



STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
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NOTES

- Steps in this procedure may be performed out of order as deemed necessary by the DSS or his designee.
- Entry into EOP-0, REACTOR TRIP OR SAFETY INJECTION, is not required.

1 Initiate Manual Reactor Trip For Both Units

- Unit 1 Reactor - TRIPPED
- Unit 2 Reactor - TRIPPED

2 Ensure Both Units Turbine - TRIPPED

- Unit 1 Turbine - TRIPPED
- Unit 2 Turbine - TRIPPED

3 Shut Main Steam Isolation Valves

- 1MS-2018
- 1MS-2017
- 2MS-2018
- 2MS-2017

4 Adjust Atmospheric Steam Dump Controllers To 1005 PSIG

- 1HC-468
- 1HC-478
- 2HC-468
- 2HC-478

5 Align Charging Pump Suctions To RWST:

a. Open RWST to charging pump suction MOV's

- 1CV-112B
- 2CV-112B

b. Shut VCT outlet to charging pump suction MOV's

- 1CV-112C
- 2CV-112C

CONTROL ROOM INACCESSIBILITY

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
6	Start Turbine-Driven AFW Pumps <ul style="list-style-type: none"><li>• 1P-29</li><li>• 2P-29</li></ul>	
7	Place Motor-Driven AFW Discharge Valves In - MANUAL PULLOUT AND CLOSE <ul style="list-style-type: none"><li>• AF-4021 for S/G 1B</li><li>• AF-4022 for S/G 2A</li></ul>	
<p><u>CAUTION</u></p> <p>Placing Main Feed Pump control switches in pull-out will defeat auto start of the Motor Driven AFW pumps.</p>		
8	Stop Main Feedwater Pumps And Place Control Switches In - AUTO <ul style="list-style-type: none"><li>• 1P-28A</li><li>• 1P-28B</li><li>• 2P-28A</li><li>• 2P-28B</li></ul>	
9	Stop Heater Drain Tank Pumps <ul style="list-style-type: none"><li>• 1P-27A</li><li>• 1P-27B</li><li>• 1P-27C</li><li>• 2P-27A</li><li>• 2P-27B</li><li>• 2P-27C</li></ul>	
10	Ensure Only One Condensate Pump Running Per Unit <ul style="list-style-type: none"><li>o P-25A</li></ul> <p style="text-align: center;"><u>OR</u></p> <ul style="list-style-type: none"><li>o P-25B</li></ul>	
11	Evacuate Control Room And Obtain Copies Of This Procedure From The Work Control Center	
12	Notify CAS Of Control Room Evacuation	

CONTROL ROOM INACCESSIBILITY

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
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13 Dispatch Four Licensed Operators To Perform Local Actions:

- a. Attachment A. Unit 1 AFW PUMP OPERATOR
- b. Attachment B. Unit 2 AFW PUMP OPERATOR
- c. Attachment C. UNIT 1 CHARGING PUMP OPERATOR
- d. Attachment D. UNIT 2 CHARGING PUMP OPERATOR

14 Dispatch Operators To Perform Local Actions:

- a. Attachment E. TURBINE HALL OPERATOR
- b. Attachment F. PAB OPERATOR

15 Direct STA To Report To TSC And Implement Emergency Plan

\*\*\*\*\*  
\* 16 Locally Monitor Operating Equipment \*  
\* Until Control Room Can Be Re-Entered \*  
\*\*\*\*\*

\*\*\*\*\*  
\* 17 Check Control Room - HABITABLE WHEN Control Room can be re-entered. \*  
\* THEN go to EOP-0, REACTOR TRIP OR \*  
\* SAFETY INJECTION. \*  
\*\*\*\*\*

-END-

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
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ATTACHMENT A  
(Page 1 of 2)  
Unit 1 AFW PUMP OPERATOR

CAUTION

To prevent AFW pump damage, monitor and maintain minimum AFW discharge flow greater than 75 gpm or stop the affected AFW Pump as necessary to control S/G levels.

