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JOSEPH A. WIDAY
VICE PRESIDENT & PLANT MANAGER
GINNA STATION

May 21, 2002

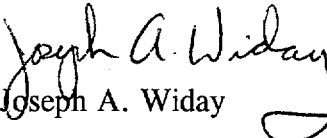
U.S. Nuclear Regulatory Commission
Document Control Desk
Attn: Robert Clark
Project Directorate I
Washington, D.C. 20555

Subject: Emergency Operating Procedures
R.E. Ginna Nuclear Power Plant
Docket No. 50-244

Dear Mr. Clark:

As requested, enclosed are Ginna Station Emergency Operating Procedures.

Very truly yours,


Joseph A. Widay

JAW/jdw

xc: U.S. Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, PA 19406-1415

Ginna USNRC Senior Resident Inspector

Enclosure(s):

AP Index
AP-RHR.2, Rev 11

A002

REPORT NO. 01
REPORT: NPSP0200
DOC TYPE: PRAP

GINNA NUCLEAR POWER PLANT
PROCEDURES INDEX
ABNORMAL PROCEDURE

05/21/02 PAGE: 1

PARAMETERS: DOC TYPES - PRAP PRPT PRRSSP STATUS: EF QU 5 YEARS ONLY:

PROCEDURE NUMBER	PROCEDURE TITLE	REV	EFFECT DATE	LAST REVIEW	NEXT REVIEW	ST
AP-CCW.1	LEAKAGE INTO THE COMPONENT COOLING LOOP	014	01/09/01	05/01/98	05/01/03	EF
AP-CCW.2	LOSS OF CCW DURING POWER OPERATION	015	09/14/01	08/17/99	08/17/04	EF
AP-CCW.3	LOSS OF CCW - PLANT SHUTDOWN	013	09/14/01	08/17/99	08/17/04	EF
AP-CR.1	CONTROL ROOM INACCESSIBILITY	017	05/11/01	01/11/00	01/11/05	EF
AP-CVCS.1	CVCS LEAK	012	05/01/98	05/01/98	05/01/03	EF
AP-CVCS.3	LOSS OF ALL CHARGING FLOW	002	02/11/00	02/26/99	02/26/04	EF
AP-CW.1	LOSS OF A CIRC WATER PUMP	010	07/16/98	05/01/98	05/01/03	EF
AP-ELEC.1	LOSS OF 12A AND/OR 12B BUSES	022	10/31/01	05/01/98	05/01/03	EF
AP-ELEC.2	SAFEGUARD BUSES LOW VOLTAGE OR SYSTEM LOW FREQUENCY	009	03/22/99	03/22/99	03/22/04	EF
AP-ELEC.3	LOSS OF 12A AND/OR 12B TRANSFORMER (BELOW 350 F)	010	10/31/01	05/01/98	05/01/03	EF
AP-ELEC.14/16	LOSS OF SAFEGUARDS BUS 14/16	003	03/15/01	01/22/02	01/22/07	EF
AP-ELEC.17/18	LOSS OF SAFEGUARDS BUS 17/18	003	10/31/01	01/22/02	01/22/07	EF
AP-FW.1	PARTIAL OR COMPLETE LOSS OF MAIN FEEDWATER	012	02/11/00	02/27/98	02/27/03	EF
AP-IA.1	LOSS OF INSTRUMENT AIR	017	12/02/99	05/01/98	05/01/03	EF
AP-PRZR.1	ABNORMAL PRESSURIZER PRESSURE	012	03/26/01	12/02/99	12/02/04	EF
AP-RCC.1	CONTINUOUS CONTROL ROD WITHDRAWAL/INSERTION	007	05/22/01	05/14/98	05/14/03	EF
AP-RCC.2	RCC/RPI MALFUNCTION	009	09/14/01	01/22/02	01/22/07	EF
AP-RCC.3	DROPPED ROD RECOVERY	004	11/16/98	02/27/98	02/27/03	EF
AP-RCP.1	RCP SEAL MALFUNCTION	013	06/09/00	05/01/98	05/01/03	EF
AP-RCS.1	REACTOR COOLANT LEAK	015	09/08/00	05/01/98	05/01/03	EF
AP-RCS.2	LOSS OF REACTOR COOLANT FLOW	010	12/14/98	05/01/98	05/01/03	EF
AP-RCS.3	HIGH REACTOR COOLANT ACTIVITY	009	04/01/02	04/01/02	01/22/07	EF
AP-RCS.4	SHUTDOWN LOCA	011	12/02/99	05/01/98	05/01/03	EF
AP-RHR.1	LOSS OF RHR	016	09/14/01	05/01/98	05/01/03	EF

