PACIFIC GAS AND ELECTRIC COMPANY
DEPARTMENT OF NUCLEAR PLANT OPERATIONS
DIABLO CANYON POWER PLANT UNIT NOS. 1 AND 2
EMERGENCY OPERATING PROCEDURE NO. OP-0

TITLE: REACTOR TRIP WITH SAFETY INJECTION

SCOPE

This procedure covers the initial operating steps to be taken in the event of a reactor trip with safety injection signal. The safety injection signal may occur at some time after the reactor trip has taken place. If this is the case, the operator will cease using EOP-5 (Reactor Trip without Safety Injection) procedure and will use this procedure to control and analyze the plant condition.

SYMPTOMS[1]

The following symptoms are typical of those which may arise in a plant which is undergoing a loss of reactor coolant, loss of secondary coolant or steam generator tube rupture (one or more symptoms in each category may appear in any order):[2]

LOSS OF REACTOR COOLANT

Lo Pressurizer Pressure
Lo Pressurizer Water Level
Hi Pressurizer Water Level
Letdown Isolation/Pressurizer Heater Cutout
Increased Charging Flow
Hi Containment Pressure
Hi Containment Temperature
Hi Containment Humidity
Hi Containment Radiation
Hi Containment Recirc. Sump Water Level

PRELIMINARY

1. The process variables referred to in this Instruction are typically monitored by more than one instrumentation channel. The redundant channels should be checked for consistency while performing the steps of this Instruction.

2. The pressurizer water level indication should always be used in conjunction with other specified reactor coolant system indications to evaluate system response and to initiate manual operator actions.

APPROVAL _____ _____
PLANT SUPERINTENDENT DATE

LOSS OF SECONDARY COOLANT

Lo Pressurizer Pressure

Lo Pressurizer Water Level

Letdown Isolation/Pressurizer Heater Cutout

Lo-Lo Reactor Coolant Tavg

Hi Containment Pressure

Hi Containment Temperature

Hi Containment Recirc. Sump Level

Steam Flow/Feedwater Flow Mismatch

Lo Steam Line Pressure (one or all Steam Lines)

Lo Steam Generator Water Level

Hi Steam Flow (one or all Steam Lines)

Lo Feedwater Pump Discharge Pressure

STEAM GENERATOR TUBE RUPTURE

Hi Air Ejector Radiation

Lo Pressurizer Pressure

Lo Pressurizer Water Level

Increasing Charging Flow

Letdown Isolation/Pressurizer Heater Cutout

Steam Flow/Feed Flow Mismatch

Hi Steam Generator Blowdown Radiation

Increasing Steam Generator Water Level

AUTOMATIC ACTIONS

1. Reactor trip and turbine trip.
2. Safety injection initiated.

OBJECTIVES

1. To verify the reactor trip and safety injection.

NOTE: If the plant is in a condition which warrants a reactor trip and safety injection and an automatic reactor trip and safety injection has not yet occurred, it is the reactor operators responsibility to manually initiate the reactor trip and safety injection.

2. To verify all SI equipment is operating and performing the intended function.

3. To monitor plant parameters and diagnose the initiating SI signal.

4. To mitigate the consequences of a valid SI signal by providing direction once the initiating signal is identified.

IMMEDIATE OPERATOR ACTIONS

ACTIONS	COMMENTS
1. Verify the following automatic actions.	1. If the action has not occurred, use manual control to satisfy the requirement.
a. Reactor trip (all rods on bottom, DRPI - Nuclear Instruments Decreasing.)	
b. Turbine trip (all four SV closed on EH panel.)	
c. Vital 4160 busses F, G and H transferred to startup power (breaker positions on VB-4.)	
d. Vital 4160 busses F, G and H voltage normal (120 volts indicated on 480 volt vital busses F, G and H, VB-4.)	
e. Diesel generators running (diesel RPM on VB-4.)	
f. Verify auxiliary building ventilation system in building and safeguards mode (mode light on ventilation section of VB-4.)	
g. Verify control room ventilation system in mode 4 (mode light on VB-4.)	
h. Verify both motor driven auxiliary feedwater pumps running and all 4 auxiliary feedwater LCV open. (Motor breaker position lights and LCV position indicators on VB-3.)	

