PGandE Letter No.: DCL-84-118

ATTACHMENT 1

Updates Included In This Submittal

DIABLO CANYON EMERGENCY PLAN
IMPLEMENTING PROCEDURES

Volume 3A

EP OP-3A, Revision 5
EP OP-8, Revision 8
EP OP-13, Revision 3
EP OP-25, Revision 2
EP M-1, Revision 11
EP R-1, Revision 11
EP R-7, Revision 4

Volume 3B

EP EF-5, Revision 4
EP RB-2, On-The-Spot Change

CORPORATE EMERGENCY RESPONSE PLAN
IMPLEMENTING PROCEDURES

CERP 2.2, Revision 1

ATTACHMENT 2

Location of Proprietary/Privacy Information

Procedure:

R-1, pages 2, 11 and 16 of 16; Attachment "Safety, Health, and Claims Personnel to be Contacted for Reporting of Injuries at Diablo Canyon" - pages 1 and 2 of 2.

R-7, pages 9 and 10 of 10.

M-1, pages 1-3 of 5; Attachment - "Company Panel of Physicians, Ambulances and Hospitals" - pages 1 and 2 of 2; Attachment - "Panel of Physicians, Ambulances and Hospitals, Coast Valleys Division" - pages 2.1-2.6 of 6; Attachment - "Safety, Health and Claims Personnel to be Contacted for Reporting of Injuries at Diablo Canyon" - pages 1 and 2 of 2; Attachment 10 - Appendix Z - page 1 of 1.

EF-5, page 11 of 38; pages 26, 27, 28, 29, 30, 31 and 32 of 38; Attachment - "Emergency Facility Phone Numbers" - page 1 of 1; Attachment - "Technical Support Center Check List" - pages 2 and 3 of 3; Attachment - "Emergency Operating Facility Equipment Function Checklist" - pages 1-3 of 3.

CURRENT

EMERGENCY PLAN

IMPLEMENTING PROCEDURES

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03/26/84

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03/26/84

PG&E **Pacific Gas and Electric Company**

DEPARTMENT OF NUCLEAR PLANT OPERATIONS

DIABLO CANYON POWER PLANT UNIT NO(S) 1 AND 2

NUMBER EP OP-3A
REVISION 5
DATE 2/8/84
PAGE 1 OF 23

TITLE: EMERGENCY PROCEDURE
STEAM GENERATOR TUBE RUPTURE

IMPORTANT TO SAFETY

APPROVED: R. C. Thornberry 2-27-84
PLANT MANAGER DATE

SCOPE

This procedure covers the operating steps to be taken in the event of a steam generator tube rupture. It is assumed that reactor trip and safety injection actuations have occurred. The operator should have already performed Emergency Operating Procedure OP-0, "Reactor Trip with Safety Injection". This procedure and changes thereto requires PSRC review.

SYMPTOMS

(See OP-0 symptoms)

AUTOMATIC ACTIONS

(See OP-0 Automatic Actions)

OBJECTIVES

1. To minimize the release of radioactive material by identifying and isolating the faulted steam generator and by reducing reactor coolant system pressure below the steam generator valve setting (1065 psig).

2. To establish the capability to supply feedwater to all steam generators and to isolate feedwater to the faulted steam generator.

3. To maintain the ability to remove the necessary residual heat from the reactor through the intact steam generators via the steam dump valves to the condenser or the atmosphere.

4. To maintain the reactor coolant system in a subcooled state during the recovery.

5. To prevent overflooding of the faulty steam generator.

IMMEDIATE OPERATOR ACTIONS

(See OP-0 Immediate Operator Actions)

SUBSEQUENT OPERATOR ACTIONS

ACTIONS	COMMENTS
1. Sound the site emergency alarm.	
2. Contact Chemistry & Radiation Department to sample containment atmosphere and all steam generators for abnormal radiation.	2. The steam generator samples are essential for subsequent recovery actions.
3. Identify the faulted steam generator by one of the following methods.	3. While attempting to identify and isolate the faulted steam generator, continue with this procedure up to step 17.
a. Observe steam generator water levels. The faulted steam generator should experience an unexpected rise in level. If required, momentarily reduce auxiliary feedwater flow to the steam generators and attempt to identify the faulted steam generator by level indications.	
b. Reset Containment Isolation Phase A, Train A and Train B.	
1) If a high blowdown radiation signal is NOT present, open or check open the inside containment SG blowdown isolation valves and open the sample valves FCV 250, 248, 246 and 244 one at a time to identify the faulted steam generator. Allow time between opening to allow sample flow to contact the radiation element. The steam generator blowdown with high radiation identifies the faulted steam generator.	