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REPORT NO. 01
REPORT: NPSP0200
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GINNA NUCLEAR POWER PLANT
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ABNORMAL PROCEDURE

05/21/02 PAGE: 2

PARAMETERS: DOC TYPES - PRAP PRPT PRRSSP STATUS: EF QU 5 YEARS ONLY:

PROCEDURE NUMBER	PROCEDURE TITLE	REV	EFFECT DATE	LAST REVIEW	NEXT REVIEW	ST
AP-RHR.2	LOSS OF RHR WHILE OPERATING AT RCS REDUCED INVENTORY CONDITIONS	011	05/21/02	03/31/00	03/31/05	EF
AP-SG.1	STEAM GENERATOR TUBE LEAK	001	07/18/01	09/08/00	09/08/05	EF
AP-SW.1	SERVICE WATER LEAK	016	10/31/01	06/03/98	06/03/03	EF
AP-SW.2	LOSS OF SERVICE WATER	001	04/01/02	10/31/01	10/31/06	EF
AP-TURB.1	TURBINE TRIP WITHOUT RX TRIP REQUIRED	010	02/12/99	01/22/02	01/22/07	EF
AP-TURB.2	TURBINE LOAD REJECTION	017	02/11/00	05/13/98	05/13/03	EF
AP-TURB.3	TURBINE VIBRATION	010	02/11/00	02/10/98	02/10/03	EF
AP-TURB.4	LOSS OF CONDENSER VACUUM	014	05/01/98	05/01/98	05/01/03	EF
AP-TURB.5	RAPID LOAD REDUCTION	005	06/09/00	06/09/00	06/09/05	EF
TOTAL FOR PRAP	33					

EOP: AP-RHR.2	TITLE: LOSS OF RHR WHILE OPERATING AT RCS REDUCED INVENTORY CONDITIONS	REV: 11 PAGE 1 of 14
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ROCHESTER GAS AND ELECTRIC CORPORATION

GINNA STATION

CONTROLLED COPY NUMBER 23


RESPONSIBLE MANAGER

5-21-2002
EFFECTIVE DATE

CATEGORY 1.0

REVIEWED BY: _____

EOP: AP-RHR.2	TITLE: LOSS OF RHR WHILE OPERATING AT RCS REDUCED INVENTORY CONDITIONS	REV: 11 PAGE 2 of 14
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A. PURPOSE - This procedure provides guidance necessary for maintaining core cooling and protecting the reactor core in the event that RHR cooling is lost during RCS reduced inventory operation, (i.e., at indicated Loop Levels of less than 64 inches with fuel in the vessel).

B. ENTRY CONDITIONS/SYMPTOMS

1. SYMPTOMS - The following symptoms are indicative of LOSS OF RHR AT RCS REDUCED INVENTORY CONDITIONS:
 - a. No RHR pumps running, or
 - b. Annunciator A-20, RESIDUAL HEAT REMOVAL LOOP LO FLOW 2900 GPM (Set at 400 GPM per 0-2.2 in RHR Cooling mode) lit, or
 - c. Unexpected increase in RCS temperature while on RHR cooling at low loop levels; or
 - d. Erratic or no flow on FI-626

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
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CAUTION

- o CHANGES IN RCS PRESSURE COULD RESULT IN INACCURACIES IN RCS LOOP LEVEL INDICATIONS.
- o SHOULD CORE BOILING OCCUR, "SURGE LINE FLOODING" MAY RESULT IN RCS PRESSURIZATION AND ERRONEOUS HIGH LOOP LEVEL INDICATION.
- o DO NOT START ANOTHER RHR PUMP UNTIL THE CAUSE OF THE ABNORMAL RHR INDICATIONS HAS BEEN DETERMINED AND CORRECTED. IF A RUNNING PUMP HAS TRIPPED FOR REASONS OTHER THAN LOW LOOP LEVEL OR LOSS OF SUCTION FLOW, THEN REDUNDANT PUMP MAY BE STARTED.
- o IA TO CNMT MAY BE REQUIRED FOR RCS MAKEUP AND SHOULD NOT BE ISOLATED UNTIL DIRECTED BY THIS PROCEDURE.

