

September 24, 2003

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555

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

As requested, enclosed are Ginna Station Emergency Operating Procedures.

Very truly yours,

Joseph A. Widay
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JAW/jdw

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Enclosure(s):

AP Index
AP-ELEC.13/15, Rev 0

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NPSP0200
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GINNA Nuclear Power Plant
PROCEDURE INDEX

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INPUT PARAMETERS: TYPE: PRAP

STATUS VALUE(S): EF, QU

5 YEARS ONLY:

PRAP ABNORMAL PROCEDURE

PROCEDURE NUMBER	PROCEDURE TITLE	REV	EFFECT DATE	LAST REVIEW	NEXT REVIEW	ST
AP-CCW.1	LEAKAGE INTO THE COMPONENT COOLING LOOP	015	06/26/2002	06/26/2002	06/26/2007	EF
AP-CCW.2	LOSS OF CCW DURING POWER OPERATION	018	05/08/2003	06/26/2002	06/26/2007	EF
AP-CCW.3	LOSS OF CCW - PLANT SHUTDOWN	015	11/19/2002	06/26/2002	06/26/2007	EF
AP-CR.1	CONTROL ROOM INACCESSIBILITY	019	02/25/2003	06/26/2002	06/26/2007	EF
AP-CVCS.1	CVCS LEAK	013	06/26/2002	06/03/2002	06/03/2007	EF
AP-CVCS.3	LOSS OF ALL CHARGING FLOW	004	08/26/2003	02/26/1999	02/26/2004	EF
AP-CW.1	LOSS OF A CIRC WATER PUMP	011	06/26/2002	04/16/2003	04/16/2008	EF
AP-ELEC.1	LOSS OF 12A AND/OR 12B BUSES	026	05/30/2003	06/26/2002	06/26/2007	EF
AP-ELEC.2	SAFEGUARD BUSES LOW VOLTAGE OR SYSTEM LOW FREQUENCY	010	06/26/2002	06/26/2002	06/26/2007	EF
AP-ELEC.3	LOSS OF 12A AND/OR 12B TRANSFORMER (BELOW 350 F)	012	05/30/2003	06/26/2002	06/26/2007	EF
AP-ELEC.13/15	LOSS OF BUS 13/15	000	09/24/2003	09/24/2003	09/24/2008	EF
AP-ELEC.14/16	LOSS OF SAFEGUARDS BUS 14/16	007	08/26/2003	06/26/2002	06/26/2007	EF
AP-ELEC.17/18	LOSS OF SAFEGUARDS BUS 17/18	006	05/30/2003	06/26/2002	06/26/2007	EF
AP-FW.1	ABNORMAL MAIN FEEDWATER FLOW	015	05/08/2003	06/26/2002	06/26/2007	EF
AP-IA.1	LOSS OF INSTRUMENT AIR	018	06/26/2002	04/16/2003	04/16/2008	EF
AP-PRZR.1	ABNORMAL PRESSURIZER PRESSURE	014	05/08/2003	06/26/2002	06/26/2007	EF
AP-RCC.1	CONTINUOUS CONTROL ROD WITHDRAWAL/INSERTION	008	06/26/2002	04/16/2003	04/16/2008	EF
AP-RCC.2	RCC/RPI MALFUNCTION	010	06/26/2002	01/22/2002	01/22/2007	EF
AP-RCC.3	DROPPED ROD RECOVERY	006	02/25/2003	02/25/2003	02/25/2008	EF
AP-RCP.1	RCP SEAL MALFUNCTION	015	05/08/2003	04/24/2003	04/24/2008	EF
AP-RCS.1	REACTOR COOLANT LEAK	016	06/26/2002	04/16/2003	04/16/2008	EF
AP-RCS.2	LOSS OF REACTOR COOLANT FLOW	011	06/26/2002	04/16/2003	04/16/2008	EF
AP-RCS.3	HIGH REACTOR COOLANT ACTIVITY	010	06/26/2002	04/01/2002	01/22/2007	EF
AP-RCS.4	SHUTDOWN LOCA	014	04/30/2003	04/30/2003	04/30/2008	EF
AP-RHR.1	LOSS OF RHR	019	04/30/2003	04/30/2003	04/30/2008	EF
AP-RHR.2	LOSS OF RHR WHILE OPERATING AT RCS REDUCED INVENTORY CONDITIONS	013	04/30/2003	04/30/2003	04/30/2008	EF
AP-SG.1	STEAM GENERATOR TUBE LEAK	003	11/21/2002	06/26/2002	06/26/2007	EF
AP-SW.1	SERVICE WATER LEAK	019	05/30/2003	04/21/2003	04/21/2008	EF
AP-SW.2	LOSS OF SERVICE WATER	004	05/30/2003	10/31/2001	10/31/2006	EF
AP-TURB.1	TURBINE TRIP WITHOUT RX TRIP REQUIRED	012	05/08/2003	06/26/2002	06/26/2007	EF

