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Constellation Energy
R.E. Ginna Nuclear Power Plant, LLC

April 26, 2005

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,

Thomas A. Marlow

TAM/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-CR.1, Rev 21

A002

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	017	06/30/2004	06/26/2002	06/26/2007	EF
AP-CCW.2	LOSS OF CCW DURING POWER OPERATION	019	06/30/2004	06/26/2002	06/26/2007	EF
AP-CCW.3	LOSS OF CCW - PLANT SHUTDOWN	016	06/30/2004	06/26/2002	06/26/2007	EF
AP-CR.1	CONTROL ROOM INACCESSIBILITY	021	04/26/2005	06/26/2002	06/26/2007	EF
AP-CVCS.1	CVCS LEAK	014	06/30/2004	06/03/2002	06/03/2007	EF
AP-CVCS.3	LOSS OF ALL CHARGING FLOW	005	04/10/2005	02/27/2004	02/27/2009	EF
AP-CW.1	LOSS OF A CIRC WATER PUMP	012	09/17/2004	04/16/2003	04/16/2008	EF
AP-ELEC.1	LOSS OF 12A AND/OR 12B BUSSES	028	01/21/2005	06/26/2002	06/26/2007	EF
AP-ELEC.2	SAFEGUARD BUSSES LOW VOLTAGE OR SYSTEM LOW FREQUENCY	011	06/10/2004	06/26/2002	06/26/2007	EF
AP-ELEC.3	LOSS OF 12A AND/OR 12B TRANSFORMER (BELOW 350 F)	013	01/21/2005	06/26/2002	06/26/2007	EF
AP-ELEC.13/15	LOSS OF BUS 13/15	001	06/30/2004	09/24/2003	09/24/2008	EF
AP-ELEC.14/16	LOSS OF SAFEGUARDS BUS 14/16	009	01/21/2005	06/26/2002	06/26/2007	EF
AP-ELEC.17/18	LOSS OF SAFEGUARDS BUS 17/18	008	01/21/2005	06/26/2002	06/26/2007	EF
AP-FW.1	ABNORMAL MAIN FEEDWATER FLOW	016	06/30/2004	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	015	06/30/2004	06/26/2002	06/26/2007	EF
AP-RCC.1	CONTINUOUS CONTROL ROD WITHDRAWAL/INSERTION	009	06/30/2004	04/16/2003	04/16/2008	EF
AP-RCC.2	RCC/RPI MALFUNCTION	012	04/10/2005	2//20/51/2	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	017	06/30/2004	04/24/2003	04/24/2008	EF
AP-RCS.1	REACTOR COOLANT LEAK	017	06/30/2004	04/16/2003	04/16/2008	EF
AP-RCS.2	LOSS OF REACTOR COOLANT FLOW	012	06/30/2004	04/16/2003	04/16/2008	EF
AP-RCS.3	HIGH REACTOR COOLANT ACTIVITY	011	06/30/2004	04/01/2002	01/22/2007	EF
AP-RCS.4	SHUTDOWN LOCA	017	03/18/2005	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	015	04/05/2005	04/30/2003	04/30/2008	EF
AP-SG.1	STEAM GENERATOR TUBE LEAK	004	04/10/2005	06/26/2002	06/26/2007	EF
AP-SW.1	SERVICE WATER LEAK	021	09/17/2004	04/21/2003	04/21/2008	EF
AP-SW.2	LOSS OF SERVICE WATER	007	01/21/2005	1//20/50/3	10/31/2006	EF
AP-TURB.1	TURBINE TRIP WITHOUT RX TRIP REQUIRED	014	04/10/2005	06/26/2002	06/26/2007	EF

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	021	04/10/2005	06/26/2002	06/26/2007	EF
AP-TURB.3	TURBINE VIBRATION	012	06/30/2004	06/26/2002	06/26/2007	EF
AP-TURB.4	LOSS OF CONDENSER VACUUM	018	04/10/2005	04/30/2003	04/30/2008	EF
AP-TURB.5	RAPID LOAD REDUCTION	008	04/10/2005	06/26/2002	06/26/2007	EF

PRAP TOTAL: 34

GRAND TOTAL: 34

GINNA STATION

CONTROLLED COPY NUMBER 23

RESPONSIBLE MANAGER

4-26-2005

EFFECTIVE DATE

CATEGORY 1.0

REVIEWED BY: _____

A. PURPOSE - This procedure provides the guidance necessary to place and maintain the plant in a Hot Shutdown Condition in the event that a control room evacuation is necessary.

B. ENTRY CONDITIONS/SYMPTOMS

1. ENTRY CONDITIONS - This procedure is entered from:

   a. ER-SC.2, RESPONSE TO INTRUSION BY ADVERSARY, if the Shift Manager determines to evacuate the Control Room.

   b. ER-FIRE.0, CR RESPONSE TO FIRE ALARMS AND REPORTS, if the fire is in the Control Complex and affects Control Room Habitability or continued safe plant operation.