ACTION	COMMENTS
i. Feedwater isolation (valve position lights on VB-3).	
j. Check the safeguards postage stamp monitor lights on VB-1. If 2 steam loops have Hi steam flow in alarm with any 2 loop Lo pressure or any 2 loop in Lo-Lo Tavg in alarm, then: Verify all 4 main steam isolation valves, bypass valves and all 4 steam generator blowdown stop valves IC closed (valve position indication lights on VB-3).	
k. Verify all safety injection pumps have started and automatic valve operations have occurred (all SI/FW ISOL/STM GEN LEVEL postage stamp monitor lights on VB-1 not in alarm).	
l. Verify containment Phase A and containment ventilation isolation (all containment Phase A postage stamp monitor lights on VB-1 not in alarm).	
2. Verify the following minimum pump flows. If the minimum flows <u>are not</u> occurring, attempt to operate equipment manually or locally to establish the flows. If <u>minimum</u> flows as indicated below <u>are</u> indicated, continue with Step 3 of this procedure.	
a. Minimum of one charging pump running with flow via BIT indicated on FI 917. (VB-1)	
b. Minimum of one safety injection pump running with flow indicated when PZR pressure is <u>less</u> than the SI pump shutoff head (VB-1).	b. <u>NOTE:</u> If PZR Pressure is greater than the shutoff head of the SI pump, continue on with this procedure. Continue to monitor PZR pressure and verify SI pump flow if pressure drops below the shutoff head of the SI pump.

ACTION	COMMENTS
c. Verify 1 or 2 below: 1) Both motor driven AFP running and flow indicated to all 4 steam generators (VB-3). OR 2) Start the steam driven AFP and establish flow to all 4 generators (VB-3).	c. NOTE: Allow full auxiliary feedwater flow to the steam generators until the narrow range steam generator level indicators indicate a level of 28%. This will assure the SG tubes are covered even in a bad containment environment.
d. Verify RCS heat removal by 1) Observing automatic steam dump to condenser or atmospheric steam dump via the 10% steam dump valves (VB-3). AND 2) RCS Tavg decreasing to no-load temperature (CC-1).	d. Atmospheric steam dump will be blocked by an existing "Turbine Tripped" condition. If condenser steam dump has been blocked due to a control malfunction or loss of the "Condenser Available" condition, decay heat removal will be effected by automatic actuation of the steam generator 10% atmospheric steam dump valves, or, if these prove ineffective, the steam generator code safety valves. In this event, steam pressure will be maintained at the set pressure of the controlling valve(s) and reactor coolant average temperature will stabilize at approximately the saturation temperature for the steam pressure being maintained.
3. Monitor containment pressure (VB-1), if containment pressure reaches or exceeds 22 psig, verify the following: a. Main steam isolation valves and bypass valves closed (VB-3). b. Steam generator blowdown valves IC close (VB-3).	

ACTION	COMMENTS
c. Containment spray initiated (phase B isolation postage stamp monitor lights not in alarm VB-1).	c. If actions a through d do not occur automatically when containment pressure reaches 22 psig, initiate the action manually.
d. Phase B isolation (phase B isolation postage stamp monitor lights not in alarm VB-1).	
e. Manually trip all 4 RCP's.	e. CCW to the lube oil coolers will be lost on the phase B isolation.
4. Monitor wide range RCS hot leg temperatures. If any temperature approaches 700°F, assign an operator to perform Appendix B (Determination of Adequate Core Cooling).	4. Also monitor P-250 point U0091, average core thermocouple reading °F.
ACCIDENT DIAGNOSTICS	
1. Evaluate RCS pressure:	
a. If PZR pressure is below 1950 psig or decreasing, close or verify closed the following valves: Pressurizer Spray Valve PCV 455A Pressurizer Spray Valve PCV 455B Auxiliary Spray Valve 8145 Pressurizer Power Relief Valve PCV 474 Pressurizer Power Relief Valve PCV 456 Pressurizer Power Relief Valve PCV 455C	a. Verify closed by observing position indication lights and discharge pipe temperature indicators. The diagnostic chart attached to this procedure is presented to clarify the diagnostics. It is not to be used in lieu of the procedure.
b. If PZR pressure is greater than 1950 psig and stable or increasing, go to Step 1 of Subsequent Operator Actions.	b. If RCS pressure has previously decreased below 1850 psig and is now increasing under the influence of the charging pumps, the operator is cautioned that these are small Loca symptoms.
2. If PZR pressure continues to decay below 1365 psig or is below 1365 psig and stable.	2. NOTE: The conditions for stopping RCP must be continuously monitored throughout the transient.

