Pumps and Valves Revision Date 7/5/01

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

By James E. Sikley Date 8/20/01

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NOTE 1: ANY TEMPORARY CHANGES MADE TO THIS PROCEDURE SHALL BE MADE TO THE RECORD COPY AND ALL OTHER FIELD COPIES THAT HAVE BEEN ISSUED.

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 Reference: NP 1.1.4

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 Revision 2 2/21/01

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IT 10

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

DOCUMENT TYPE: Technical

CLASSIFICATION: Safety Related

REVISION: 43

EFFECTIVE DATE: July 5, 2001

REVIEWER: Qualified Reviewer

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OWNER GROUP: Operations

Verified Current Copy: _____
Signature Date Time

List pages used for Partial Performance

Controlling Work Document Numbers

9929226 _____

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

INITIALS

4.0 INITIAL CONDITIONS

4.1 This test is being done to satisfy:

X The normally scheduled callup. Task sheet No. 9929226

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.

X Post maintenance operability test
Equipment ID P-38A, P-38B (oil changes) AF-404-0
WO No(s). 9929228, 9929229, 9939359
Task Sheet No.(s) _____
Special test - no numbers.
Explain: _____

BT

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

g

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.

g

4.4 Chemistry notified about auxiliary feed injection.

g

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 CTS: Hot or Cold Shutdown {ITS: Modes 3, 4, 5, 6, & defueled})

g

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

INITIALS

4.6 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 IL FOR RWH TIME 1906 DATE 8/20/01

NOTE: Attachment L shall be used to document performance of multiple step performance and to record data. A separate copy of Attachment L shall be prepared for each step series requiring multiple performance and all copies shall be attached to this procedure when the procedure is complete.

5.0 PROCEDURE

5.1 IF in CTS: cold shutdown (ITS: Modes 5, 6, or defueled),
THEN verify the following:
(Otherwise mark this step as N/A)

- The Steam Generators are drained to a level sufficient to accept FW flows.
- The RCS is NOT solid.

N/A ✓
N/A ✓

NOTE: When operability testing of Train A is NOT required, then N/A Steps 5.2 through 5.38.

5.2 TRAIN A TEST

5.2.1 IF performing Section 5.2,
THEN the following auxiliary feedwater pumps with their associated flow paths, are operable as applicable.
(N/A the step that is NOT applicable.)

a. For two-unit operation:

P-38B, 1P-29, and 2P-29 are operable.

✓

b. 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.

N/A ✓

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

INITIALS

5.2.2 IF sufficient qualified operators are NOT available on shift to support Step 5.2.3, THEN consider the equipment unavailable per Maintenance Rule AND N/A Step 5.2.3.

N/A *g*

5.2.3 Assign a Level 4 Dedicated Operator 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)

g

5.3 Enter a CTS: LCO (ITS: Action Condition) for P-38A.
(N/A this step if NOT required for current plant conditions per CTS: Technical Specification 15.3.4. (ITS: 3.7.5))

TIME 2:11Y DATE 8/20/01

g

5.4 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 *g*

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

INITIALS

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

5.15 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.

Q/TB

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

Q

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

Q/TB

5.18 Check the packing glands for excessive leakage or overheating.

Q/TB

5.19 Check pump and motor for unusual noise or overheating.

Q/TB

5.20 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.

Q/TB

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

INITIALS

NOTE: DSS permission is required to proceed with Step 5.39.

NOTE: When operability testing of Train B is NOT required, then N/A Steps 5.39 through 5.75.

5.39 TRAIN B TEST

5.39.1 IF performing Section 5.39,
THEN the following auxiliary feedwater pumps with their
associated flow paths, are operable as applicable.
(N/A the step that is NOT applicable.)

a. For two-unit operation:

P-38A, 1P-29, and 2P-29 are operable.

g

b. 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.

N/A g

5.39.2 IF sufficient qualified operators are NOT available on shift to
support Step 5.39.3,
THEN consider the equipment unavailable per Maintenance Rule
AND N/A Step 5.39.3.

N/A g

5.39.3 Assign a Level 4 Dedicated Operator 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 K, if required. (Otherwise mark this step as N/A)

N/A g

5.40 Enter a CTS: LCO {ITS: Action Condition} for P-38B.
(N/A this step if NOT required for current plant conditions per
Technical Specification 15.3.4 {ITS: 3.7.5})
TIME 0500 DATE 8/20/01

g

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

N/A g

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

INITIALS

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

5.52 Verify P-38B suction pressure as read on PI-4017A is greater than the 7.0 psig low suction pressure alarm setpoint. Record on Attachment F.