A1 Check Turbine-Driven AFW Pump -  
RUNNING

- 1P-29

Direct PAB Operator to locally align  
steam supply to turbine-driven AFW  
pump:

- o Locally open B S/G steam supply  
valve.
  - 1MS-2019
- o Locally open A S/G steam supply  
valve.
  - 1MS-2020

\*\*\*\*\*

\* A2 Manually Control A S/G Level: \*

\* a. Engage clutch and throttle \*

\* 1AF-4001 to maintain S/G level \*

\* -BETWEEN 300 INCHES AND \*

\* 330 INCHES \*

- 1LI-460-AA on 1RK-38 \*
- 1LI-460-BA on 1RK-38 \*

\*\*\*\*\*

\*\*\*\*\*

\* A3 Manually Control B S/G Level: \*

\* a. Engage clutch and throttle \*

\* 1AF-4000 to maintain S/G level \*

\* -BETWEEN 300 INCHES AND \*

\* 330 INCHES \*

- 1LI-470-AA on 1RK-38 \*
- 1LI-470-BA on 1RK-38 \*

\*\*\*\*\*

TCN 2002-0764

CONTROL ROOM INACCESSIBILITY

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
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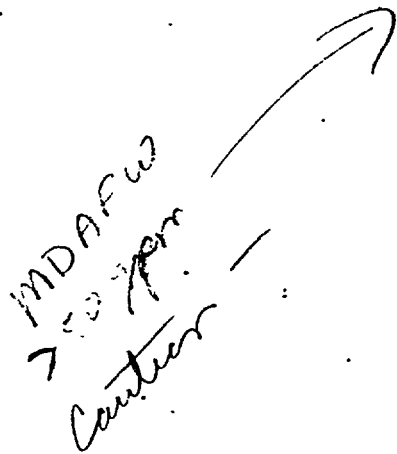
ATTACHMENT A  
(Page 2 of 2)  
Unit 1 AFW PUMP OPERATOR

A4 Maintain S/G Levels Between  
300 Inches And 330 Inches Using  
Turbine-Driven AFW Pump

IF level can NOT be maintained using  
turbine-driven AFW pump. THEN  
maintain S/G "1A" level using  
motor-driven AFW pump as follows:

- a. At N-01. place P-38A in - LOCAL.
- b. At N-01. depress start  
pushbutton.
- c. Open AF-4023.
- d. Throttle 1AF-31 to maintain "1A"  
S/G level - BETWEEN  
300 INCHES AND 330 INCHES
  - 1LI-460AA
  - 1LI-460BA
- e. Inform DOS that "1B" S/G  
Atmospheric Steam Dump should be  
isolated.
  - 1MS-2015

*MDAFW  
7:50 am  
Caution*



A5 Inform DOS That S/G Levels Are -  
BETWEEN 300 INCHES AND 330 INCHES

-END-

CONTROL ROOM INACCESSIBILITY

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
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ATTACHMENT B  
(Page 1 of 2)  
Unit 2 AFW PUMP OPERATOR

CAUTION

To prevent AFW pump damage, monitor and maintain minimum AFW discharge flow greater than 75 gpm or stop the affected AFW Pump as necessary to control S/G levels.

B1 Check Turbine-Driven AFW Pump -  
RUNNING

- 2P-29

Direct PAB Operator to locally align  
steam supply to turbine-driven AFW  
pump:

- o Locally open B S/G steam supply  
valve.
  - 2MS-2019
- o Locally open A S/G steam supply  
valve.
  - 2MS-2020

\*\*\*\*\*  
\* B2 Manually Control A S/G Level: \*  
\* \* \* \* \*  
\* a. Engage clutch and throttle \*  
\* 2AF-4001 to maintain S/G level \*  
\* -BETWEEN 300 INCHES AND \*  
\* 330 INCHES \*  
\* \* \* \* \*  
\* • 2LI-460-AA on 2RK-38 \*  
\* • 2LI-460-BA on 2RK-38 \*  
\*\*\*\*\*