ACTION	COMMENTS
a. Again verify a minimum of one charging pump delivering flow and one SI pump delivering flow to the RCS	
THEN	
b. STOP all four reactor coolant pumps. Maintain seal water flow to the RCP seals by adjusting the reciprocal charging pump speed or FCV 128.	
c. If component cooling water to the RCP's is isolated due to a containment phase B isolation, stop all RCP's within 5 minutes and maintain seal flow as above.	
3. If condenser air ejector radiation monitor is reading abnormally high radiation	
OR	
One steam generator level is increasing abnormally fast	
AND	
containment pressure, containment area radiation monitor, and containment recirc. sump level exhibit NORMAL readings, discontinue this procedure and begin procedure OP-3, Steam Generator Tube Rupture.	
4. If steam generator pressure is ABNORMALLY LOW in one steam generator as compared to the other steam generators, discontinue this procedure and begin procedure OP-2, Loss of Secondary Coolant.	

ACTION	COMMENTS
5. If containment pressure, containment area radiation monitor, or containment recirc. sump level exhibit ABNORMALLY HIGH or INCREASING levels, discontinue this procedure and begin procedure OP-1, Loss of Reactor Coolant.	5. NOTE: For very small coolant breaks inside the containment, the containment pressure and containment recirc. sump level may increase very slowly and possibly not recognizable by the operator immediately. Therefore, the operator should monitor these parameters throughout the transient.
6. If containment pressure, containment area radiation monitor and containment recirc. sump level remains stable in the pre-event range, discontinue this procedure and begin procedure OP-2, Loss of Secondary Coolant.	

SUBSEQUENT OPERATOR ACTIONS

ACTION	COMMENTS
1. Assume the event is NON SPURIOUS safety injection until all of the following items are verified.	
a. Containment pressure normal.	
b. Containment temperature normal.	
c. Containment recirc. sump level normal.	
d. Containment area radiation monitor normal.	
e. Condenser air ejector radiation normal.	
f. Auxiliary Bldg. control board area radiation normal.	
g. Reciprocal charging pump room area radiation normal.	
h. Plant ventilation particulate monitor normal.	
i. Plant ventilation radio gas monitor normal.	

ACTION	COMMENTS
If the above symptoms a through i are normal, and when	
j. Pressurizer pressure greater than 2025 psig.	j. CAUTION: If Step 1 items a to m cannot be verified, return to Diagnostics Step 1.
k. Pressurizer narrow range water level greater than 25%.	
l. RCS indicated subcooling greater than 35°F.	l. If the RCS subcooling meter is inoperable or is suspected to be incorrect, use wide range RCS pressure and the highest wide range Thot in conjunction with the attached RCS saturation curve (graph) to determine RCS subcooling.
m. At least one steam generator wide range water level indication indicates a stable and increasing water level and AFW flow is evident to that steam generator.	m. NOTE: AFW flow to all steam generators should be greater than 155 gpm per steam generator until level returns to the narrow range level instruments. If both motor driven AFW pumps are running and delivering flow, the steam driven AFW pump may be shutdown when the steam generators narrow range level indicators indicate 33%.
THEN	
2. Reset safety injection.	2. CAUTION: 1) Automatic reinitiation of safety injection will not occur after this step since the reactor trip breakers are open. If the operator has indication that an SI is required after this step, he must initiate it manually. CAUTION: 2) If loss of off-site power occurs after resetting safety injection, it will be necessary to load the safeguards equipment onto the vital busses manually. If safety injection is reinitiated manually after the loss of off-site power, the vital busses will automatically sequentially load the safeguard equipment.