Q / JB

5.53 Check AF-4014, P-38B AFP Mini-Recirc Control, mini-recirculation valve open.

Q

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

Q / JB

5.55 Check packing glands for excessive leakage or overheating.

Q / JB

5.56 Check the pump and motor for unusual noise or overheating.

Q / JB

5.57 WHEN P-38B has run for five-minutes,
THEN record the following data on Attachment F.

- PI-4018, Pump Discharge Pressure
- PI-4017A, Pump Suction Pressure
- FIT-4050B, Mini-Recirculation Flow
- Recirculation Flow Vibration Data

Q / JB

POINT BEACH NUCLEAR PLANT
INSERVICE TESTS

IT 10
SAFETY RELATED
Revision 43
July 5, 2001

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

Remarks:

④ P-38B was considered unusable during IT-10
because this was a PMT run.

Performed By:

Bruce Tesarik Performer (Print and Sign)	Bruce Tesarik	7-17-01 1445 Date Time	BT Initials
Lee R. Stock Performer (Print and Sign)	Lee R. Stock	8-20-01 2034 Date Time	LR Initials
DK Winty Performer (Print and Sign)	DK Winty	8/20/01 2229 Date Time	DW Initials
P.J. Matson Performer (Print and Sign)	P.J. Matson	8/20/01 2321 Date Time	PM Initials
M. Miller Performer (Print and Sign)	M. Miller	8/20/01 2322 Date Time	MM Initials
Performer (Print and Sign)		/	
Performer (Print and Sign)			
Reviewed By:			
P.J. Matson Reviewer (Print and Sign)	P.J. Matson	8/20/01 2321 Date Time	PM Initials

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 on 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
5.12.3	PI-4010A, P-38A AFP Suction Pressure	psig	15.7	N/A	Q/JB
5.15	PI-4010A, P-38A AFP Suction Pressure	psig	15.6	>7	Q/JB
5.20	PI-4011 Pump Discharge Pressure	psig	1305	N/A	Q/JB
5.20	PI-4010A, P-38A AFP Suction Pressure	psig	15.6	N/A	Q/JB
5.20	FIT-4050A, Mini-Recirc Flow	gpm	76.4	N/A	Q/JB
5.20	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 ac	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 ac	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 ac	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 ac	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 F
P-38B, AFW PUMP PERFORMANCE DATA (RECIRCULATION FLOW)

NOTE 1: The data recorded on Attachment F 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
5.49.3	PI-4017A, P-33B AFP Suction Pressure	psig	16.15	N/A	9/15B
5.52	PI-4017A, P-38B AFP Suction Pressure	psig	16	>7	9/15B
5.57	PI-4018 Pump Discharge Pressure	psig	1350	N/A	9/15B
5.57	PI-4017A, P-38B AFP Suction Pressure	psig	16	N/A	9/15B
5.57	FIT-4050B, Mini-Recirc Flow	gpm	74.7	N/A	9/15B
5.57	Recirculation Flow Vibration Data				
			INSTRUMENT	UNITS	READINGS
	P38B 1V ips	Note 2	Micro-logger	IPS pk	
	P38B 1H ips	Note 2	Micro-logger	IPS pk	
	P38B 1H ae	Note 2	Micro-logger	G env	
	P38B 1H acc	Note 2	Micro-logger	G pk	
	P38B 1A ips	Note 2	Micro-logger	IPS pk	
	P38B 2V ips	Note 2	Micro-logger	IPS pk	
	P38B 2H ips	Note 2	Micro-logger	IPS pk	
	P38B 2H ae	Note 2	Micro-logger	G env	
	P38B 2H acc	Note 2	Micro-logger	G pk	
	P38B 2A ips	Note 2	Micro-logger	IPS pk	
	P38B 3V ips	Note 2	Micro-logger	IPS pk	
	P38B 3H ips	Note 2	Micro-logger	IPS pk	
	P38B 3H ae	Note 2	Micro-logger	G env	
	P38B 3H acc	Note 2	Micro-logger	G pk	
	P38B 4V ips	Note 2	Micro-logger	IPS pk	
	P38B 4H ips	Note 2	Micro-logger	IPS pk	
	P38B 4H ae	Note 2	Micro-logger	G env	
	P38B 4H acc	Note 2	Micro-logger	G pk	
	P38B 4A ips	Note 2	Micro-logger	IPS pk	