\*\*\*\*\*  
\* B3 Manually Control B S/G Level: \*  
\* \* \* \* \*  
\* a. Engage clutch and throttle \*  
\* 2AF-4000 to maintain S/G level \*  
\* -BETWEEN 300 INCHES AND \*  
\* 330 INCHES \*  
\* \* \* \* \*  
\* • 2LI-470-AA on 2RK-38 \*  
\* • 2LI-470-BA on 2RK-38 \*  
\*\*\*\*\*

TCLW 2002-0764

CONTROL ROOM INACCESSIBILITY

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
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ATTACHMENT B  
(Page 2 of 2)  
Unit 2 AFW PUMP OPERATOR

B4 Maintain S/G Levels Between  
300 Inches And 330 Inches Using  
Turbine-Driven AFW Pump

IF level can NOT be maintained using  
turbine-driven AFW pump, THEN  
maintain S/G "2B" level using  
motor-driven AFW pump as follows:

- a. At N-01, place P-38B in - LOCAL.
- b. At N-01, depress start  
pushbutton.
- c. Open AF-4020.
- d. Throttle AF-45 to maintain "2B"  
S/G level - BETWEEN  
300 INCHES AND 330 INCHES
  - 2LI-460AA
  - 2LI-460BA
- e. Inform DOS that "2A" S/G  
Atmospheric Steam Dump should be  
isolated.
  - 2MS-2016

*M AFW  
250 gpm  
Caution*

B5 Inform DOS That S/G Levels Are -  
BETWEEN 300 INCHES AND 330 INCHES

-END-



CONTROL ROOM INACCESSIBILITY

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
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ATTACHMENT C  
(Page 1 of 2)  
UNIT 1 CHARGING PUMP OPERATOR

C1 Ensure Charging Pump Suction -  
ALIGNED TO RWST:

- RWST to charging pump suction MOV  
- OPEN
- 1CV-112B
- VCT outlet to charging pump  
suction MOV - SHUT
- 1CV-112C

Align charging pump suction to RWST:

- a. Open RWST to charging pump  
suction.
  - 1CV-358
- b. Shut VCT to charging pump suction  
MOV.
  - 1CV-112C

CAUTION

Placing pressurizer heaters in local defeats heater low level cutout.

```
*****
* C2 Check PZR Pressure - BETWEEN Locally operate back-up heaters to *
* 2200 PSIG AND 2250 PSIG maintain PZR pressure - BETWEEN *
* * 2200 PSIG AND 2250 PSIG *
* • PI-449B *
* * o Bank C *
* * o Bank D *
*****
```

CONTROL ROOM INACCESSIBILITY

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
------	--------------------------	-----------------------

ATTACHMENT C  
(Page 2 of 2)  
UNIT 1 CHARGING PUMP OPERATOR

C3 Check If Letdown Should Be Established:

a. Check PZR level - GREATER THAN 16% AND RISING

- LI-433C

b. Establish letdown:

1) Inside 1B52-426M. locally open letdown line isolation

- 1RC-427

2) Locally open letdown isolations as necessary

- o 1CV-200A
- o 1CV-200B
- o 1CV-200C

a. WHEN PZR level greater than 16%. THEN do Step C3.b.

b. Perform the following:

a) Operate charging pumps as necessary to maintain PZR level - BETWEEN 20% AND 45%

- OI-15, CHARGING PUMP LOCAL CONTROL STATION OPERATION

b) Go to Step C5.

NOTES

- PZR level may require time to stabilize after letdown restoration.
- Charging pumps should remain running in auto/remote if possible.

\*\*\*\*\*  
\* C4 Check PZR Level - BETWEEN 20% AND Operate charging pumps as necessary . \*  
\* 25% to maintain PZR level- BETWEEN \*  
\* 20% AND 45% \*  
\* • LI-433C \*  
\* • OI 15, CHARGING PUMP LOCAL CONTROL \*  
\* STATION OPERATION \*  
\*\*\*\*\*

C5 Inform DOS Of The Following:

- PZR level
- PZR pressure

-END-

CONTROL ROOM INACCESSIBILITY

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
------	--------------------------	-----------------------