ACTION	COMMENTS
	If manual loading or automatic loading is performed, verify the equipment given in Appendix A is loaded onto the vital buses.
a. Reset containment isolation phase A, train A and train B.	
b. Stop all but ONE charging pump and maintain RCP seal flow. If a centrifugal charging pump is left in service, open the centrifugal charging pump recirc. valves MO 8105 and 8106.	b. CAUTION: Stop one CC pump at a time and evaluate RCS pressure. if RCS pressure drops below 1850 psig, reinitiate SI and return to Step 1 of the diagnostics and consider a small break Loca.
c. If RCP's have been stopped, establish conditions for starting RCP's and start at least one RCP.	
d. Close the BIT inlet and outlet valves 8803A and B, 8801A and B.	
e. Verify AC turbine bearing oil pump and Hi pressure seal oil backup pump running after oil pressure decays to 11 psig and turbine bearing lift pump starts at 600 RPM turbine speed.	
f. Establish normal charging.	
1) Open instrument air valves FCV-584 and 682.	
2) Check open or open normal charging valve 8146.	
3) Check close or close charging to auxiliary spray valve 8145 and alternate spray valve 8147.	
4) Open charging line isolation valves MO 8107 and 8108.	
5) Adjust HCV-142 and FCV-128 or reciprocal charging pump speed to achieve RCP seal flow and charging flow as required to maintain pressurizer level greater than 22%.	

ACTION	COMMENTS
6) Open RCP seal return valves, MO 8100 and 8112. Check seal flow normal.	
g. Establish normal letdown.	
1) Check open or open letdown valves LCV-459 and 460.	
2) Open letdown isolation valve 8152.	
3) Open one 75 gpm letdown orifice valve.	
4) Verify PCV-135 opening by observing letdown flow.	
h. Establish VCT makeup and transfer charging pumps suction to VCT.	
1) Adjust VCT makeup blend to the no-load concentration.	
2) Open VCT outlet valves LCV-112B and C.	
3) Close RWST to charging pump suction valves 8805A and B.	
4) Verify divert valve LCV-112A in AUTO.	
i. With pressurizer level approximately 22%, verify pressurizer pressure control in AUTO and pressurizer sprays and heaters controlling pressure.	
j. Stop both RHR and SI pumps.	
k. Stop all 3 diesel generators, place diesel generator control switches in AUTO.	
l. Insure the main and feedpump turbines on turning gear once 0 RPM speed is reached.	

ACTION	COMMENTS
3. Verify the following:	
a. With normal RCS charging, letdown and VCT makeup, the pressurizer water level remains above 17%.	
b. With pressurizer heaters in service, the pressurizer pressure remains above 1850 psig.	
c. RCS indicated subcooling greater than 35 °F.	
If item a., b., or c. above cannot be verified MANUALLY REINITIATE SAFETY INJECTION and return to diagnostic Step 1 of this procedure.	CAUTION: Stopping and starting of the ECCS pumps can cause pump motor overheating or reduced motor lift. Hence if the pumps are restarted once after termination an additional 15°F of subcooling should be added to the required subcooling prior to the second termination of the charging pumps.
4. IF after securing safety injection and transferring the plant to normal pressurizer pressure and level control, the reactor coolant pressure does not drop below the low pressurizer pressure setpoint for safety injection actuation AND the pressurizer water level remains above 17% span, AND the reactor coolant indicated subcooling is greater than 35 F, then consider the event a spurious safety injection.	CAUTION: Do not reset the reactor trip breakers until authorized by the Plant Superintendent.
a. Whenever the ECCS are activated, the plant is in a condition designated as an unusual event. Carry out the instruction given in Emergency Procedures General Appendix 2 (Notification of Off-Site Personnel in the Event of Emergency).	

ACTION	COMMENTS

SPURIOUS SI SIGNAL RECOVERY

1. Proceed to a normal Hot Standby condition as follows.

   a. If steam line isolation has occurred:

      1) Close or check closed all 35 and 40% steam dump valves.

      2) Prepare or verify main condenser available for service.

      3) Equalize and open all 4 MSIV's

      CAUTION: Monitor steam generator pressure closely during this operation. Immediately close all MSIV's if steam pressure decays during this operation.

      4) Establish steam dump to condenser using steam pressure mode set at 1005 psig.

