

Point Beach Nuclear Plant
PROCEDURE RECORD AND FIELD COPY TRACKING

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Procedure Number IT - 10 Unit PB0 Revision Number 43

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

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

By [Signature]

Date 11/15/01

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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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A/130

MICROFILMED

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

992 9227 _____

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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. 992 9227

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
Equipment ID _____
WO No(s). _____
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.

OK

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.

OK

4.4 Chemistry notified about auxiliary feed injection.

OK

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})

OK

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

Revision 43
July 5, 2001

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 10/11/12/14 TIME 2013 DATE 11/15/01

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. N/A OK
- The RCS is NOT solid. N/A OK

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. OK

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 OK

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 OK

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)

2015

OK

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 2015 DATE 11/15/01

OK

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

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.
15.7 psig

OK For KTA

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

OK

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

77 gpm

OK For KTA

5.18 Check the packing glands for excessive leakage or overheating.

OK For KTA

5.19 Check pump and motor for unusual noise or overheating.

OK For KTA

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 Variation Data.

OK For KTA

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.

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.

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.

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)

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 2343 DATE 11/15/01

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.)

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.

A F KTA

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

A

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

A F KTA

5.55 Check packing glands for excessive leakage or overheating.

A F KTA

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

A F KTA

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

A

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 |
|-------------|--------------------------------------|--------------|---------|---------------------|------------|
| 5.12.3 | PI-4010A, P-38A AFP Suction Pressure | psig | 15.8 | N/A | DKA F2 KTA |
| 5.15 | PI-4010A, P-38A AFP Suction Pressure | psig | 15.7 | >7 | DKA F2 KTA |
| 5.20 | PI-4011 Pump Discharge Pressure | psig | 1310 | N/A | DKA F2 KTA |
| 5.20 | PI-4010A, P-38A AFP Suction Pressure | psig | 15.7 | N/A | DKA F2 KTA |
| 5.20 | FIT-4050A, Mini-Recirc Flow | gpm | 77 | N/A | DKA F2 KTA |
| 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 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 | | |

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)

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-38B AFW Suction Pressure | psig | 16 | N/A | Q |
| 5.52 | PI-4017A, P-38B AFW Suction Pressure | psig | 15.8 | >7 | Q & KTA |
| 5.57 | PI-4018 Pump Discharge Pressure | psig | 1305 | N/A | Q & KTA |
| 5.57 | PI-4017A, P-38B AFW Suction Pressure | psig | 15.8 | N/A | Q & KTA |
| 5.57 | FTT-4050B, Mini-Recirc Flow | gpm | 74 | N/A | Q & KTA |
| 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 ac | 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 ac | 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 ac | 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 ac | Note 2 | Micro-logger | G env | |
| | P38B 4H acc | Note 2 | Micro-logger | G pk | |
| | P38B 4A ips | Note 2 | Micro-logger | IPS pk | |