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INPUT PARAMETERS: TYPE: PRAP

STATUS VALUE(S): EF, QU

5 YEARS ONLY:

PRAP ABNORMAL PROCEDURE

PROCEDURE NUMBER	PROCEDURE TITLE	REV	EFFECT DATE	LAST REVIEW	NEXT REVIEW	ST
AP-TURB.2	TURBINE LOAD REJECTION	018	06/26/2002	06/26/2002	06/26/2007	EF
AP-TURB.3	TURBINE VIBRATION	011	06/26/2002	06/26/2002	06/26/2007	EF
AP-TURB.4	LOSS OF CONDENSER VACUUM	017	04/30/2003	04/30/2003	04/30/2008	EF
AP-TURB.5	RAPID LOAD REDUCTION	006	06/26/2002	06/26/2002	06/26/2007	EF

PRAP TOTAL: 34


GRAND TOTAL: 34

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ROCHESTER GAS AND ELECTRIC CORPORATION

GINNA STATION

CONTROLLED COPY NUMBER 23


RESPONSIBLE MANAGER

9-24-2003
EFFECTIVE DATE

CATEGORY 1.0

REVIEWED BY: _____

EOP: AP-ELEC.13/15	TITLE: LOSS OF BUS 13/15	REV: 0 PAGE 2 of 14
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- A. PURPOSE - This procedure provides actions to respond to a loss of Bus 13 or Bus 15.
- B. ENTRY CONDITIONS/SYMPTOMS
 - 2. SYMPTOMS - The symptoms of a loss of Bus 13 or Bus 15 are;
 - a. Annunciator L-6, BUS 13 UNDERVOLTAGE NON-SAFEGUARD, lit,
or,
 - b. Annunciator L-22, BUS 15 UNDERVOLTAGE NON-SAFEGUARD, lit.

STEP

ACTION/EXPECTED RESPONSE

RESPONSE NOT OBTAINED

*** 1 Monitor Tavg**

- a. Place rods in MANUAL
- b. Manually operate control rods to control Tavg

NOTE: With PRZR pressure controller 431K in manual, PORV-431C will not operate in the automatic mode. (Refer to TR 3.4.3)

2 Check Instrument Buses - ALL ENERGIZED:

- o Annunciator E-6. LOSS A INSTR BUS - EXTINGUISHED
- o Annunciator E-14. LOSS B INSTR BUS - EXTINGUISHED
- o Annunciator E-22. LOSS C INSTR BUS - EXTINGUISHED
- o Annunciator E-30. LOSS D INSTR BUS - EXTINGUISHED

IF any instrument bus deenergized, THEN perform the following:

- a. Place controller 431K to MANUAL.
- b. IF steam dump is armed, THEN place STEAM DUMP MODE SELECTOR Switch to MANUAL.
- c. Transfer affected instrument bus to available supply.
- d. Place 431K to AUTO, if desired.
- e. Return steam dump to AUTO, if desired.

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STEP

ACTION/EXPECTED RESPONSE

RESPONSE NOT OBTAINED

3 Check IA System

a. Verify adequate air compressor(s) - RUNNING

b. Check IA supply

o Pressure - GREATER THAN 60 PSIG

o Pressure - STABLE OR INCREASING

a. Manually start adequate air compressor(75 kw).

b. Dispatch an AO to locally reset and start adequate air compressors (75 kw).

IF electric air compressor(s) can NOT be restored, THEN use diesel air compressor. (Refer to ATT-11.2, ATTACHMENT DIESEL AIR COMPRESSOR)

IF IA can NOT be established, THEN refer to AP-IA.1, LOSS OF INSTRUMENT AIR.

4 Start EH Pump On Redundant Train

o IF Bus 13 deenergized, THEN start EH pump B

-OR-

o IF Bus 15 deenergized, THEN start EH pump A

IF no EH pump can be operated, THEN perform the following:

o IF greater than P-9, THEN trip the reactor and go to E-0, REACTOR TRIP OR SAFETY INJECTION.

-OR-

o IF less than P-9, THEN trip the turbine and go to AP-TURB.1, TURBINE TRIP WITHOUT RX TRIP REQUIRED.

EOP: AP-ELEC.13/15	TITLE: LOSS OF BUS 13/15	REV: 0 PAGE 5 of 14
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STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
5	Locally Ensure At Least One Bus Duct Cooling Fan - RUNNING	<u>IF</u> no fans running. <u>THEN</u> reduce load per AR-J-4, GENERATOR ISO PHASE BUS COOLING SYSTEM.
6	Check Condensate Bypass Valve - CLOSED	Perform the following: a. Close condensate bypass valve <u>AND</u> place in AUTO. b. Verify MFW pump suction pressure remains greater than 200 psig. <u>IF NOT</u> . <u>THEN</u> manually open condensate bypass valve.