ATTACHMENT D  
(Page 1 of 2)  
UNIT 2 CHARGING PUMP OPERATOR

- |   |   |
|---|---|
| <p>D1 Ensure Charging Pump Suction -<br/>ALIGNED TO RWST:</p> <ul style="list-style-type: none"><li>• RWST to charging pump suction MOV<br/>- OPEN</li><li>• 2CV-112B</li><li>• VCT outlet to charging pump<br/>suction MOV - SHUT</li><li>• 2CV-112C</li></ul> | <p>Align charging pump suction to RWST:</p> <ul style="list-style-type: none"><li>a. Open RWST to charging pump<br/>suction.<ul style="list-style-type: none"><li>• 2CV-358</li></ul></li><li>b. Shut VCT to charging pump suction<br/>MOV.<ul style="list-style-type: none"><li>• 2CV-112C</li></ul></li></ul> |
|---|---|

CAUTION

Placing pressurizer heaters in local defeats heater low level cutout.

```
*****
* D2 Check PZR Pressure - BETWEEN Locally operate back-up heaters to *
* 2200 PSIG AND 2250 PSIG maintain PZR pressure - BETWEEN *
* 2200 PSIG AND 2250 PSIG *
* • PI-449B *
* o Bank C *
* o Bank D *
*****
```

CONTROL ROOM INACCESSIBILITY

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
------	--------------------------	-----------------------

ATTACHMENT D  
 (Page 2 of 2)  
 UNIT 2 CHARGING PUMP OPERATOR

D3 Check If Letdown Should Be Established:

a. Check PZR level - GREATER THAN 16% AND RISING

- LI-433C

b. Establish letdown:

1) Inside 2B52-427J, locally open letdown line isolation

- 2RC-427

2) Locally open letdown isolations as necessary

- o 2CV-200A
- o 2CV-200B
- o 2CV-200C

a. WHEN PZR level greater than 16%. THEN do Step D3.b.

b. Perform the following:

a) Operate charging pumps as necessary to maintain Pzr level - BETWEEN 20% AND 45%

- OI-15, CHARGING PUMP LOCAL CONTROL STATION OPERATION

b) Go to Step D5.

NOTES

- PZR level may require time to stabilize after letdown restoration.
- Charging pumps should remain running in auto if possible.

```

*****
* D4 Check PZR Level - BETWEEN Operate charging pumps as necessary *
* 20% AND 25% to maintain PZR level- BETWEEN *
* * 20% AND 45% *
* * * *
* • LI-433C *
* * * *
* • OI 15, CHARGING PUMP LOCAL CONTROL *
* STATION OPERATION *
*****

```

D5 Inform DOS Of The Following:

- PZR level
- PZR pressure

CONTROL ROOM INACCESSIBILITY

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
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ATTACHMENT E  
(Page 1 of 3)  
TURBINE HALL OPERATOR

NOTE

All or some of the actions performed in this attachment may have been performed in the control room prior to evacuation.

- |   |  |
|---|--|
| <p>E1 Check Both Reactors Tripped Prior To Evacuating Control Room</p> <ul style="list-style-type: none"><li>• Unit 1 Reactor - TRIPPED</li><li>• Unit 2 Reactor - TRIPPED</li></ul>  | <p>Perform the following:</p> <ul style="list-style-type: none"><li>a. Open reactor trip breakers for BOTH UNITS.<ul style="list-style-type: none"><li>• Unit 1 reactor trip breakers- OPEN</li><li>• Unit 2 reactor trip breakers- OPEN</li></ul></li><li>b. Open reactor trip bypass breakers for BOTH UNITS.<ul style="list-style-type: none"><li>• Unit 1 reactor trip bypass breakers - OPEN</li><li>• Unit 2 reactor trip bypass breakers - OPEN</li></ul></li></ul> |
| <p>E2 Check Both Turbines Tripped Prior To Evacuating Control Room</p> <ul style="list-style-type: none"><li>• Unit 1 Turbine - TRIPPED</li><li>• Unit 2 Turbine - TRIPPED</li></ul>  | <p>Perform the following:</p> <ul style="list-style-type: none"><li>a. At Unit 1 Front Standard, rotate trip lever to trip position.</li><li>b. At Unit 2 Front Standard, rotate trip lever to trip position.</li></ul>  |
| <p>E3 Inform DOS Both Reactors And Both Turbines Are Tripped</p>  |  |
| <p>E4 At 1A01. Check The Following Pumps Stopped Prior To Evacuating The Control Room:</p> <ul style="list-style-type: none"><li>• 1P-28A Steam Generator Feed Pump</li><li>• 1P-27A Heater Drain Tank Pump</li><li>• 1P-27C Heater Drain Tank Pump</li></ul> | <p>Locally open breakers as necessary per Attachment H. LOCAL BREAKER OPERATION.</p> <ul style="list-style-type: none"><li>• 1A52-05</li><li>• 1A52-08</li><li>• 1A52-09</li></ul>   |

