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JOSEPH A. WIDAY
VICE PRESIDENT & PLANT MANAGER
GINNA STATION

June 9, 2000

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

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

Dear Mr. Vissing:

As requested, enclosed are Ginna Station Emergency Operating Procedures.

Very truly yours,

Joseph A. Widay

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
ATT Index
AP-RCP.1, Rev. 13
AP-TURB.5, Rev. 5
ATT-9.0, Rev. 7

A002

PARAMETERS: DOC TYPES - PRER PRATT PRAR PRAP 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	013	10/30/98	05/01/98	05/01/03	EF
AP-CCW.2	LOSS OF CCW DURING POWER OPERATION	014	05/18/00	08/17/99	08/17/04	EF
AP-CCW.3	LOSS OF CCW - PLANT SHUTDOWN	012	05/18/00	08/17/99	08/17/04	EF
AP-CR.1	CONTROL ROOM INACCESSIBILITY	016	01/11/00	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 BUSSES	019	12/02/99	05/01/98	05/01/03	EF
AP-ELEC.2	SAFEGUARD BUSSES 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)	007	12/02/99	05/01/98	05/01/03	EF
AP-ELEC.14/16	LOSS OF SAFEGUARDS BUS 14/16	000	06/09/97	06/09/97	06/09/02	EF
AP-ELEC.17/18	LOSS OF SAFEGUARDS BUS 17/18	002	10/18/99	06/09/97	06/09/02	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	011	12/02/99	12/02/99	12/02/04	EF
AP-RCC.1	CONTINUOUS CONTROL ROD WITHDRAWAL/INSERTION	006	02/24/96	05/14/98	05/14/03	EF
AP-RCC.2	RCC/RPI MALFUNCTION	008	11/16/98	02/06/97	02/06/02	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	014	04/14/99	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	007	08/05/97	08/05/97	08/05/02	EF
AP-RCS.4	SHUTDOWN LOCA	011	12/02/99	05/01/98	05/01/03	EF
AP-RHR.1	LOSS OF RHR	013	01/25/99	05/01/98	05/01/03	EF

PARAMETERS: DOC TYPES - PRER PRATT PRAR PRAP 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	008	03/31/00	03/31/00	03/31/05	EF
AP-SW.1	SERVICE WATER LEAK	015	10/18/99	06/03/98	06/03/03	EF
AP-TURB.1	TURBINE TRIP WITHOUT RX TRIP REQUIRED	010	02/12/99	10/10/97	10/10/02	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 31

PARAMETERS: DOC TYPES - PRER PRATT PRAR PRAP STATUS: EF QU 5 YEARS ONLY:

PROCEDURE NUMBER	PROCEDURE TITLE	REV	EFFECT DATE	LAST REVIEW	NEXT REVIEW	ST
ATT-1.0	ATTACHMENT AT POWER CCW ALIGNMENT	001	07/26/94	02/10/98	02/10/03	EF
ATT-1.1	ATTACHMENT NORMAL CCW FLOW	000	05/18/00	05/18/00	05/18/05	EF
ATT-2.1	ATTACHMENT MIN SW	004	06/26/98	02/10/98	02/10/03	EF
ATT-2.2	ATTACHMENT SW ISOLATION	006	03/25/99	08/11/98	08/11/03	EF
ATT-2.3	ATTACHMENT SW LOADS IN CNMT	003	01/25/95	12/31/99	12/31/04	EF
ATT-3.0	ATTACHMENT CI/CVI	005	01/25/99	01/06/99	01/06/04	EF
ATT-3.1	ATTACHMENT CNMT CLOSURE	003	01/25/99	01/25/99	01/25/04	EF
ATT-4.0	ATTACHMENT CNMT RECIRC FANS	003	07/26/94	05/13/98	05/13/03	EF
ATT-5.0	ATTACHMENT COND TO S/G	004	01/25/95	12/31/99	12/31/04	EF
ATT-5.1	ATTACHMENT SAFW	006	07/07/98	12/31/99	12/31/04	EF
ATT-5.2	ATTACHMENT FIRE WATER COOLING TO TDAFW PUMP	003	01/14/99	01/14/99	01/14/04	EF
ATT-6.0	ATTACHMENT COND VACUUM	003	12/18/96	02/10/98	02/10/03	EF
ATT-7.0	ATTACHMENT CR EVAC	005	02/11/00	02/10/98	02/10/03	EF
ATT-8.0	ATTACHMENT DC LOADS	006	03/22/99	01/14/99	01/14/04	EF
ATT-8.1	ATTACHMENT D/G STOP	004	11/03/95	02/10/98	02/10/03	EF
ATT-8.2	ATTACHMENT GEN DEGAS	006	08/17/99	08/17/99	08/17/04	EF
ATT-8.3	ATTACHMENT NONVITAL	003	07/26/94	02/10/98	02/10/03	EF
ATT-8.4	ATTACHMENT SI/UV	004	04/24/97	02/10/98	02/10/03	EF
ATT-9.0	ATTACHMENT LETDOWN	007	06/09/00	01/06/99	01/06/04	EF
ATT-9.1	ATTACHMENT EXCESS L/D	003	03/31/00	02/10/98	02/10/03	EF
ATT-10.0	ATTACHMENT FAULTED S/G	005	10/03/96	05/13/98	05/13/03	EF
ATT-11.0	ATTACHMENT IA CONCERNS	002	04/07/97	08/11/98	08/11/03	EF
ATT-11.1	ATTACHMENT IA SUPPLY	002	04/07/97	08/11/98	08/11/03	EF
ATT-11.2	ATTACHMENT DIESEL AIR COMPRESSOR	000	04/03/98	04/03/98	04/03/03	EF

