

Approval  
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Date  
2/14/90

Vogtle Electric Generating Plant  
NUCLEAR OPERATIONS



Georgia Power

Unit COMMON

Procedure No.  
18020-C  
Revision No.  
3  
Page No.  
1 of 5

MIDLOOP STEPS  
SAND, 4

05-87-90

ABNORMAL OPERATING PROCEDURE

LOSS OF COMPONENT COOLING WATER

INFORMATION ONLY

PURPOSE

This procedure addresses the loss of one CCW Train with both RHR and SFPC Systems in operation.

SYMPTOMS

- CCW TRAIN A(B) LO HDR PRESS Annunciator.
- CCW TRAIN A(B) LO FLOW Annunciator.
- CCW TRAIN A(B) SURGE TANK LO-LO LVL Annunciator.
- CCW TRAIN A(B) RHR PMP SEAL LO FLOW Annunciator.
- NSCW TRAIN A(B) LO HDR PRESS Annunciator.
- NSCW CCW ACCW TRAIN A(B) TEMP ALARM Annunciator.
- CCW TRAIN A(B) RHR HX HI FLOW Annunciator.
- CCW TRAIN A(B) RHR HX LO FLOW Annunciator.

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ACTION/EXPECTED RESPONSERESPONSE NOT OBTAINED

1. Verify two CCW pumps in the affected train - RUNNING.

1. Start two CCW pumps in the affected train.

2. Verify CCW train operation:

- Flow - Approximately 9000 GPM.
- Pressure - Approximately 90 psig.

2. Stop the CCW pumps in the affected train. Place the unaffected train in service by initiating 13715, COMPONENT COOLING WATER SYSTEM.

IF one train of CCW can NOT be placed in service, THEN initiate 18019-C, LOSS OF RESIDUAL HEAT REMOVAL

-AND-

18030-C, LOSS OF SPENT FUEL POOL LEVEL OR COOLING.

3. Verify NSCW Supply Header Total Flow Approximately 18000 Gpm As Read On FI-1640B (1641B).

3. Initiate 18021-C, LOSS OF NUCLEAR SERVICE COOLING WATER SYSTEM.

**CAUTION**

RHR Pump seal cooling is provided by the respective CCW Train. Damage to the seal assembly may result from sustained operation of the pump without CCW flow to the seal cooler.

4. Place the non-affected RHR Train in operation by initiating 13011, RESIDUAL HEAT REMOVAL SYSTEM.

4. Initiate 18019-C, LOSS OF RESIDUAL HEAT REMOVAL and applicable ACTION items for:

- Tech Spec 3.4.1.3
- Tech Spec 3.4.1.4.1
- Tech Spec 3.4.1.4.2
- Tech Spec 3.9.8.1
- Tech Spec 3.9.8.2

ACTION/EXPECTED RESPONSE

5. Verify the CCW train A(B) surge tank low level Annunciator is - Reset Or Level Is Rising.

6. Verify the affected CCW train has - No Unexpected Leakage.

RESPONSE NOT OBTAINED

5. Verify Demineralized Water Makeup Valve LV-1850(1851) is open.

-OR-

Manually open surge tank makeup from RMWST LV-1848 (1849).

6. Isolate the leak by:
- Stop the pumps in the affected train and place the control switches in PULL-TO-LOCK.
  - Isolate makeup water to the surge tank.
  - Close system isolation valves as necessary.

ACTION/EXPECTED RESPONSERESPONSE NOT OBTAINED

7. Verify the affected CCW Heat Exchanger cooling capacity - Not Impaired By:

- a. Venting the heat exchanger tube and shell sides of trapped air or gases per 13715, COMPONENT COOLING WATER SYSTEM.

- a. Continue venting until all trapped air or gases are removed.

NOTE

Heat exchanger plugging or fouling may be indicated by a higher than normal pressure drop, a lower than normal flowrate or a lower than normal temperature rise in the cooling water.

- b. Check the tube side pressure drop - Less Than Or Equal To 6 Psid.
- c. Check NSCW flow through the CCW Heat Exchanger on local flow indicator FIT-1720A (1721A) - Equal To Or Greater Than 9000 Gpm.
- d. Check the NSCW temperature rise across the CCW Heat Exchanger on local temperature indicators - approximately 4°F.

- b. Initiate 18021-C, LOSS OF NUCLEAR SERVICE COOLING WATER SYSTEM.
- c. Initiate 18021-C, LOSS OF NUCLEAR SERVICE COOLING WATER SYSTEM.
- d. Initiate 18021-C, LOSS OF NUCLEAR SERVICE COOLING WATER SYSTEM.

• TI-1712(1713)

• TI-1716(1717)

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18020-C

3

5 of 5

ACTION/EXPECTED RESPONSERESPONSE NOT OBTAINED

8. Restore the affected CCW loop to service by initiating 13715, COMPONENT COOLING WATER SYSTEM.

8. Implement the applicable Tech. Spec. ACTION statement for the current plant condition:

- Tech Spec 3.4.1.4.1
- Tech Spec 3.4.1.4.2
- Tech Spec 3.9.8.1
- Tech Spec 3.9.8.2

9. Verify Spent Fuel Pool temperature is - Less Than 130°F.

9. Place the non-affected SFPC Train in service by initiating 13719, SPENT FUEL POOL COOLING AND PURIFICATION SYSTEM.

10. Verify Fuel Handling Bldg. Normal HVAC Units 1541-A7-001(002) and 1541-N7-001(002) - In Operation.

10. Start Fuel Pool Area Recirculating Air Handling Unit 1541-A7-003(004) by initiating 13320, FUEL HANDLING BUILDING HVAC SYSTEM.

11. Return to the UOP In effect.

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END OF PROCEDURE TEXT