      5) Verify all atmospheric steam dump valves closed.

   b. Open the main generator motor operated disconnect switch and reenergize the unit auxiliary transformers by back-feeding from the 500 KV yard. Transfer all station auxiliary busses (12 and 4 KV busses) to the unit auxiliary transformers.

   c. Return the auxiliary building ventilation system to normal by resetting the "S" signal on both POV cabinets and selecting building only mode on VB-3.

   d. Reset both Units 1 and 2 control room ventilation systems on Unit 2 radiation control board and verify both Units 1 and 2 ventilation systems return to the normal mode of operation.

   e. When directed by the SFM, shutdown the following:

      1) One auxiliary saltwater pump.

ACTION	COMMENTS

2) Steam driven auxiliary feedwater pump after steam generator levels are greater than 33% and motor driven pumps are controlling level.

3) Close CFCU maxi flow valves then shutdown 1 CCW pump.

4) Remove 2 CFCU's from service and place the running CFCU's on fast speed.

f. Verify a BA transfer pump is running and open the BIT recirc. valves to begin increasing BIT concentration. Call Chemical and Radiation Department to begin sampling the BIT and BAT.

g. Reset containment ventilation isolation trains A and train B.

1) Open containment rad. Gas monitor valves FCV-681, 678 and 679.

2) Verify normal readings on containment air particulate and radio gas monitors on RMS board.

h. Reset radwaste isolation valves reset switches.

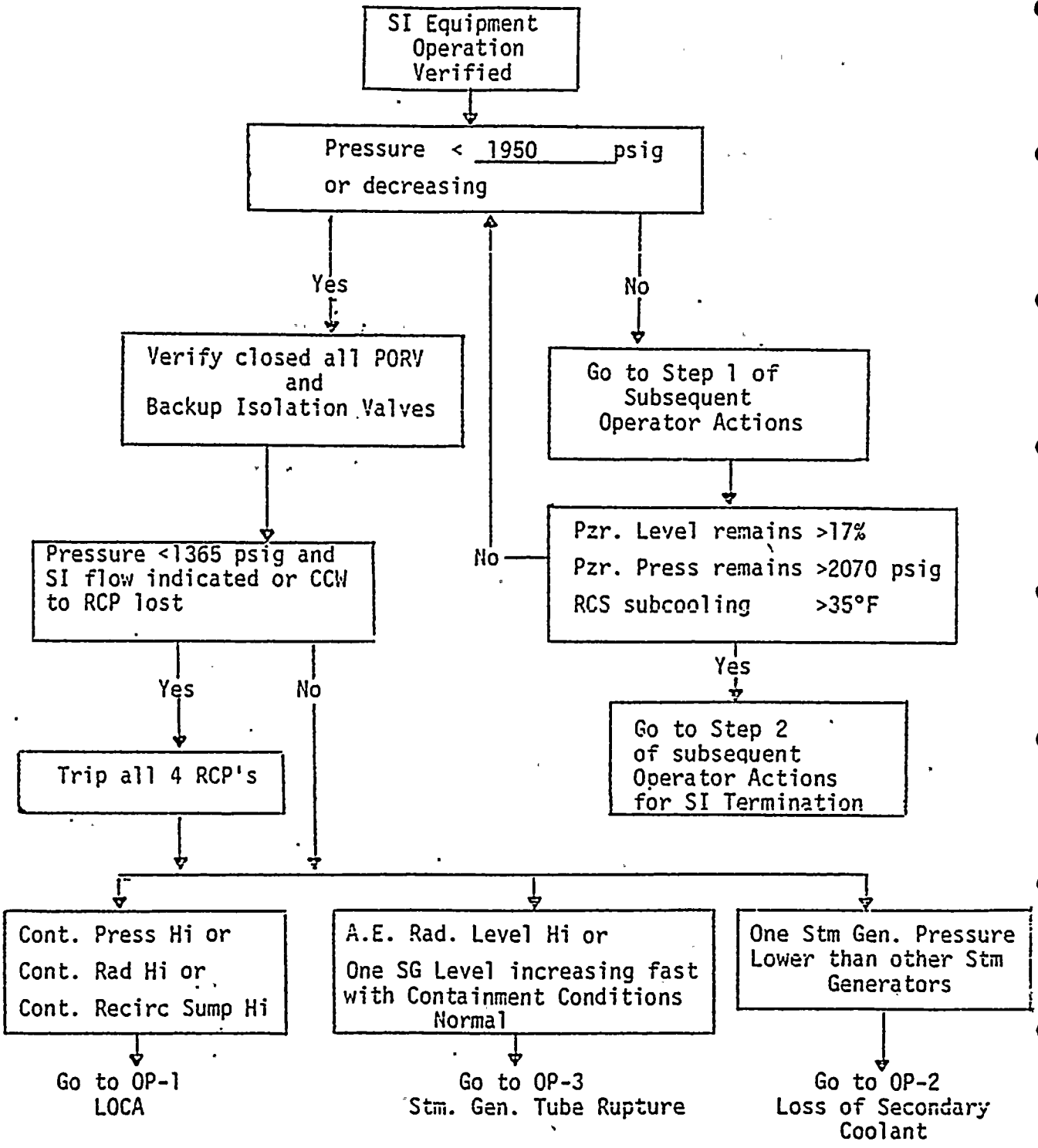
1) Have the auxiliary operator verify the following valves are in the desired position. (Use the phase A isolation monitor lights test switch to power the monitor light box to verify positions.) FCV's 253, 255, 258, 500, 254, 256, 257, 260 and 501.