PARAMETERS: DOC TYPES - PRER PRATT PRAR PRAP STATUS: EF QU 5 YEARS ONLY:

PROCEDURE NUMBER	PROCEDURE TITLE	REV	EFFECT DATE	LAST REVIEW	NEXT REVIEW	ST
ATT-12.0	ATTACHMENT N2 PORVS	003	03/24/97	02/10/98	02/10/03	EF
ATT-13.0	ATTACHMENT NC	002	07/26/94	02/10/98	02/10/03	EF
ATT-14.0	ATTACHMENT NORMAL RHR COOLING	002	04/07/97	09/23/99	09/23/04	EF
ATT-14.1	ATTACHMENT RHR COOL	004	05/01/98	05/01/98	05/01/03	EF
ATT-14.2	ATTACHMENT RHR ISOL	001	07/26/94	02/10/98	02/10/03	EF
ATT-14.3	ATTACHMENT RHR NPSH	002	08/01/97	01/06/99	01/06/04	EF
ATT-14.4	ATTACHMENT RHR SAMPLE	001	07/26/94	01/06/99	01/06/04	EF
ATT-14.5	ATTACHMENT RHR SYSTEM	002	07/26/94	02/10/98	02/10/03	EF
ATT-14.6	ATTACHMENT RHR PRESS REDUCTION	001	01/14/99	01/14/99	01/14/04	EF
ATT-15.0	ATTACHMENT RCP START	005	05/22/97	03/17/00	03/17/05	EF
ATT-15.1	ATTACHMENT RCP DIAGNOSTICS	003	04/24/97	02/10/98	02/10/03	EF
ATT-15.2	ATTACHMENT SEAL COOLING	003	05/22/97	02/10/98	02/10/03	EF
ATT-16.0	ATTACHMENT RUPTURED S/G	009	01/11/00	01/11/00	01/11/05	EF
ATT-17.0	ATTACHMENT SD-1	009	04/06/00	02/29/00	02/28/05	EF
ATT-17.1	ATTACHMENT SD-2	005	09/26/96	09/10/96	09/10/01	EF
ATT-18.0	ATTACHMENT SFP - RWST	004	10/08/97	02/10/98	02/10/03	EF
ATT-20.0	ATTACHMENT VENT TIME	003	07/26/94	02/10/98	02/10/03	EF
ATT-21.0	ATTACHMENT RCS ISOLATION	001	07/26/94	02/10/98	02/10/03	EF
ATT-22.0	ATTACHMENT RESTORING FEED FLOW	001	02/12/99	03/24/97	03/24/02	EF
ATT-23.0	ATTACHMENT TRANSFER 4160V LOADS	000	02/26/99	02/26/99	02/26/04	EF

TOTAL FOR PRATT 44

ROCHESTER GAS AND ELECTRIC CORPORATION

GINNA STATION

CONTROLLED COPY NUMBER 23

RESPONSIBLE MANAGER

6-9-2000

EFFECTIVE DATE

CATEGORY 1.0

REVIEWED BY: _____

A. PURPOSE - This procedure provides the instructions necessary to diagnose and to respond to a reactor coolant pump seal malfunction.