ACTIONS	COMMENTS
2) If high radiation level on steam generator blowdown liquid monitor has isolated steam generator blowdown and blowdown samples, determine the faulted steam generator as follows. First, check open or open the IC blowdown isolation valves, then cut in the S/G blowdown Hi Rad switch on VB-3 to override the high radiation trip signal and open FCV's 250, 248, 246 and 244 steam generators 1 through 4 blowdown sample valves, one at a time as necessary to compare radiation levels on each. The SG with the high radiation in the sample is the faulted SG.	
3) From the steam generator samples, identify the faulted Steam Generator by observation of abnormally high radiation in any one steam generator.	
4. When the faulted steam generator has been positively identified, ISOLATE THE FAULTED STEAM GENERATOR.	
a. Stop all AFW flow to the faulted steam generator.	a. Monitor the water level in the faulted steam generator throughout this procedure.

ACTIONS	COMMENTS
b. Close or verify closed, the following valves associated with the faulted steam generator. (VB3). Main Steam Isolation Valve, Main Steam Isolation Valve Bypass Valve, IC and OC Blowdown Valve, Blowdown Sample Valve, 10% Atmospheric Relief Valve.	b. The steam generator safety valves on the faulted steam generator may lift during this operation.
5. If the main steam isolation valves or the main steam isolation valve bypass valve on the faulted steam generator will not close, then close the main steam isolation valves and bypass valves on ALL nonfaulted steam generators and verify the nonfaulted steam generators 10% atmospheric relief valves maintaining steam generator pressure approximately 1035 psig.	
6. Verify closed and place in manual the 10% atmospheric relief valve on the faulted steam generator.	
7. If steam generator No. 2 is the faulted steam generator, close the aux. feedwater pump steam supply FCV 37. If steam generator No. 3 is the faulted steam generator, close FCV 38.	7. This will terminate the activity release from the faulted steam generator via the steam driven aux. feed pump.
8. Verify all pressurizer PORV's are closed. Verify by lit position lights that power is available to the pressurizer power operated relief valve backup isolation valves.	8. Verify by position lights and discharge line temperature indication.

ACTIONS	COMMENTS
9. Monitor the core exit thermocouple temperature for indications of inadequate core cooling. If indications of inadquate core cooling exist, perform Appendix C of this procedure.	9. Indications of inadequate core cooling are given in Appendix C of this procedure.
10. If RCS wide range pressure continues to decay below 1220 psig or is below 1220 psig and stable.	10. NOTE: The conditions for stopping RCP must be continuously monitored through step 18.
a. Again verify a minimum of one charging pump delivering flow and one SI pump delivering flow to the RCS.	
b. THEN, STOP all four reactor coolant pumps. Maintain seal water flow to the RCPseals by manually adjusting the reciprocating charging pump speed or FCV 128.	
c. Close the Centrifugal Charging pump recirculation valves (8105 and 8106)	c. NOTE: If the W.R. RCS pressure is increased above 2000 psig, reopen valves 8105 and 8106 to prevent pump damage.
d. 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.	
11. If the faulted steam generator was isolated by closure of its MSIV (per step 4 of this procedure) perform steps a. & b. below. If it was isolated as per step 5, go to step 12.	11. If the faulted steam generator has been identified, do not dump steam from the faulted steam generator. Maintain containment Phase A Isolation until necessary to reset for system operations.

ACTIONS	COMMENTS
a. If the condenser is available, open or verify open the nonfaulted steam generators main steam isolation valves and establish steam dump to the condenser. Transfer the steam dump control to the pressure control mode and verify set pressure at NO load pressure.	
b. If the condenser is not available, verify the 10% atmospheric relief valves holding steam pressure below the safety valve setpoint.	
12. Verify or establish power on the 480 volt vital buses, F, G and H.	12. This power, plus the normal and backup bottled air supply, will assure power sources available for at least one PZR PORV, steam generator PORV's and charging and letdown flowpaths. If loss of offsite power occurs, the letdown path will be to the PRT via the relief valve downstream of the orifice valves.
13. Verify RCS T_{avg} is at or approaching $T_{no\ load}$ under the influence of condenser or atmospheric relief valves from the nonfaulted steam generators. Adjust steam dump if required to achieve $T_{no\ load}$.	
14. Maintain maximum AFW flow until the steam generator water levels are in the narrow range. When the SG water levels approach 33% NR, verify automatic steam generator level control.	14. Observe the water levels closely for unexplained changes in one steam generator which may identify the faulted steam generator.