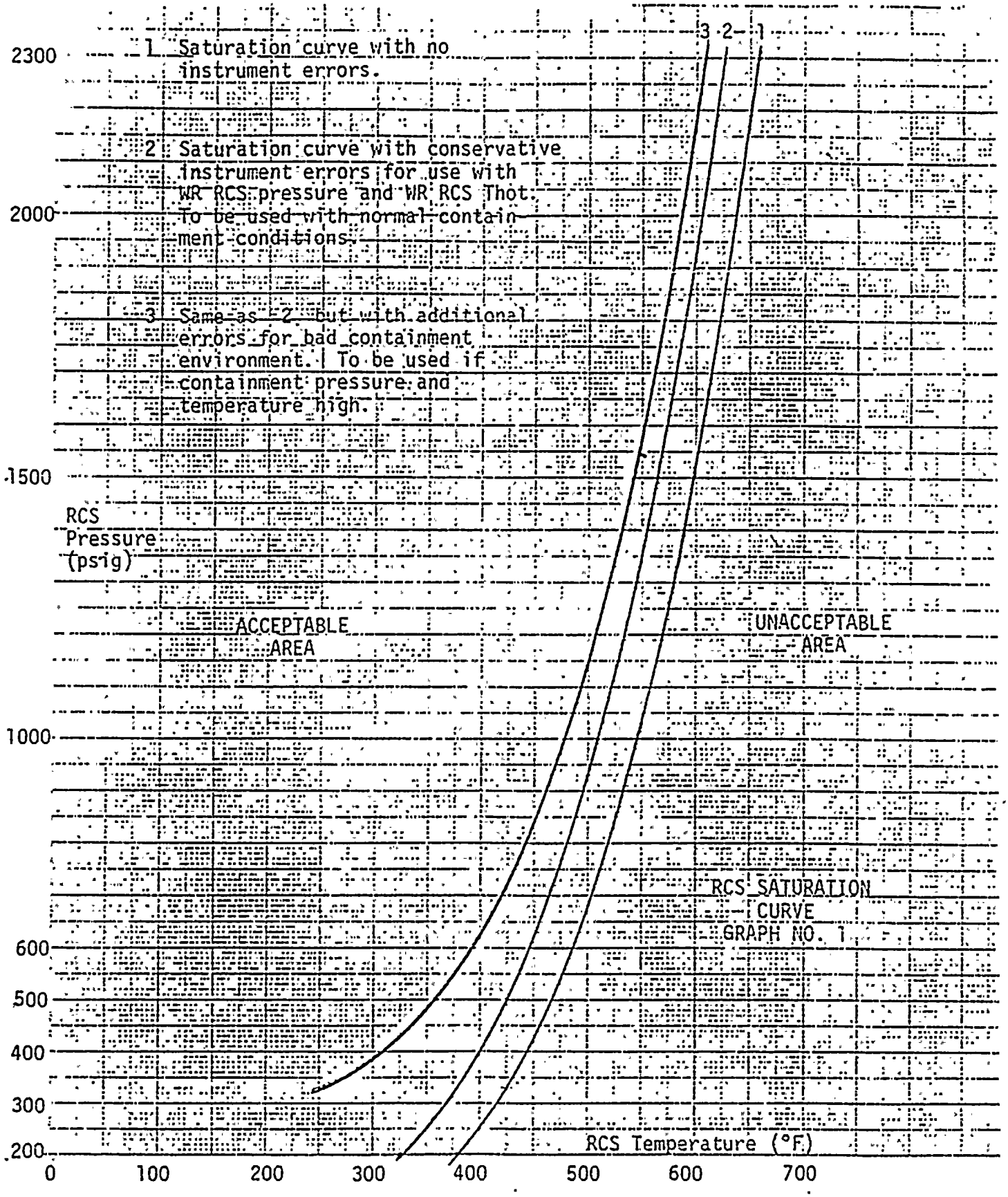
i. Open fire water valve FCV-633 and primary water to containment valve 8029.