B. ENTRY CONDITIONS/SYMPTOMS

1. ENTRY CONDITIONS - This procedure is entered from:

a. E-3, STEAM GENERATOR TUBE RUPTURE, or

b. ES-1.1, SI TERMINATION, or

c. ES-1.2, POST LOCA COOLDOWN AND DEPRESSURIZATION, or

d. ECA-0.1, LOSS OF ALL AC POWER RECOVERY WITHOUT SI REQUIRED, or

e. ECA-2.1, UNCONTROLLED DEPRESSURIZATION OF BOTH STEAM GENERATORS, or

f. ECA-3.1, SGTR WITH LOSS OF REACTOR COOLANT-SUBCOOLED RECOVERY DESIRED, or

g. ECA-3.2, SGTR WITH LOSS OF REACTOR COOLANT-SATURATED RECOVERY DESIRED, or

h. ECA-3.3, SGTR WITHOUT PRESSURIZER PRESSURE CONTROL, or

i. FR-I.1, RESPONSE TO HIGH PRESSURIZER LEVEL, when RCP seal malfunction is indicated.

2. SYMPTOMS - The symptoms of RCP SEAL MALFUNCTION are;

a. Annunciator B-17(18), RCP A(B) No.1 SEAL HI-LO FLOW 5.0 GPM 1.0 , lit, or

b. Annunciator B-9(10), RCP A(B) LABYR SEAL LO DIFF PRESS 15" H2O, lit, or

c. Annunciator B-3(4), RCP A(B) STAND PIPE HI LEVEL + 1 FT, lit, or

Continued on next page

2. SYMPTOMS (cont)

d. Annunciator B-11(12), RCP A(B) STAND PIPE LO LEVEL -4 FT, lit, or

e. Annunciator B-25(26), RCP A(B) No. 1 SEAL LO DIFF PRESS 220 PSID, lit, or

f. Annunciator B-1(2), RCP A(B) No. 1 SEAL OUT HI TEMP 200°F, lit, or,

g. Annunciator A-7(15), RCP A(B) CCW RETURN HIGH TEMP OR LOW FLOW, lit.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

CAUTION

IF ANY RCP IS SECURED BECAUSE OF A SEAL MALFUNCTION, IT SHOULD NOT BE RESTARTED UNTIL THE CAUSE OF THE MALFUNCTION HAS BEEN DETERMINED AND CORRECTED.

NOTE: o If a Reactor trip is initiated while performing Step 1, transition to E-0 should occur while completing subsequent actions of the step.

o Total #1 Seal Flow is defined for each RCP as the sum of indicated #1 Seal Leakoff Flow and RCDT leak rate (PPCS Point ID L1003, 3.2 gal/% in the normal operating range).

1	Check Total #1 Seal Flow - LESS THAN 8.0 GPM	IF a #1 Seal Failure is verified by a decrease in Labyr Seal Diff Pressure OR increasing Seal Inlet/Outlet temps, THEN perform the following: a. IF reactor trip breakers closed, THEN trip the reactor. b. Trip the affected RCP(s). c. Allow 4 minutes for pump coast down, THEN close affected RCP(s) seal disch valve. • RCP A, AOV-270A • RCP B, AOV-270B d. IF reactor trip was NOT required, THEN perform the following: 1) Initiate SDM verification per O-3.1. 2) Go to step 4.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
2	Check RCP Seal Return Valve Alignment:	
	a. RCP seal return isolation valve, MOV-313 - OPEN	a. Perform the following: 1) Ensure CI reset. 2) Ensure both trains of XY relays for RCP seal return isolation valve, MOV-313, reset. 3) Open RCP seal return isolation valve, MOV-313. IF MOV-313 can NOT be opened, THEN dispatch AO to AUX BLDG with RWST area key to check valve and breaker locally (breaker MCC C position 13J).
	b. Verify RCP seal disch valves - OPEN • RCP A, AOV-270A • RCP B, AOV-270B	b. Manually open valves. IF valves can NOT be opened, THEN verify IA aligned to CNMT and go to Step 3.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