NOTE: Conditions should be evaluated for site contingency reporting (Refer to EPIP-1.0, GINNA STATION EVENT EVALUATION AND CLASSIFICATION).

- 1 Initiate CNMT Closure (Refer to O-2.3.1A, CONTAINMENT CLOSURE CAPABILITY IN TWO HOURS DURING RCS REDUCED INVENTORY OPERATION)

EOP: AP-RHR.2	TITLE: LOSS OF RHR WHILE OPERATING AT RCS REDUCED INVENTORY CONDITIONS	REV: 11 PAGE 4 of 14
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STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
2	Check If RHR Pumps Should Be Stopped:	
	a. RHR pump - ANY RUNNING	a. Go to Step 3.
	b. Check RCS level:	b. Stop RHR pumps and go to Step 3.
	o Level - GREATER THAN 6 INCHES	
	o Level - STABLE	
	c. RHR flow - LESS THAN 500 GPM	c. Reduce RHR flow as necessary.
	d. RHR pumps cavitating:	d. Go to Step 18.
	o RHR pump flow - OSCILLATING	
	-OR-	
	o RHR pump NPSH - APPROXIMATELY ZERO (PPCS Group Display NPSH)	
	e. Stop RHR pumps	
3	Isolate Letdown And Known Drain Paths	
	a. Verify the following valves - CLOSED	a. Manually close valves.
	• RCDT pump suctions from sump B, MOV-1813A and MOV-1813B	
	• Loop B cold leg to REGEN Hx, AOV-427	
	• Low pressure letdown pressure control valve, PCV-135	
	• RHR letdown flow control valve, HCV-133	
	• Excess letdown isolation valve, AOV-310	
	b. Evaluate normal drain lineups	
	c. Evaluate maintenance activities affecting RCS or RHR system	

EOP: AP-RHR.2	TITLE: LOSS OF RHR WHILE OPERATING AT RCS REDUCED INVENTORY CONDITIONS	REV: 11 PAGE 5 of 14
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STEP

ACTION/EXPECTED RESPONSE

RESPONSE NOT OBTAINED

4 Start Available CNMT RECIRC
Fans

NOTE: Personnel remaining in CNMT to assist in event mitigation should consult Radiation Protection for changes in radiological concerns.

5 Initiate Actions To Protect
Personnel In CNMT:

- a. Evacuate non-essential personnel
from CNMT
- b. Periodically monitor CNMT
radiation

CAUTION

- o PERSONNEL WORKING IN CNMT SHOULD BE WARNED BEFORE REFILLING THE RCS TO
AVOID INADVERTANT CONTAMINATION OF PERSONNEL WORKING NEAR RCS OPENINGS.
- o THE S/G OFFICE SHOULD BE NOTIFIED BEFORE RAISING LOOP LEVEL.
- o ONLY BORATED WATER SHOULD BE ADDED TO THE RCS TO MAINTAIN ADEQUATE SDM.

* 6 Check RCS Temp

Go to Step 11.

- o Core Exit TC's - LESS THAN 200°F
- o No visual steam at RCS vents

EOP: AP-RHR.2	TITLE: LOSS OF RHR WHILE OPERATING AT RCS REDUCED INVENTORY CONDITIONS	REV: 11 PAGE 6 of 14
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STEP

ACTION/EXPECTED RESPONSE

RESPONSE NOT OBTAINED

7 Check RCS Loop Level - LESS
THAN 30 INCHES

Go to Step 12.

NOTE: The next four steps are sequenced to indicate the preferred order of
RCS refill methods if core boiling is not occurring.

8 Refill The RCS By Gravity
Feed From The RWST

a. Dispatch AO to locally throttle
open RHR pump suction from RWST,
MOV-856

b. Close RHR pump discharge valve
to loop B cold leg, MOV-720

c. Verify MOV-856 indicates
midposition

d. Verify RCS loop level -
INCREASING AS EXPECTED

e. Check RCS loop level - GREATER
THAN 30 INCHES

f. Manually close MOV-856

g. Open RHR pump discharge valve to
B loop cold leg, MOV-720

h. Go to Step 12

c. Perform the following:

1) Open MOV-720.