CONTROL ROOM INACCESSIBILITY

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
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ATTACHMENT E  
(Page 2 of 3)  
TURBINE HALL OPERATOR

- |     |  |  |
|-----|--|--|
| E5  | At 1A02. Check The Following Pumps Stopped Prior To Evacuating The Control Room:<br><br>• 1P-28B Steam Generator Feed Pump<br>• 1P-27B Heater Drain Tank Pump                                    | Locally open breakers as necessary per Attachment H. LOCAL BREAKER OPERATION.<br><br>• 1A52-13<br>• 1A52-10              |
| E6  | At 2A01. Check The Following Pumps Stopped Prior To Evacuating The Control Room:<br><br>• 2P-28A Steam Generator Feed Pump<br>• 2P-27A Heater Drain Tank Pump<br>• 2P-27C Heater Drain Tank Pump | Locally open breakers as necessary per Attachment H. LOCAL BREAKER OPERATION.<br><br>• 2A52-23<br>• 2A52-20<br>• 2A52-19 |
| E7  | At 2A02. Check The Following Pumps Stopped Prior To Evacuating The Control Room:<br><br>• 2P-28B Steam Generator Feed Pump<br>• 2P-27B Heater Drain Tank Pump                                    | Locally open breakers as necessary per Attachment H. LOCAL BREAKER OPERATION.<br><br>• 2A52-30<br>• 2A52-33              |
| E8  | At 1A01 or 1A02. Check One Unit 1 Condensate Pump Breaker - OPEN<br><br>o 1A52-07 for 1P-25A<br><br><u>OR</u><br><br>o 1A52-11 for 1P-25B  | Locally open breaker per Attachment H. LOCAL BREAKER OPERATION.  |
| E9  | At 2A01 or 2A02. Check One Unit 2 Condensate Pump Breaker - OPEN<br><br>o 2A52-21 for 2P-25A<br><br><u>OR</u><br><br>o 2A52-32 for 2P-25B  | Locally open breaker per Attachment H. LOCAL BREAKER OPERATION.  |
| E10 | Inform DOS Of The Following:<br><br>• Main Feedwater pumps - STOPPED<br>• Heater Drain Tank pumps - STOPPED<br>• One Condensate pump - RUNNING   |  |

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
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ATTACHMENT E  
(Page 3 of 3)  
TURBINE HALL OPERATOR

- |     |   |  |
|-----|---|--|
| E11 | Check CST Level - GREATER THAN 15 FT  | Direct Water Treatment Operator to commence filling CST. |
|     | <ul style="list-style-type: none"><li>• LI-4025 for T-24A</li><li>• LI-4031 for T-24B</li></ul> |  |

-END-

CONTROL ROOM INACCESSIBILITY

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
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ATTACHMENT F  
(Page 1 of 1)  
PAB OPERATOR