NOTE: o If a reactor trip is initiated while performing Step 3, transition to E-0 should occur while completing subsequent actions of the step.

o The lower limit of 0.8 GPM limit for total #1 seal flow applies when the RCS is at normal operating pressure. Refer to Figure RCP SEAL LEAKOFF and consult plant staff for guidance if the RCS is at reduced pressure.

3 Check Total #1 Seal Flow - BETWEEN 0.8 GPM AND 6.0 GPM

IF #1 Seal Inlet and Outlet temperatures are increasing, THEN perform the following:

a. IF reactor trip breakers closed, THEN trip the reactor.

b. Trip the affected RCP(s).

c. Allow 4 minutes for pump coast down, THEN close affected RCP(s) seal disch valve.

- RCP A, AOV-270A
- RCP B, AOV-270B

d. IF reactor trip was NOT required, THEN initiate SDM verification per O-3.1.

IF #1 Seal Inlet and Outlet temperatures are stable, THEN perform the following while continuing with this procedure.

o IF total #1 Seal flow greater than 6.0 gpm, THEN maintain seal injection flow rate of 9.0 GPM or greater to the affected RCP.

o IF total #1 Seal flow exceeds 8.0 GPM OR Seal Inlet/Outlet temperatures begin to increase, THEN return to Step 1.

o Prepare for orderly pump shutdown by placing the plant in Hot Shutdown using O-2.1, NORMAL SHUTDOWN TO HOT SHUTDOWN.

o Secure the affected RCP within 8 hours.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

NOTE: Attachment RCP DIAGNOSTICS may be used to aid in diagnosis.

4 Check RCP Cooling:

- o Annunciator A-7, RCP A CCW RETURN HIGH TEMP OR LOW FLOW - EXTINGUISHED
- o Annunciator A-15, RCP B CCW RETURN HIGH TEMP OR LOW FLOW - EXTINGUISHED

Perform the following:

a. Verify RCP CCW supply and return valves open.

- RCP A, MOV-749A and MOV-759A
- RCP B, MOV-749B and MOV-759B

b. Ensure open CCW outlet valves from RCP thermal barriers.

- RCP A, AOV-754A
- RCP B, AOV-754B

5 Check RCP #2 Seal Indications:

- o Annunciator B-3, RCP A STANDPIPE HI LEVEL +1 FT - EXTINGUISHED
- o Annunciator B-4, RCP B STANDPIPE HI LEVEL +1 FT - EXTINGUISHED

IF affected RCP #1 seal leakoff flow decreasing, THEN failure of #2 seal may be indicated. Continue plant operation while closely monitoring RCP seal indications.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

* *

CAUTION

REDUCING CHARGING FLOW WILL RESULT IN INCREASING REGEN HX OUTLET TEMPERATURE.

* *

6 Check RCP Labyrinth Seal D/Ps - GREATER THAN 15 INCHES OF WATER	Perform the following: a. Ensure open CCW outlet valves from RCP thermal barriers. • RCP A, AOV-754A • RCP B, AOV-754B b. Verify seal injection flow greater than 5 GPM for affected RCP. c. Adjust HCV-142 as necessary. d. Dispatch AO to check seal injection filter D/P. e. Check CCW surge tank level stable. IF level increasing, THEN go to AP-CCW.1, LEAKAGE INTO THE COMPONENT COOLING LOOP.
7 Check RCP #3 Seal Indications: o Annunciator B-11, RCP A STAND PIPE LO LEVEL -4FT - EXTINGUISHED o Annunciator B-12, RCP B STAND PIPE LO LEVEL -4FT - EXTINGUISHED	Check CNMT radiation monitors normal. • R-11 • R-12 IF RCP standpipe level low and CNMT radiation increasing, THEN # 3 seal leakage increase is probable. Continue plant operation while closely monitoring RCP seal indications.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

NOTE: In the absence of other seal failure indications, an elevated #1 seal outlet temperature may indicate pump bearing damage.