2. SYMPTOMS - The symptoms of CONTROL ROOM INACCESSIBILITY are:

   a. Fire in the Control Complex, or

   b. Smoke in the Control Complex, or

   c. Noxious Fumes in the Control Room.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
1	Verify Reactor Trip: o At least one train of reactor trip breakers - OPEN o Neutron flux - DECREASING o MRPI indicates - ALL CONTROL AND SHUTDOWN RODS ON BOTTOM	Manually trip reactor. IF reactor trip breakers NOT open, THEN perform the following: a. Open Bus 13 and Bus 15 normal feed breakers. b. Verify rod drive MG sets tripped. c. Close Bus 13 and Bus 15 normal feed breakers. d. Reset lighting breakers. IF the Rx can NOT be tripped from the Control Room, THEN dispatch personnel to locally open the reactor trip breakers.
2	Verify Turbine Stop Valves - CLOSED	Manually trip turbine. IF turbine can NOT be tripped, THEN close both MSIVs.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

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

3 Evaluate Control Complex Conditions:

- o Verify no fire in progress

IF fire is NOT controllable, THEN perform the following:

a. Place BOTH ARVs in AUTO, set at 1005 psig.

b. Manually close both MSIVs.

c. Trip both RCPs AND place in PULL-STOP.

d. Place both PRZR PORV switches to CLOSE.

- PCV-430
- PCV-431C

e. Stop all charging pumps AND place in PULL-STOP.

f. Operating shift personnel proceed to Appendix R locker immediately outside the Control Room.

g. Go to ER-FIRE.1, ALTERNATIVE SHUTDOWN FOR CONTROL COMPLEX FIRE. DO NOT continue in this procedure.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

NOTE: PPCS terminals may be used for monitoring and trending plant parameters.

4	Establish Local Operating Stations (Refer to ATT-7.0, ATTACHMENT CR EVAC)	
5	Locally Verify Emergency AC Busses 14 And 18 - ENERGIZED (STA in A D/G room at ELCP)	Consider restoration of emergency AC power using ER-FIRE.1, ALTERNATE SHUTDOWN FOR CONTROL COMPLEX FIRE.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
6	Locally Establish AFW Flow To S/Gs (HCO):	
	a. Transfer MDAFW pump control to LOCAL	
	b. Start MDAFW pumps - ANY PUMPS RUNNING	b. Locally perform the following: 1) Open TDAFW pump steam supply valves at the steam header. • MOV-3504A • MOV-3505A 2) Insert pins in valve operators for TDAFW flow control valves to allow operation of valves. • AOV-4297 • AOV-4298 3) Throttle TDAFW flow to each S/G to maintain approximately 350 inches wide range level. 4) Go to Step 7.
	c. Verify MDAFW pump flow - LESS THAN 230 GPM PER RUNNING PUMP	c. Locally throttle MDAFW flow control valves to maintain flow less than 230 gpm per running pump. • MOV-4007 • MOV-4008
	d. Throttle MDAFP flow to each S/G to maintain approximately 350 inches wide range level. • MDAFP A, MOV-4007 • MDAFP B, MOV-4008	

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
7	Energize IPELIP (Switch At Bottom Of IBELIP)	

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
* 8	Monitor RCS Temperature (IBELIP)	
	a. RCS Temperature - STABLE	a. IF RCS temperature increasing, THEN go to Step 9. IF RCS temperature decreasing, THEN perform the following: 1) Locally throttle AFW flow to that required to maintain S/G level stable. • MDAFW Pump A, MOV-4007 • MDAFW Pump B, MOV-4008 • TDAFW Pump to S/G A, AOV-4297 • TDAFW Pump to S/G B, AOV-4298 2) IF cooldown continues, THEN close MSIVs as follows: (locked valve key required) o S/G A • Close IA to MSIV, V-5408A • Open vent valves, V-5471 AND V-5473 o S/G B • Close IA to MSIV, V-5409B • Open vent valves, V-5472 AND V-5474 3) IF MDAFW pump available to feed S/Gs, THEN manually isolate steam supply to TDAFW pump. • V-3504 • V-3505
	b. Go to Step 10.	