2) Go to Step 9.

d. Perform the following:

1) Close MOV-856.

2) Open MOV-720.

3) IF RCS loop level greater
than 6 inches, THEN go to
Step 9. IF NOT, THEN go to
Step 11.

e. Continue filling RCS. WHEN RCS
loop level greater than 30
inches, THEN do Steps 8f
through h.

f. Direct AO to locally close valve.

g. IF MOV-720 does NOT open, THEN
open core deluge valves MOV-852A
and MOV-852B.

EOP: AP-RHR.2	TITLE: LOSS OF RHR WHILE OPERATING AT RCS REDUCED INVENTORY CONDITIONS	REV: 11 PAGE 7 of 14
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STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
9	Refill The RCS By Charging To B Loop Cold Leg:	
a.	Verify IA to CNMT, AOV-5392 - OPEN	a. Manually open valve.
b.	Open and verify open charging line valve to loop B cold leg, AOV-294	b. Open alternate charging line to loop A cold leg, AOV-392B, and go to Step 9d.
c.	Ensure HCV-142 demand at 0%	
d.	Start operable charging pump and increase flow to maximum	
e.	Verify charging flow - GREATER THAN ZERO	e. Perform the following: 1) Stop operating charging pump. 2) Close AOV-294. 3) Go to Step 10.
f.	Verify RCS loop level - INCREASING AS EXPECTED	f. Perform the following: 1) Open or verify open alternate charging line to loop A cold leg, AOV-392B. 2) Close AOV-294. 3) Verify loop level increasing as expected. <u>IF NOT, THEN</u> perform the following: a) Stop operating charging pump. b) Close AOV-392B. c) Close IA to CNMT, AOV-5392. d) Go to Step 10.
g.	Check RCS loop level - GREATER THAN 30 INCHES	g. Continue filling RCS. <u>WHEN</u> loop level greater than 30 inches, <u>THEN</u> do Steps 9h through j.
h.	Stop running charging pump	
i.	Close or verify closed charging line valve to loop B cold leg, AOV-294 and AOV-392B	
j.	Go to Step 12	

EOP: AP-RHR.2	TITLE: LOSS OF RHR WHILE OPERATING AT RCS REDUCED INVENTORY CONDITIONS	REV: 11 PAGE 8 of 14
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STEP

ACTION/EXPECTED RESPONSE

RESPONSE NOT OBTAINED

10 Refill RCS Using SI Pumps To Cold Legs:

- a. Open the appropriate SI pump discharge valves to loop cold legs

- A SI Pump - MOV-878B
- B SI Pump - MOV-878D
- C SI Pump - MOV-878B AND/OR MOV-878D

- b. Open SI pump suction valves from RWST

- MOV-825A
- MOV-825B

- c. Start operable SI pump

- d. Verify the following:

- o SI flow - GREATER THAN ZERO
- o RCS loop level - INCREASING AS EXPECTED

- e. Check RCS loop level - GREATER THAN 30 INCHES

- f. Stop running SI pump

- g. Close SI discharge valves to loop cold legs, MOV-878B and MOV-878D

- h. Go to Step 12

- a. Ensure at least one valve open.

IF valves can NOT be opened, THEN dispatch AO to check breakers.

- MOV-878B, MCC D position 8C
- MOV-878D, MCC D position 8F

- b. Ensure at least one valve open.

IF valves can NOT be opened, THEN dispatch AO to check breakers.

- MOV-825A, MCC C position 9J
- MOV-825B, MCC D position 9J

- d. Perform the following:

- 1) Stop operating SI pump.
- 2) Close loop cold leg inlet valves.

- MOV-878B
- MOV-878D

- 3) Go to step 11.

- e. Continue filling RCS. WHEN loop level greater than 30 inches, THEN do steps 10f through h.

EOP: AP-RHR.2	TITLE: LOSS OF RHR WHILE OPERATING AT RCS REDUCED INVENTORY CONDITIONS	REV: 11 PAGE 9 of 14
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STEP

ACTION/EXPECTED RESPONSE

RESPONSE NOT OBTAINED

NOTE: SI Pump makeup should not be secured when core boiling is indicated.