EOP:	TITLE:	REV: 0
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STEP

ACTION/EXPECTED RESPONSE

RESPONSE NOT OBTAINED

NOTE: IF VCT level decreases to 5%, charging pump suction will swap to the RWST. This may require a load reduction.

7 Check VCT Makeup System:

a. Ensure the following:

- 1) RMW mode selector switch in
AUTO
- 2) RMW control armed - RED LIGHT
LIT

b. Check VCT level:

- o Level - GREATER THAN 20%
-OR-
- o Level - STABLE OR INCREASING

b. Perform the following:

- 1) Check letdown divert valve.
LCV-112A, aligned to VCT.
- 2) Manually increase VCT makeup
flow as follows:
 - a) Ensure BA transfer pumps
and RMW pumps running.
 - b) Adjust RMW flow control
valve. HCV-111. to
increase RMW flow.
 - c) Adjust boric acid flow to
maintain required
concentration.

IF VCT level can NOT be
maintained, THEN refer to
ER-CVCS.1, REACTOR MAKEUP
CONTROL MALFUNCTION, if
necessary.

EOP:	TITLE:	REV: 0
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STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
8	Check Charging Pump Suction Aligned To VCT:	
a.	VCT level - GREATER THAN 20%	<p>a. <u>IF</u> VCT level can <u>NOT</u> be maintained greater than 5%. <u>THEN</u> perform the following:</p> <ol style="list-style-type: none"> 1) Ensure charging pump suction aligned to RWST <ul style="list-style-type: none"> o LCV-112B open o LCV-112C closed 2) Continue with Step 9. <u>WHEN</u> VCT level greater than 20%. <u>THEN</u> do Step 8b.
b.	Align charging pumps to VCT <ul style="list-style-type: none"> o LCV-112C open o LCV-112B closed 	

EOP:	TITLE:	REV: 0
AP-ELEC.13/15	LOSS OF BUS 13/15	PAGE 8 of 14

STEP

ACTION/EXPECTED RESPONSE

RESPONSE NOT OBTAINED

9 Check If Generator Online:

- a. Check generator output breakers
- AT LEAST ONE CLOSED

- 1G13A72
- 9X13A72

- b. Check Tav_g - TRENDING TO TREF

- a. Go to Step 10.

- b. IF Tav_g greater than Tref, THEN restore Tav_g to Tref by one or more of the following:

- Insert control rods
- RCS boration

IF Tav_g less than Tref, THEN restore Tav_g to Tref by one or more of the following:

- Withdraw control rods
- Reduce turbine load
- Dilution of RCS

- c. Verify annunciator G-15. STEAM
DUMP ARMED - EXTINGUISHED

- c. WHEN Tav_g within 5°F of Tref, THEN perform the following:

- 1) Ensure steam dump valves closed.

- 2) Reset steam dump.

NOTE: With PRZR pressure controller 431K in manual, PORV-431C will not operate in the automatic mode. (Refer to TR 3.4.3)

***10** Monitor PRZR Pressure -
TRENDING TO 2235 PSIG IN AUTO

Control PRZR pressure by one of the following:

- 431K in MANUAL
- Manual control of PRZR heaters and sprays

IF PRZR pressure can NOT be controlled manually, THEN refer to AP-PRZR.1, ABNORMAL PRESSURIZER PRESSURE.

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STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
11	Establish Control Systems In Auto:	
a.	Verify 431K in AUTO	a. Place 431K in AUTO, if desired.
b.	Verify PRZR spray valves in AUTO	b. Place PRZR spray valves in AUTO, if desired.
c.	Verify PRZR heaters restored:	c. Restore PRZR heaters, if desired.
	o PRZR proportional heaters breaker - CLOSED	
	o PRZR backup heaters breaker - RESET, IN AUTO	
d.	Verify annunciator G-15, STEAM DUMP ARMED - EXTINGUISHED	d. <u>WHEN</u> Tavg within 5°F of Tref, <u>THEN</u> perform the following:
		1) Ensure steam dump valves closed
		2) Reset steam dump
e.	Verify rods in AUTO	e. Place rods in AUTO, if desired.