- |    |   |  |
|----|---|--|
| F1 | Check Unit 1 MSIVs Were Shut Prior To Control Room Evacuation<br><ul style="list-style-type: none"><li>• 1MS-2018 for S/G 1A</li><li>• 1MS-2017 for S/G 1B</li></ul>                    | Shut Unit 1 MSIVs as follows:<br><ul style="list-style-type: none"><li>a. At 1RK-33, depress both pushbuttons.<ul style="list-style-type: none"><li>• 1MS PB-2018A, train A</li><li>• 1MS PB-2018B, train B</li></ul></li><li>b. At 1RK-34, depress both pushbuttons.<ul style="list-style-type: none"><li>• 1MS PB-2017A, train A</li><li>• 1MS PB-2017B, train B</li></ul></li></ul> |
| F2 | Check Unit 2 MSIVs Were Shut Prior To Control Room Evacuation<br><ul style="list-style-type: none"><li>• 2MS-2018 for S/G 2A</li><li>• 2MS-2017 for S/G 2B</li></ul>                    | Shut Unit 2 MSIVs as follows:<br><ul style="list-style-type: none"><li>a. At 2RK-33, depress both pushbuttons.<ul style="list-style-type: none"><li>• 2MS PB-2018A, train A</li><li>• 2MS PB-2018B, train B</li></ul></li><li>b. At 2RK-34, depress both pushbuttons.<ul style="list-style-type: none"><li>• 2MS PB-2017A, train A</li><li>• 2MS PB-2017B, train B</li></ul></li></ul> |
| F3 | De-Energize Unit 1 Motor-Driven AFW Pump Discharge MOV's<br><ul style="list-style-type: none"><li>• Open Bkr. 1B52-328F for AF-4023</li><li>• Open Bkr. 1B52-428C for AF-4021</li></ul> |  |
| F4 | De-Energize Unit 2 Motor-Driven AFW Pump Discharge MOV's<br><ul style="list-style-type: none"><li>• Open Bkr. 2B52-328C for AF-4022</li><li>• Open Bkr. 2B52-428F for AF-4020</li></ul> |  |
| F5 | Inform DOS Unit 1 And Unit 2 Motor-Driven AFW Pump Discharge MOV's - DE-ENERGIZED   |  |

-END-



CONTROL ROOM INACCESSIBILITY

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
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ATTACHMENT G  
(Page 1 of 1)  
DOS CHECKLIST

G1 Check the following Unit 1 actions completed:

- | COMPLETED | Unit 1 ACTION PERFORMED                              |
|-----------|--|
| ( )       | Reactor tripped                                      |
| ( )       | Motor-Driven AFW pump discharge valves breakers open |
| ( )       | PZR level - 20% to 45%                               |
| ( )       | PZR pressure - 2200 PSIG to 2250 PSIG                |
| ( )       | Turbine tripped                                      |
| ( )       | Both Main Feedwater Pumps stopped                    |
| ( )       | All Heater Drain Pumps stopped                       |
| ( )       | One Condensate Pump running                          |
| ( )       | All S/G levels between 300 inches and 330 inches     |

G2 Check the following Unit 2 actions completed:

- | COMPLETED | Unit 2 ACTION PERFORMED                              |
|-----------|--|
| ( )       | Reactor tripped                                      |
| ( )       | Motor-Driven AFW pump discharge valves breakers open |
| ( )       | PZR level - 20% to 45%                               |
| ( )       | PZR pressure - 2200 PSIG to 2250 PSIG                |
| ( )       | Turbine tripped                                      |
| ( )       | Both Main Feedwater Pumps stopped                    |
| ( )       | All Heater Drain Pumps stopped                       |
| ( )       | One Condensate Pump running                          |
| ( )       | All S/G levels between 300 inches and 330 inches.    |

-END-

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
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ATTACHMENT H  
(Page 1 of 1)  
LOCAL BREAKER OPERATION

H1 Local Opening Of A 4160 Vac Breaker:

- a. Open breaker cubicle door.
- b. Check mechanical indicator indicates closed.
- c. Open breaker by performing one of the following:
  - o Depress trip/open push plate.

OR

- o Depress trip/open button.

OR

- o Lift red tab on open coil.

- d. Check mechanical indicator indicates open.
- e. Close breaker cubicle door.

H2 Local Opening Of A 480 Vac Breaker:

- a. Check mechanical indicator indicates closed.
- b. Depress square trip push button.
- c. Check mechanical indicator indicates open.

-END-