* 8	Monitor RCP Seal Conditions:	
	a. RCP <u>total</u> #1 seal flow o <u>Total</u> #1 seal flow - LESS THAN 6.0 GPM o <u>Total</u> #1 seal flow - GREATER THAN 0.8 GPM	a. <u>IF</u> affected RCP running, <u>THEN</u> return to Step 1. <u>IF NOT</u>, <u>THEN</u> perform the following: 1) Monitor affected RCP (Refer to Attachment RCP DIAGNOSTICS). 2) Consult Plant Staff to determine if cooldown required.
	b. RCP #1 Seal Leakoff Flow - WITHIN THE NORMAL OPERATING RANGE OF FIGURE RCP SEAL LEAKOFF	b. Perform the following: o Ensure seal injection flow exceeds #1 seal leakoff flow. o Refer to S-2.1, Reactor Coolant Pump Operation. o Consult plant staff for further instructions.
	c. RCP #1 seal outlet temperatures - LESS THAN 215° <u>AND</u> STABLE	c. <u>IF</u> pump bearing damage is suspected, <u>THEN</u> notify plant staff and expedite shutdown of the affected RCP. <u>IF NOT</u>, <u>THEN</u> return to Step 1.
	d. RCS leakage - NORMAL (Refer to leakage surveillance sheet)	d. Perform the following: 1) Calculate RCS leakrate. 2) Refer to ITS section 3.4.13.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

NOTE: Refer to O-9.3, NRC IMMEDIATE NOTIFICATION, for reporting requirements.

9 Notify Higher Supervision

-END-

AP-RCP.1 APPENDIX LIST

TITLE

1) FIGURE RCP SEAL LEAKOFF (FIG-4.0)

2) ATTACHMENT RCP DIAGNOSTICS (ATT-15.1)

ROCHESTER GAS AND ELECTRIC CORPORATION

GINNA STATION

CONTROLLED COPY NUMBER 23

RESPONSIBLE MANAGER

6-9-2000

EFFECTIVE DATE

CATEGORY 1.0

REVIEWED BY: _____

A. PURPOSE -

B. ENTRY CONDITIONS/SYMPTOMS

1. ENTRY CONDITIONS - This procedure is entered from

a. The SS has determined that a rapid load reduction is required.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

* *

CAUTION

IF MAIN FEEDWATER FLOW SHOULD DECREASE TO 25% OF FULL POWER VALUE (.825 E+6 LBM/HR) PRIOR TO THE AMSAC SYSTEM AUTOMATICALLY BLOCKING, THEN A TURBINE TRIP AND AUX FEED PUMPS START COULD RESULT.

* *

NOTE: o This procedure is intended for use when the required load reduction rate is > 1%/min.

o A maximum continuous load reduction rate of > 5%/min would not normally be used unless otherwise directed by the Shift Supervisor.

*** 1** Initiate Load Reduction

a. Verify ROD CONTROL BANK SELECTOR SWITCH is in AUTOMATIC

a. IF Auto Rod Control is inoperable OR Manual Control is desired, THEN perform the following:

1) Place ROD CONTROL BANK SELECTOR SWITCH to MANUAL.

2) Insert Rods as necessary to match Tavg and Tref.

b. Reduce turbine load using Auto Turbine EH Control if desired

1) Place Turbine EH Control in OPER PAN., IMP PRESS IN, if desired.

2) Select desired rate on thumbwheel

3) Reduce the setter to the desired load

4) Depress the GO button

b. IF Auto Control is inoperable OR Manual Control is desired, THEN reduce turbine load in manual as desired.

c. Verify Steam Dump operating in auto, as required

c. Place Steam Dump in manual and operate as necessary.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

* *

CAUTION

EXTREME AND RAPID ROD MOTION TO MITIGATE TAVG SWINGS MAY RESULT IN LARGE POWER EXCURSIONS AND SHOULD BE AVOIDED.

* *

* 2 Monitor RCS Tavg o Tavg - GREATER THAN 545°F o Tavg - LESS THAN 566°F	Verify AUTO control rod motion as required. IF NOT, THEN place rod control bank selector switch to MANUAL and adjust control rods as necessary. a. IF Tavg is outside limits AND CANNOT be controlled, THEN trip the reactor and go to E-0, REACTOR TRIP OR SAFETY INJECTION.