j. Open valve 8045 N_2 to PRT.

k. If the incore chiller has been in service prior to the SI, open incore chiller valves FCV 655, 657, 654 and 656.

ACTION	COMMENTS
1. If the gross failed fuel detector has been in service prior to the SI, open Hot Leg sample valves 9356A and B.	
1) Verify flow returns on the GFFD flowmeter.	
2) Verify the GFFD countrate returns on scale and stabilizes at a value below the post SI countrate on the recorder.	
m. Open the pressurizer steam space sample valves 9354A and B.	
n. Open pressurizer relief tank gas analyzer valve 8034A.	
2. Maintain Hot Standby conditions until authorized to proceed with a normal startup or inform the plant superintendent that the unit is proceeding to Cold Shutdown.	


SI Equipment Operation Verified
Pressure < 1950 psig or decreasing
Yes
No
Verify closed all PORV and Backup Isolation Valves
Go to Step 1 of Subsequent Operator Actions
Pressure <1365 psig and SI flow indicated or CCW to RCP lost
No
Pzr. Level remains >17%
Pzr. Press remains >2070 psig
RCS subcooling >35°F
Yes
Yes
No
Trip all 4 RCP's
Go to Step 2 of subsequent Operator Actions for SI Termination
Cont. Press Hi or
Cont. Rad Hi or
Cont. Recirc Sump Hi
A.E. Rad. Level Hi or
One SG Level increasing fast with Containment Conditions Normal
One Stm Gen. Pressure Lower than other Stm Generators
Go to OP-1 LOCA
Go to OP-3 Stm. Gen. Tube Rupture
Go to OP-2 Loss of Secondary Coolant


1 Saturation curve with no instrument errors.
2 Saturation curve with conservative instrument errors for use with WR RCS pressure and WR RCS Thot. To be used with normal containment conditions.
3 Same as 2 but with additional errors for bad containment environment. To be used if containment pressure and temperature high.
3
2
1
2300
2000
1500
1000
600
500
400
300
200
RCS Pressure (psig)
ACCEPTABLE AREA
UNACCEPTABLE AREA
RCS SATURATION CURVE
GRAPH NO. 1
RCS Temperature (°F)
0
100
200
300
400
500
600
700

APPENDIX A

BLACKOUT WITH SAFETY INJECTION EMERGENCY LOADING OF VITAL BUSSES

1. If the vital busses loose voltage prior to resetting the safety injection signal, the vital busses will automatically load the vital equipment given below. Verify the equipment has been loaded by observing breaker lights on the control board.

2. If the vital busses loose voltage after the safety injection signal has been reset, load or verify loaded the equipment given below onto the vital busses manually. Allow approximately 4 seconds between loading of each piece of equipment onto a given vital bus.