STEP

ACTION/EXPECTED RESPONSE

RESPONSE NOT OBTAINED

12 Restore Equipment Alignment:

- a. Stop turbine emergency DC lube oil pump
- b. Place switch for EH pump associated with deenergized bus to stop, then return to AUTO.
 - o Bus 13, EH Pump A

-OR-

 - o Bus 15, EH Pump B
- c. Align MFW pump oil pumps as follows:
 - 1) Select MFW pump A AC oil pump to an energized supply:
 - 1A1, IF Bus 13 energized
 - 1A2, IF Bus 15 energized
 - 2) Stop MFW pump A DC oil pump, then return to AUTO
 - 3) Select MFW pump B AC oil pump switch to an energized supply:
 - 1B1, IF Bus 13 energized
 - 1B2, IF Bus 15 energized
 - 4) Stop MFW pump B DC oil pump, then return to AUTO
- d. Check turbine speed - AT LEAST 1800 RPM
- e. IF turning gear oil pump has auto started, THEN stop turning gear oil pump
- f. Locally verify DC air side seal oil backup pump running.

d. Go to step 12h.

f. IF DC air side seal oil backup pump is NOT running, THEN go to Step 12h.

This Step continued on the next page.

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STEP

ACTION/EXPECTED RESPONSE

RESPONSE NOT OBTAINED

(Step 12 continued from previous page)

g. IF DC air side seal oil backup pump running AND the HP seal oil backup pump has auto started, THEN stop HP seal oil backup pump

h. Locally verify at least one vacuum priming pump running

h. Locally start available vacuum priming pump.

i. Locally check FW Pump Seal Water Panel FW PMP OUTBOARD SEAL WATER SOLENOID TRIP lights - EXTINGUISHED

i. IF Inst Bus D is energized, THEN locally reset solenoids.

13 Notify Maintenance To Monitor Affected DG:

a. Monitor DG for proper operation:

- Security D/G. IF Bus 13 deenergized
- TSC D/G. IF Bus 15 deenergized

b. Add fuel oil as needed

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STEP

ACTION/EXPECTED RESPONSE

RESPONSE NOT OBTAINED

14 Check If The Deenergized Bus Can Be Restored:

- a. Check relay targets to determine cause of trip
- b. Annunciator L-8, 480V GROUND, EXTINGUISHED
- c. Cause of loss of bus - KNOWN AND CORRECTED

- b. IF ground is on affected bus, THEN continue with step 17. WHEN ground is cleared, THEN do Steps 14c, 15 and 16.

c. Perform the following:

- 1) IF bus 13 deenergized, THEN place generator bearing drain vapor extractor backup eductor in service (Refer to T-17K).
- 2) Review P-12 load list for the deenergized bus.
- 3) Continue with step 17. WHEN cause is known and corrected, THEN do Steps 15 and 16.

15 Energize Affected Bus (Refer to ER-ELEC.1, RESTORATION OF OFFSITE POWER)

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STEP

ACTION/EXPECTED RESPONSE

RESPONSE NOT OBTAINED

16 Restore Equipment Alignment:

a. Locally check air side seal oil pumps:

1) Air side seal oil pump -
RUNNING

1) Locally start air side seal
oil pump.

IF air side seal oil pump can
NOT be started, THEN go to
step 16b.

2) DC air side seal oil backup
pump - OFF

2) Locally stop DC air side seal
oil backup pump.

b. Locally check H2 side seal oil pump - RUNNING

b. Locally start H2 side seal oil
pump.

c. Check Control Room ventilation operating normally (Refer to O-6.13)

c. Restore Control Room ventilation
to normal operation, if desired.

d. Check fire water booster pump switch in AUTO

d. Place fire water booster pump
switch to AUTO, if desired.

e. Restore affected rod drive MG set (Refer to S-1A, STARTUP OF ROD DRIVE MOTOR GENERATOR SETS)

f. Locally ensure both bus duct cooling fans - RUNNING

g. Locally ensure at least one vacuum priming pump- RUNNING

h. Locally ensure relay room AC unit - RUNNING

i. Locally restore MFP room ventilation (Refer to T-4G)

j. Dispatch AO to ensure one waste gas compressor in service

k. Verify annunciator L-1, AUX BLDG VENT SYSTEM CONTROL PANEL - EXTINGUISHED

k. IF bus 11A or 11B energized,
THEN dispatch AO to restore AUX
BLDG ventilation (Refer to
T-35A, AUX AND INTERMEDIATE
BUILDING VENTILATION STARTUP AND
SHUTDOWN).

l. Restore generator bearing drain vapor extractor to normal operation

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STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
17	Verify All Instrument Buses On Normal Supply	<u>IF</u> normal supply available, <u>THEN</u> place affected instrument bus on normal supply. if desired (Refer to ER-INST.3. INSTRUMENT BUS POWER RESORATION).
18	Evaluate MCB Annunciator Status (Refer to AR procedures)	
19	Notify Higher Supervision	
20	Verify Bus 13 <u>AND</u> Bus 15 - ENERGIZED	Return to Step 14.
21	Return To Procedure Or Guidance In Effect	
-END-		