ACTIONS	COMMENTS
15. Monitor the condensate storage tank and upon reaching approximately 10% level, perform a. or b. below.	15. If the CST lo lo level alarm occurs, the operator has approximately 25 minutes to perform Steps a. or b.
a. Verify a level in the raw water storage reservoir; then open FCV-436 and FCV-437 (Reservoir supply to AFW pumps). Allow the AFW pumps to run during the transfer. Monitor the AFW flow closely. If AFW flow is lost, trip all 3 AFW pumps until the transfer is complete, then restart the pumps.	
b. If the raw water storage reservoir is not available, go to Appendix A (AFW Pump Suction Supply from Fire Water Tank Procedure). Allow the AFW pumps to run during the transfer. Monitor the AFW flow closely. If AFW flow is lost, trip all 3 AFW pumps until the transfer is complete, then restart the pumps.	
16. If the RCS pressure is above the shutoff head of the RHR pumps, RESET SAFETY INJECTION and stop both RHR pumps.	16. CAUTION:1)If the RCS pressure falls below the shutoff head of the RHR pumps, restart the pumps to deliver water to the RCS CAUTION:2)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.

ACTIONS	COMMENTS
	16. (Cont) CAUTION:3)If loss of offsite power occurs after resetting safety injection, it will be necessary to load the safeguards equipment onto the vital buses manually. If safety injection is reinitiated manually after the loss of offsite power, the vital buses will automatically sequentially load the safeguard equipment. If loss of offsite power occurs, go to Appendix B (Blackout With SI Emerg. Loading of Vital Buses).
17. DO NOT PROCEED BEYOND THIS STEP UNTIL THE FAULTED STEAM GENERATOR IS IDENTIFIED AND ISOLATED.	
18. Begin a Rapid cooldown of the RCS to 500 degrees F using only the nonfaulted steam generators.	
a. If the faulted steam generator was isolated by closure of the main steam isolation valves associated with the nonfaulted steam generators, dump steam only from the nonfaulted steam generators through the 10% atmospheric relief valves. If isolated per step 4, use step b. or c. below.	
b. Use the condenser steam dumps if the condenser is available. Go to steam pressure control mode if not already in this mode. Place the steam pressure controller in MANUAL and increase the demand as necessary cooldown.	b. This is the preferred method. When P-12 is reached, select Bypass Interlock on the Steam Dump Interlock Selector switches to permit the

ACTIONS	COMMENTS
c. If the condenser is not available, use the 10% atmospheric relief valves from the nonfaulted steam generators.	
19. Continue to monitor containment conditions, if containment sump level rises abnormally or if a containment sample (if available) indicates high activity in containment, go to OP-1 for further accident recovery.	
20. After the RCS has been cooled to 500 degrees F, if required, depressurize the RCS to the value equal to the faulted steam generator pressure. If pressurizer level has been off scale low, the level will probably return during this operation. Maintain minimum 35 degrees F subcooling during this operation.	20. During subsequent controlled RCS depressurization, the criteria for tripping RCP's on low pressure no longer applies.
a. If RCP's are in service, use pressurizer spray to reduce RCS pressure.	
b. If normal spray is not available, open one pressurizer Power Operated Relief Valve (PORV) to reduce RCS pressure. Verify closure of the valve by observing position indication and discharge line temperature decreasing, and if required, close the backup isolation valve.	b. NOTE: It may take 2-3 minutes for PORV discharge line temperature tp start decreasing

ACTIONS	COMMENTS
21. As RCS pressurize decreases, due to PZR spray or the PZR PORV being open, monitor PZR level and stop the depressurization when: a. PZR level exceeds 85%, b. OR RCS pressure decreases to the pressure of the faulted steam generator. Verify closure of the PORV by position indication and discharge line temperature. Verify closure of the spray valve by position indication.	
22. Continue to monitor RCS pressure and pressurizer water level.	
a. If pressurizer level continues to rise or is stable with continued RCS pressure decreasing after the depressurization is terminated, suspect leakage from the pressurizer steam space. If this condition persists and the PRT rupture disc is ruptured go to OP-1, "Loss of Coolant Accident".	a. Monitor PRT conditions and relief line temperatures to detect a possible stuck open valve. Close the appropriate PORV isolation valve if leakage is suspected.
b. If the pressurizer level continues to rise with rising RCS pressure, AND PRT conditions are stable, the SI flow is greater than the tube rupture flow.	