11 Refill RCS Using SI Pumps To Hot Legs:

- a. Open the appropriate SI pump discharge valves to loop hot legs

- A SI Pump - MOV-878A
- B SI Pump - MOV-878C
- C SI Pump - MOV-878A AND/OR MOV-878C

- b. Open SI pump suction valves from RWST

- MOV-825A
- MOV-825B

- c. Start operable SI pump

- d. Verify the following:

- o SI flow - GREATER THAN ZERO
- o RCS loop level - INCREASING AS EXPECTED

- e. Operate SI Pump as necessary to maintain the following parameters:

- o Core Exit TC's - LESS THAN 200°F
- o No visual steam at RCS vents
- o RCS loop level - GREATER THAN 30 INCHES

- a. Ensure at least one valve open.

IF valves can NOT be opened, THEN dispatch AO to check breakers.

- MOV-878A, MCC C position 8C
- MOV-878C, MCC C position 8F

- b. Ensure at least one valve open.

IF valves can NOT be opened, THEN dispatch AO to check breakers.

- MOV-825A, MCC C position 9J
- MOV-825B, MCC D position 9J

- d. Perform the following:

- 1) Stop operating SI pump.
- 2) Close loop hot leg inlet valves.

- MOV-878A
- MOV-878C

- 3) Ensure makeup flow is initiated

- Gravity feed from RWST
- Charging pumps
- SI pumps to cold legs
- VCT overpressure
- RWST purification pump

- e. IF core exit TC's continue to increase, THEN return to Step 9 to establish additional charging or SI flow to the RCS cold legs.

EOP: AP-RHR.2	TITLE: LOSS OF RHR WHILE OPERATING AT RCS REDUCED INVENTORY CONDITIONS	REV: 11 PAGE 10 of 14
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STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
12	Identify And Isolate Any RCS Leakage	
	<p><u>NOTE:</u> If adequate time to completely vent the RHR system is not available, then air can be swept out of the RHR lines by running an RHR pump at a flowrate between 1200 gpm and 1400 gpm.</p>	
13	Vent RHR System As Necessary	
	<p>a. Maintain RCS level while venting RHR system</p> <p>b. Direct AO to vent RHR suction line from loop A at valve V-2764 (in CNMT by loop A)</p>	
	<p>*****</p> <p style="text-align: center;"><u>CAUTION</u></p> <p>THE RHR PUMP FLOW CONTROL VALVES WILL FAIL OPEN ON LOSS OF INSTRUMENT AIR PRESSURE.</p> <p>*****</p>	
14	Check IA system:	Reset and start additional IA compressors as necessary (75 kw each).
	o Verify adequate air compressors - RUNNING	
	o Verify IA pressure - GREATER THAN 60 PSIG	<p><u>IF</u> IA pressure can <u>NOT</u> be restored, <u>THEN</u> perform the following:</p> <p>a. Dispatch AO with locked valve key to locally throttle RHR Hx outlet valves to approximately half open.</p> <ul style="list-style-type: none"> • A RHR Hx, HCV-625 handwheel • B RHR Hx, HCV-624 handwheel <p>b. <u>WHEN</u> conditions permit, <u>THEN</u> refer to AP-IA.1, LOSS OF INSTRUMENT AIR, to restore IA.</p>

EOP: - AP-RHR.2	TITLE: LOSS OF RHR WHILE OPERATING AT RCS REDUCED INVENTORY CONDITIONS	REV: 11 PAGE 11 of 14
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STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
15	Establish Conditions To Start RHR Pump:	
a.	Check RHR cooling valve alignment - NORMAL (Refer to Attachment NORMAL RHR COOLING)	a. Manually or locally align valves as necessary.
b.	Verify CCW cooling to RHR system - IN SERVICE	b. Restore CCW cooling.
c.	Verify the following RCS conditions:	c. Perform the following:
o	Core exit TC's - LESS THAN 200°F	1) Start trending core exit TCs.
o	No visual steam at RCS vents	2) Return to Step 5.
o	RCS loop level - GREATER THAN 30 INCHES	
d.	RHR pump - AVAILABLE	d. Perform the following:
		1) Start trending core exit TCs.
		2) Place RCDT pumps in service (Refer to ER-RHR.1, RCDT OPERATION FOR CORE COOLING).
		3) Return to Step 5.