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
9	Monitor RCS Temperature (IBELIP)	
	a. RCS temperature - INCREASING	a. To to Step 10.
	b. Locally throttle S/G ARVs to stabilize RCS temperature.	
	c. IF ARVs NOT adequate, THEN perform the following: 1) Check open MSIVs or open MSIV bypass valves as necessary. • S/G A, V-3615 • S/G B, V-3614 2) Open priming ejector steam supply root valve, V-3578 3) Throttle open selected priming ejector steam supply to 200 psig (PI-2019) • Priming ejector A, V-3581 • Priming ejector B, V-3580	
10	Locally Establish Charging Flow Control (CO):	
	a. Transfer charging pump control to LOCAL	
	b. Verify at least one charging pump - RUNNING	b. Locally start one charging pump.
	c. Check PRZR level - GREATER THAN 13% (charging pump room and AFW pump area, west wall)	c. Locally increase charging pump speed to restore PRZR level to greater than 13%. IF necessary, THEN locally start a second charging pump.
	d. Locally control charging pump speed and letdown orifices to restore PRZR level to 35%	

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
11	Locally Monitor PRZR Pressure - PRESSURE STABLE (AFW pump area, west wall)	IF pressure increasing, THEN ensure RCS temperature and PRZR level stable. IF pressure decreasing, THEN perform the following: a. Transfer PRZR heater backup group to local control (MDAFW pump area). b. Verify PRZR level greater than 13%. c. Energize PRZR heater backup group.
12	Check SW Pumps - AT LEAST ONE RUNNING IN EACH LOOP (CRF, Locally in the Screenhouse)	Locally close SW Pump breakers to establish one SW pump running in each loop. o Loop A • Bus 18 Position 29C, SW Pump A • Bus 17 Position 27C, SW Pump B o Loop B • Bus 18 Position 29D, SW Pump C • Bus 17 Position 27D, SW Pump D

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
13	Transfer CNMT Recirc Fan Control To LOCAL And Check - AT LEAST TWO FANS RUNNING (At local operating stations by TDAFW pump)	Establish two fans running.
*14	Monitor S/G Levels (AFW pump area, west wall): o Levels - APPROXIMATELY 350 INCHES o Levels - STABLE	Locally throttle AFW flows to maintain S/G level approximately 350 inches wide range level. • MDAFW pump A, MOV-4007 • MDAFW pump B, MOV-4008 • TDAFW pump to S/G A, AOV-4297 • TDAFW pump to S/G B, AOV-4298

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
15	Establish CSD Xenon Free Boron Concentration:	
	a. Determine amount of boron required (Refer to O-3.1, BORON CONCENTRATION FOR THE XENON FREE ALL RODS IN - MOST REACTIVE ROD STUCK OUT SHUTDOWN MARGIN)	
	b. Locally open emergency borate valve, MOV-350 (Primary AO)	b. Perform the following: 1) Locally open manual charging pump suction from RWST, V-358 (charging pump room between A and B pumps). 2) Go to Step 15e.
	c. Transfer boric acid pump control to LOCAL (Primary AO)	
	d. Start one boric acid pump (Primary AO)	
	e. Check if required amount of boric acid added	e. Continue with Step 16. WHEN required amount of boric acid added, THEN do Step 15f.
	f. Stop boration as follows: 1) Stop all boric acid pumps 2) Locally close emergency borate valve, MOV-350	

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
16	Evaluate Control Room Conditions - CONTROL ROOM HABITABLE	Return to Step 5.
17	Evaluate MCB Annunciator Status (Refer to AR Procedures)	

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

NOTE: When the control room is manned by NRC licensed personnel, then equipment control may be transferred back to the control room in an orderly manner. Consult plant staff for additional guidance.

18 Establish Normal Control Room Operation:

a. Restore normal control room operation of equipment

- PRZR heaters
- Charging pumps
- SW pumps
- CNMT recirc fans
- ARVs
- TDAFW pump steam supplies
- TDAFW pump flow control valves
- Letdown orifice valves
- MOV-350
- BAST pumps
- Other equipment that was locally operated

b. Verify 431K in AUTO

b. Place 431K in AUTO, if desired.

c. Verify PRZR spray valves in AUTO

c. Place PRZR spray valves in AUTO, if desired.

d. Ensure PRZR heaters restored:

- o PRZR proportional heaters breaker - CLOSED
- o PRZR backup heaters breaker - RESET, IN AUTO

e. Verify one charging pump in AUTO

e. Place one charging pump in AUTO, if desired.

f. Consult Plant Staff to determine if cooldown is necessary

f. IF cooldown NOT required, THEN go to O-3, HOT SHUTDOWN WITH XENON PRESENT.

g. At least one RCP - RUNNING

g. Perform the following:

1) Ensure 2 control rod shroud fans running.

2) Go to ES-0.2, NATURAL CIRCULATION COOLDOWN, Step 1.

h. Go to O-2.2, PLANT SHUTDOWN FROM HOT SHUTDOWN TO COLD SHUTDOWN

-END-

AP-CR.1 APPENDIX LIST

TITLE

1) ATTACHMENT CR EVAC (ATT-7.0)