ACTIONS	COMMENTS
c. DO NOT continue in this procedure until the conditions of b. above are observed.	
23. When RCS pressure has increased by 200 psig after the termination of the depressurization,	
a. AND Pressurizer water level is greater than 22%	
b. AND indicated subcooling from the nonfaulted steam generator loops is greater than 35 degrees F	
c. THEN allow one centrifugal charging pump to operate for normal charging and RCP seals and shutdown the remaining charging, and SI pumps while maintaining operable safety injection flowpaths.	When the charging and SI pumps are shutdown the RCS pressure should decrease to the value of the faulted steam generator.
24. Establish normal charging.	24. Continue monitoring PZR level. If PZR level cannot be maintained above 22%, or indicated subcooling from the nonfaulted steam generator loops cannot be maintained greater than 35 degrees F, manually reinitiate SI and return to step 20 and continue.
a. Reset containment Phase A isolation if required.	
b. Check open or open normal charging valve 8146.	
c. Check closed or close charging to aux. spray valve 8145 and alt. spray bypass valve 8148 and alternate charging valve 8147.	
d. Open charging line isolation valves 8107 and 8108.	
e. Close the BIT inlet and outlet valves 8803A and B and 8801A and B.	

ACTIONS	COMMENTS
f. 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%.	
g. Open RCP seal return valves, 8100 and 8112. Check seal flow normal.	
h. Open RCP No. 1 seal bypass valve (8142) if RCS pressure is less than 1500 psig.	
25. Establish normal letdown.	
a. Check open or open letdown valves LCV-459 and 460.	
b. Open letdown isolation valve 8152.	
c. Open one 75 gpm letdown orifice valve.	
d. Verify PCV-135 opening by observing letdown flow.	
26. Establish VCT makeup and transfer charging pumps suction to VCT.	
a. Adjust VCT makeup blend to the cold Xe free concentration.	
b. Open VCT outlet valves LCV-112B&C.	
c. Close RWST to charging pump suction valves 8805 A&B.	
d. Verify divert valve LCV-112A in AUTO.	
27. Reestablish the use of the pressurizer heaters to control pressure. If required, transfer the pressurizer backup heaters groups 2 and 3 to the vital 480 volt buses G&H.	

ACTIONS	COMMENTS
28. If possible, establish conditions for starting No. 1 and No. 2 RCP's if the pumps have been shutdown.	28. The low pressure pump trip criteria no longer applies.
a. When conditions are established, start both RCP's.	a. Start both pumps to deliver spray regardless of whether these pumps are associated with a faulted steam generator.
29. If No. 1 and/or No. 2 RCP is running, shutdown No. 3 and and No. 4 RCP's.	29. This step will reduce the primary heat load.
30. With the plant in a stabilized condition, determine if the condenser will be available to receive steam dump during the subsequent cooldown.	
a. If the condenser is available, perform steps 31, 32 and 33 SIMULTANEOUSLY.	a. Failure to perform steps 31, 32 and 33 simultaneously may result in a loss of PZR level control.
b. If the condenser is not available, notify the Chemistry and Radiation Protection Department that a controlled activity release will be occuring. If time permits, verify that all faulted steam generator samples have been taken, then perform steps 31, 32, and 33 SIMULTANEOUSLY.	b. Consult the Vol. 9 curves to determine how long the plant can remain at hot standby before proceeding to cold shutdown.
31. Begin a controlled cooldown of the RCS using steam dump from the NONFAULTED steam generators only. Verify as steam dump begins that AFW system is maintaining ALL steam generator levels in automatic.	