NOTE: The thumb rule for initial boron addition is ~2 gal/% load reduction. Refer to OPG-REACTIVITY-CALC if desired.

3 Add Boric Acid As Necessary To:

- o Maintain or return Δ Flux to the target band
- o Maintain control rods above insertion limits
- o Match Tavg and Tref
- o Compensate for Xenon

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

NOTE: It is permissible to operate RCPs for limited periods without seal injection, provided CCW is being supplied to the thermal barriers.

4 Check IA Available To CNMT

- o IA pressure - > 60 psig
- o Instr Air to CNMT Isol Valve, AOV-5392 - OPEN

Control PRZR level and pressure and follows:

- o Adjust load reduction rate
- o Ensure control rods are moving to control Tavg
- o Secure charging pumps if necessary
- o Operate proportional and backup heaters as required

* 5 Monitor Plant Parameters - CONTROLLING AT OR TRENDING TO PROGRAM VALUES

- PRZR Pressure
- PRZR Level
- S/G Level

IF any parameter is approaching a trip setpoint AND CANNOT be controlled, THEN trip the reactor and go to E-0, REACTOR TRIP OR SAFETY INJECTION.

NOTE: The load reduction should not be delayed to perform the remaining steps.

6 Check If Condensate Booster Pumps Should Be Secured

a. Power < 65% OR Trim Valve V-9508G indicates > 80% open

a. Go to Step 13.

b. Place the auto condensate booster pump to the trip position

c. Stop one condensate booster pump

d. WHEN the condensate system stabilizes, THEN stop the remaining condensate booster pump

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
7	Check If One MFW Pump Should Be Secured	
	a. Power < 50%	a. Go to Step 13.
	b. Verify at least one MFWP Seal Booster pump in service	b. Notify AO to start one MFWP Seal Booster pump
	c. Two MFW Pumps running	c. Go to Step 8.
	d. Close discharge valve for the pump to be secured • MFW Pump A - MOV-3977 • MFW Pump B - MOV-3976	
	e. Stop the desired MFW Pump	
	f. Close the secured MFW pump recirc valve by placing the control switch in pull stop	
	g. Close the service water block valve to the secured MFW pump oil cooler • MFW Pump A - V-4701 • MFW Pump B - V-4702	
8	Verify Trim Valves Controlling Condensate System Pressure in Auto (300-375 PSIG)	Place controller in manual and adjust pressure as necessary

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
9	Check AMSAC System Status	
	a. Power < 35% (~150 psig first stage pressure)	a. Go to Step 13.
	b. Verify AMSAC Auto Block Status Light is ON	b. Place AMSAC Manual Block switch to the BLOCK position
10	Check Heater Drain Tank Pump Status	
	a. Generator load < 175 MWe	a. Go to Step 13.
	b. Stop one Heater Drain Tank Pump	
	c. <u>WHEN</u> Heater Drain Tank level control is stable, <u>THEN</u> stop the second Heater Drain Tank Pump	
11	Check FW Flow Bypass Vlv Status	
	a. Power < 30%	a. Go to Step 13.
	b. FW Flow Bypass Vlvs in AUTO • HCV-480 • HCV-481	b. Perform the following: 1) Slowly open the FW Flow Bypass Vlvs while verifying the associated FW Reg Vlv compensates by closing slightly 2) Place FW Flow Bypass Vlvs in AUTO