VITAL BUS		VITAL BUS		VITAL BUS	
NOTES	F	NOTES	G	NOTES	H
2	D/G 1-3	2	D/G 1-2	2	D/G 1-1
2&3	MCC 1-F	2&3	MCC-1-G	2&3	MCC 1-H
2	CC Pp 1-1	2	CC Pp 1-2		SI Pp 1-2
	SI Pp 1-1	4	Cont Spray Pp 1-1	4	Cont Spray Pp 1-2
1&2	CFCU 1-2		RHR Pp 1-1		RHR Pp 1-2
1&2	CFCU 1-1	1&2	CFCU 1-3	1&2	CFCU 1-4
2	CCW Pp 1-1	1&2	CFCU 1-5	1&2	CCW Pp 1-3
2	ASW Pp 1-1	2	CCW Pp 1-2	2	AFW Pp 1-2
2	AFW Pp 1-1	2	ASW Pp 1-2		

NOTES:

1. If these loads are on the bus, verify they are running in low speed.

2. These loads should already be loaded on the vital bus due to the loss of voltage signal.

3. The vital 480 volt MCC will not strip from the bus; however, it should be verified on the bus.

4. Load the cont spray pumps only if they were running prior to the blackout.

APPENDIX B

DETERMINATION OF ADEQUATE CORE COOLING

This appendix provides the guidance to determine adequate core cooling if inadequate core cooling is suspected. Further, the instructions for regaining adequate core cooling is presented.

ACTION	COMMENTS
1. If 1 or more RCS hot leg wide range RTD's approach 700°F proceed as follows.	
2. If P-250 point U0091 is available, proceed with Step 3. If the P-250 point U0091 is not available go to Step 5 immediately.	
3. Determine the core outlet average thermocouple reading. If the average core outlet reading is less than 1200°F, ADEQUATE CORE COOLING EXISTS. Notify the control operator adequate core cooling exists.	3. Continue to monitor the P-250 core outlet average temperature.
4. If the core outlet average therocouple reading is greater than 1200°F, INADEQUATE CORE COOLING EXISTS. Notify the control operator and immediately go to Step 11.	
5. If the core outlet thermocouple readings are available at the incore board in the control room, proceed with Step 6. If the therocouples are not available, go to Step 9.	
6. Determine the average of all available thermocouple readings. If the average is less than 700°F, ADEQUATE CORE COOLING EXISTS. Notify the control operator.	6. Continue to take average readings as long as the wide range hot leg loop temperatures are greater than 700°F.

APPENDIX B (Cont.)

ACTION	COMMENTS
7. If the average of the thermocouples is greater than 700°F (all pegged hi), INADEQUATE CORE COOLING may exist. Notify the control operator and go to Step 10.	
8. If both the P-250 incore thermocouple reading and the incore readings at the incore board in the control room are unavailable, proceed with Step 9.	
9. Proceed to the control board and determine if all hot leg wide range loop RTD's are pegged hi. If the hot leg temperature are not pegged hi, ADEQUATE CORE COOLING EXISTS. If the hot leg temperature are pegged hi, INADEQUATE CORE COOLING MAY EXIST. Notify the control operator and go to Step 10.	9. Continue to monitor RCS hot leg temperature if they are hi but not pegged hi.
10. If SI flow to the RCS or auxiliary feedwater flow is being delivered to the steam generators, ADEQUATE CORE COOLING EXISTS. If neither SI flow to the RCS nor AFW flow to the steam generators can not be verified, INADEQUATE CORE COOLING EXISTS. Notify the control operator and proceed to Step 11.	10. Continue to monitor SI and AFW flow.
INADEQUATE CORE COOLING INSTRUCTIONS	
11. Declare a General Emergency. Carry out the instructions given in the Emergency Procedures General Appendix 2 (Notification of Off-site Personnel in the Event of an Emergency).	
12. Attempt to establish SI flow to the RCS or AFW flow to the steam generators.	

APPENDIX B (Cont.)

ACTION	COMMENTS
13. Continue monitoring core outlet temperature to determine the effectiveness of the remaining actions.	
14. DEPRESSURIZE THE RCS by method a or b below.	14. Monitor RWST level and perform Appendix A when the RWST lo level alarm is reached.
a. Dump steam to the condenser or atmosphere if the steam generator levels are in the narrow range and AFW flow is evident.	a. This is the preferred method.
b. Verify the SIS or charging pumps are running and available to deliver water to the RCS THEN Open the pressurizer PORV's.	b. Opening the PORV will reduce the RCS pressure to allow SI flow to cool the core.
15. If no means of depressurization are available, or if the depressurization did not result in decreasing core exit thermocouple or side range hot leg temperature, THEN START A RCP if possible.	15. Start one RCP. No conditions are imposed on starting the pump. The pump must be started to move coolant through the core.