EOP: AP-RHR.2	TITLE: LOSS OF RHR WHILE OPERATING AT RCS REDUCED INVENTORY CONDITIONS	REV: 11 PAGE 12 of 14
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STEP

ACTION/EXPECTED RESPONSE

RESPONSE NOT OBTAINED

CAUTION

STARTING AN RHR PUMP MAY RESULT IN AN RCS LEVEL DECREASE DUE TO SHRINK OR VOID COLLAPSE.

16 Restore RHR Flow:

- | | |
|--|---|
| <p>a. Close RHR pump flow control valves</p> <ul style="list-style-type: none"> • HCV-624 • HCV-625 <p>b. Place RHR Hx bypass valve, HCV-626, to MANUAL and close valve</p> <p>c. Start one RHR pump</p> <p>d. Ensure RHR flow - LESS THAN 1500 GPM</p> <p>e. Check RCS loop level - GREATER THAN 30 INCHES</p> <p>f. Gradually increase RHR bypass flow to desired flowrate</p> <p>g. RHR flow - RESTORED</p> <p>h. Establish desired RCS cooldown rate</p> | <p>a. <u>IF IA NOT</u> available, <u>THEN</u> ensure AO has locally throttled RHR Hx outlet valves and go to step 16c.</p> <p>d. <u>IF IA NOT</u> available, <u>THEN</u> dispatch AO with locked valve key to locally adjust flow using RHR Hx outlet valves.</p> <ul style="list-style-type: none"> • A RHR Hx, HCV-625 handwheel • B RHR Hx, HCV-624 handwheel <p>e. Establish adequate makeup flow to stabilize RCS loop level at greater than 30 inches.</p> <p>g. Perform the following:</p> <ol style="list-style-type: none"> 1) Start trending core exit T/Cs. 2) Place RCDT pumps in service (Refer to ER-RHR.1, RCDT OPERATION FOR CORE COOLING). 3) Return to Step 5. |
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EOP: AP-RHR.2	TITLE: LOSS OF RHR WHILE OPERATING AT RCS REDUCED INVENTORY CONDITIONS	REV: 11 PAGE 13 of 14
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STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
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NOTE: Consult with Plant Staff to determine alternatives for long term cooling.

17 Establish Stable Plant Conditions:

- a. Verify Core Exit TC's - LESS THAN 200°F
- b. Check RCS loop level:
 - o Level - GREATER THAN 30 INCHES
 - o Level - STABLE
- c. Stop any running SI pump
- d. Stop any running charging pump
- e. Maintain RCS level stable using RWST gravity feed as necessary

- a. Continue cooling with RHR. Return to Step 16d.
- b. IF RCS loop level increasing, THEN reduce makeup rate to stabilize level. IF RCS loop level decreasing, THEN return to Step 8.
- e. Initiate makeup to the RCS using either of the following:
 - o One charging pump at maximum flow

-OR-

- o One SI pump

18 Check CCW System Operation:

- o CCW pumps - AT LEAST ONE RUNNING
- o CCW to RHR Hxs, MOV-738A AND MOV-738B - OPEN AS NECESSARY
- o Annunciator A-21, COMP COOLING HX OUT HI TEMP - EXTINGUISHED
- o Annunciator A-22, CCW PUMP DISCHARGE LO PRESS - EXTINGUISHED
- o Annunciator A-30, CCW PUMP INLET HEADER HI TEMP - EXTINGUISHED

To restore CCW cooling to RHR Hxs, perform the following:

- a. Ensure the standby CCW pump is running.
- b. Open MOV-738A and MOV-738B as necessary.

IF CCW can NOT be restored, THEN continue attempts to restore CCW (Refer to AP-CCW.3, LOSS OF CCW - PLANT SHUTDOWN).

EOP: . . . AP-RHR.2	TITLE: LOSS OF RHR WHILE OPERATING AT RCS REDUCED INVENTORY CONDITIONS	REV: 11 PAGE 1 of 1
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AP-RHR.2 APPENDIX LIST

TITLE

- 1) ATTACHMENT NORMAL RHR COOLING (ATT-14.0)