ACTIONS	COMMENTS
Place the LCV for the faulted steam generator in automatic and verify normal AFW response to the faulted steam generator existing level. If the faulted steam generator level is low, verify feedwater flow to the steam generator; if level is high, NO feedwater flow to the steam generator.	
a. Maintain an RCS cooldown rate of about 50 degrees F/HR.	
b. Use the condenser dump valves by reducing the pressure setpoint. If the condenser is not available, use the 10% atmospheric relief valves. If the faulted steam generator was isolated as per step 5 of this procedure, use the 10% atmospheric relief valves.	
32. Simultaneous with the cooldown, dump steam from the faulted steam generator to the condenser.	
a. Bleed steam to the condenser using the Main Steam Isolation Valve BYPASS VALVE.	a. THIS IS THE PREFERRED METHOD.
b. If the condenser is not available, use the 10% atmospheric steam relief valves.	b. THIS IS NOT THE PREFERRED METHOD.
33. Simultaneous with the faulted steam generator pressure decay, control RCS pressure approximately the same as the faulted steam generator pressure.	33. This will minimize the mass RCS and the faulted steam generator. Stay within the limits on the Tech. Spec. cooldown curves during this operation.
a. Use PZR heaters and one of the following:	
b. Use normal PZR spray if possible OR	

ACTIONS	COMMENTS
c. Use auxiliary spray if letdown is in service OR d. Use PZR PORV intermittently if required. If the PZR PORV is used, continuously monitor PRT pressure, temperature, and level and take appropriate actions to maintain PRT integrity. Verify PORV closure by position indication and PRT conditons. If a RCS leak to the PRT is identified, close the PORV isolation valve.	
34. Determine the cold Xe Free Shutdown margin and borate if required to that concentration.	
35. At approximately 800 psig RCS pressure close all 4 accumulator injection isolation valves.	
36. When the RCS hot leg temperatures are reduced to less than 350 degrees F and RCS pressure is less than 400 psig, place the RHR in service using Operating Procedure B-2. (Residual Heat Removal System).	36. Do not collapse the PZR bubble.
37. Continue the cooldown in this mode until the RCP is stopped, then continue to control RCS and faulted steam generator pressures until the RCS hot leg temperatures are below 200 degrees F, then use auxiliary spray until the RCS pressure and faulted steam generator pressures equilibrate.	37. Use Operating Procedure L-5 (Plant Cooldown From Minimum Load to Cold Shutdown) in conjunction with this procedure during the cooldown. Enter L-5 at the point where RHR is to be put into service.
38. Continue operation of the RHR, letdown and charging as required.	