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
12	Align Systems For Low Power Operation	
	a. Power < 30%	a. Go to Step 13.
	b. Place AOV-3959, CNDST Bypass Vlv to CLOSE	
	c. Place LC-107, Hotwell Level Control, to MANUAL	
	d. Generator load < 100 MWe	d. Go to Step 13.
	e. Open turbine drain valves	
13	Evaluate Plant Status	
	a. Power stable at desired level	a. IF power > 20% and further reduction is required, THEN continue load reduction and return to Step 6. 1) IF power < 20% and further reduction is required, THEN refer to procedure O-2.1, NORMAL SHUTDOWN TO HOT SHUTDOWN.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
14	Establish Stable Plant Conditions:	
	a. Tavg - TRENDING TO TREF	a. Perform the following: 1) Verify AUTO control rod motion as required. IF NOT, THEN place rod control bank selector switch to MANUAL and adjust control rods as necessary. 2) Borate if required for power reduction.
	b. PRZR pressure - TRENDING TO 2235 PSIG	b. Verify proper operation of PRZR heaters and spray OR take manual control of PRZR pressure controller 431K. IF PRZR pressure can NOT be controlled, THEN refer to AP-PRZR.1, ABNORMAL PRESSURIZER PRESSURE.
	c. PRZR level - TRENDING TO PROGRAM	c. Verify proper operation of charging pump speed controllers OR take manual control of speed controllers to control PRZR level.
	d. Rod insertion limit alarms - EXTINGUISHED	d. Borate as necessary and withdraw control rods to clear insertion limit alarms (refer to affected rod bank alarm response procedures if necessary).
	e. Narrow range S/G levels - TRENDING TO 52%	e. Ensure MFW regulating valves controlling in AUTO, OR control feedwater in MANUAL.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
15	Establish Normal Plant Conditions:	
	a. Ensure EH control as desired	
	b. Verify steam dump controller, HC-484, in AUTO at 1005 psig	
	c. Verify annunciator G-15, STEAM DUMP ARMED - EXTINGUISHED	c. IF Tavg within 5°F of Tref, THEN perform the following: 1) Ensure steam dump valves closed. 2) Reset steam dump.
	d. Verify PRZR pressure control in AUTO	d. Place PRZR pressure control in AUTO as desired. • 431K master controller • PRZR spray valve controllers
	e. Ensure PRZR Heaters restored: o PRZR proportional heater breaker - CLOSED o PRZR backup heater breaker - RESET/IN AUTO	
	f. Verify PRZR level control in AUTO	f. Place one charging pump speed controller in AUTO if desired.
	g. Verify Rod Control Selector Switch in AUTO	g. Place Rod Control Selector Switch in AUTO if desired.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

NOTE: Refer to O-9.3, NRC IMMEDIATE NOTIFICATION, for reporting requirements.

16 Notify Higher Supervision

17 Refer to O-5.1, LOAD REDUCTIONS, for additional guidance

18 Return To Procedure Or Guidance In Effect

-END-

EOP: ATT-9.0	TITLE: ATTACHMENT LETDOWN	REV: 7 PAGE 1 of 1

Responsible Manager _____ Date 6-9-2000

A) The following conditions must be met to place either normal or excess letdown in service:
   - o IA to CNMT - ESTABLISHED
   - o CCW - IN SERVICE
   - o PRZR level - GREATER THAN 13%

B) Establish Normal Letdown:

1. Establish charging line flow to REGEN Hx - GREATER THAN 20 gpm.
2. Place the following switches to CLOSE:
   - o Letdown orifice valves (AOV-200A, AOV-200B, and AOV-202)
   - o AOV-427, loop B cold leg to REGEN Hx
3. Place letdown controllers in MANUAL at 40% open:
   - o Temperature control valve, TCV-130
   - o Pressure control valve, PCV-135
4. Verify AOV-371, letdown isolation valve - OPEN.
5. Open loop B cold leg to REGEN Hx, AOV-427.
6. Open one 40 gpm letdown orifice valve (AOV-200A or AOV-200B).
7. Place TCV-130 in AUTO at 105°F.
8. Place PCV-135 in AUTO at 250 psig.
9. Adjust charging pump speed and HCV-142 as necessary to stabilize PRZR level and maintain RCP labyrinth seal D/P.

C) IF normal letdown can NOT be established, THEN establish excess letdown:

1. Ensure excess LTDN Loop A cold to Hx, AOV-310 is closed.
2. Ensure excess letdown flow control valve, HCV-123 is closed, demand at 0.
3. Place AOV-312 to NORMAL.
4. Ensure CCW from excess letdown Hx, (AOV-745) - OPEN.
5. Open excess letdown isolation valve AOV-310.
6. Slowly open HCV-123 to maintain excess letdown temperature less than 195°F and pressure less than 100 psig.
7. Adjust charging pump speed as necessary to stabilize PRZR level and maintain RCP labyrinth seal D/P.