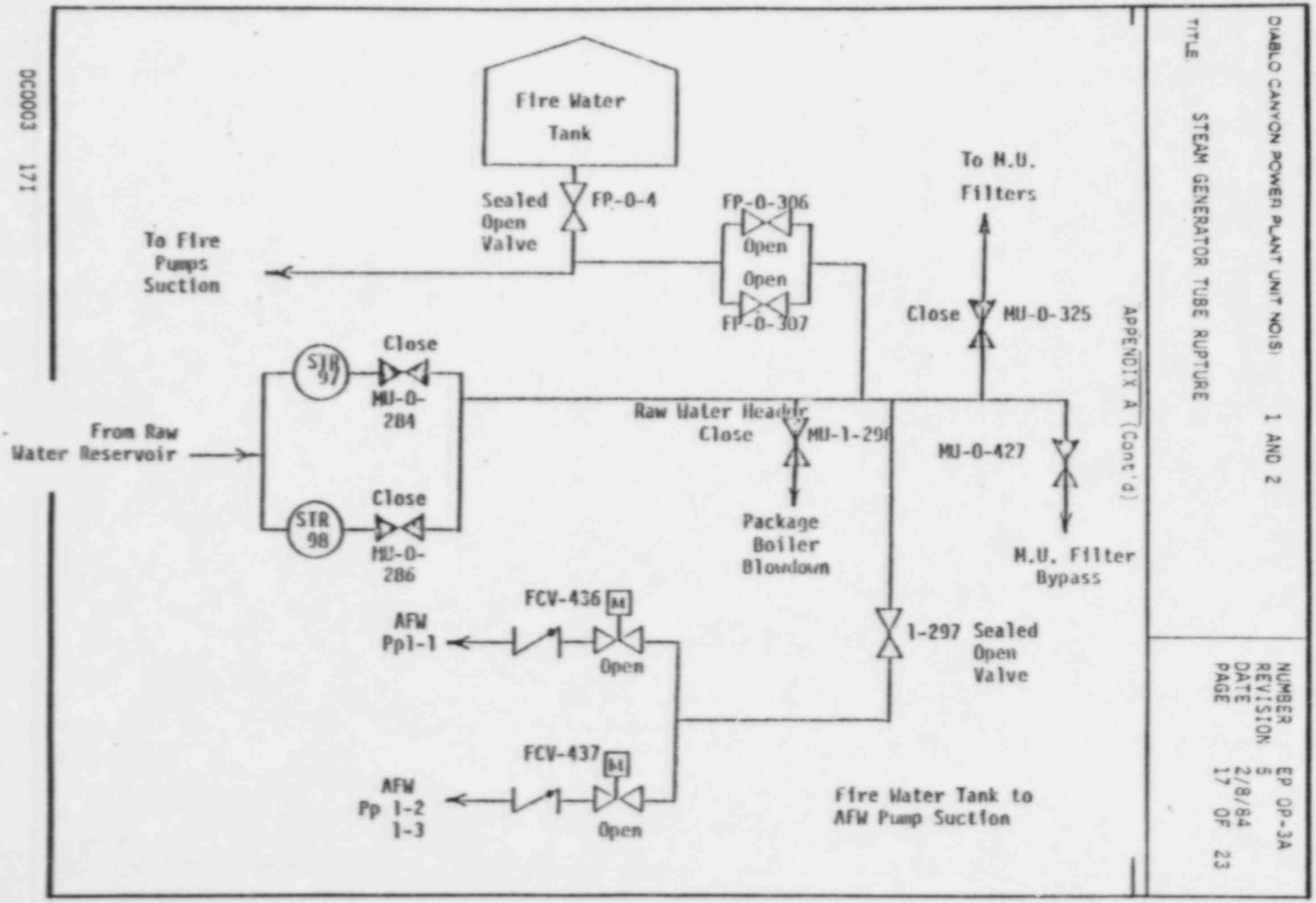
APPENDIX A

AUXILIARY FEED PUMP SUCTION SUPPLY FROM FIRE WATER TANK

The operator has 20 minutes to perform this operation after the lo lo level alarm on the condensate storage tank and before the AFW pumps lose suction. This provides sufficient time; however, the operator must not delay and must carry out the valve line up in order as written.

If the AFW pumps are being supplied from the raw water reservoir and a seismic event occurs with resultant loss of AFW suction and auxiliary feedwater flow to the steam generators, the steam generators will boil dry in about 30 minutes. Under these conditions, it is especially important to expedite this procedure and reestablish AFW flow to the steam generators prior to the reactor losing its heat sink.

ACTIONS	COMMENTS
Using the attached drawing, proceed to supply the AFW pumps suction from the fire water tank.	
1. Close or verify closed MU-0-284 and MU-0-286.	1. Closing these valves prevents losing fire water out a possible break in the reservoir supply line.
2. Close or check closed MU-1-298.	
3. Close or check closed MU-0-325.	
4. Close or check closed MU-0-427.	
5. Open FP-0-306 and FP-0-307.	
6. Notify the control room that the suction for the AFW pumps is now available from the fire water tank.	
7. From the control room open FCV-436 and 437.	
8. Proceed to the auxiliary feedwater pumps and vent the pump casings if required to remove air.	


Fire Water Tank
Sealed Open Valve
FP-0-4
To Fire Pumps Suction
FP-0-306
Open
Open
FP-0-307
To M.U. Filters
Close
MU-0-325
APPENDIX A (Cont'd)
Close
STR 97
MU-0-284
From Raw Water Reservoir
Raw Water Header
Close
MU-1-298
MU-0-427
Close
STR 98
MU-0-286
Package Boiler Blowdown
M.U. Filter Bypass
FCV-436
M1
AFW Ppl-1
Open
1-297 Sealed Open Valve
FCV-437
M1
AFW Pp 1-2 1-3
Open
Fire Water Tank to AFW Pump Suction
DIABLO CANYON POWER PLANT UNITS 1 AND 2
TITLE STEAM GENERATOR TUBE RUPTURE
NUMBER EP OP-3A
REVISION 5
DATE 2/8/84
PAGE 17 OF 23

APPENDIX B

BLACKOUT WITH SAFETY INJECTION EMERGENCY LOADING OF VITAL BUSES

1. If the vital buses lose voltage prior to resetting the safety injection signal, the vital buses 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 buses lose voltage after the safety injection signal has been reset, load or verify loaded the equipment given below onto the vital buses manually. Allow approximately 4 seconds between loading of each piece of equipment onto a given vital bus. Load or verify that the CFCU's are running in Low Speed.

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

3. Load the containment spray Pumps only if they were running prior to the blackout.

VITAL BUS G	VITAL BUS H
Cont Spray Pp 1-1	Cont Spray Pp 1-2

APPENDIX C

DETERMINATION OF ADEQUATE CORE COOLING

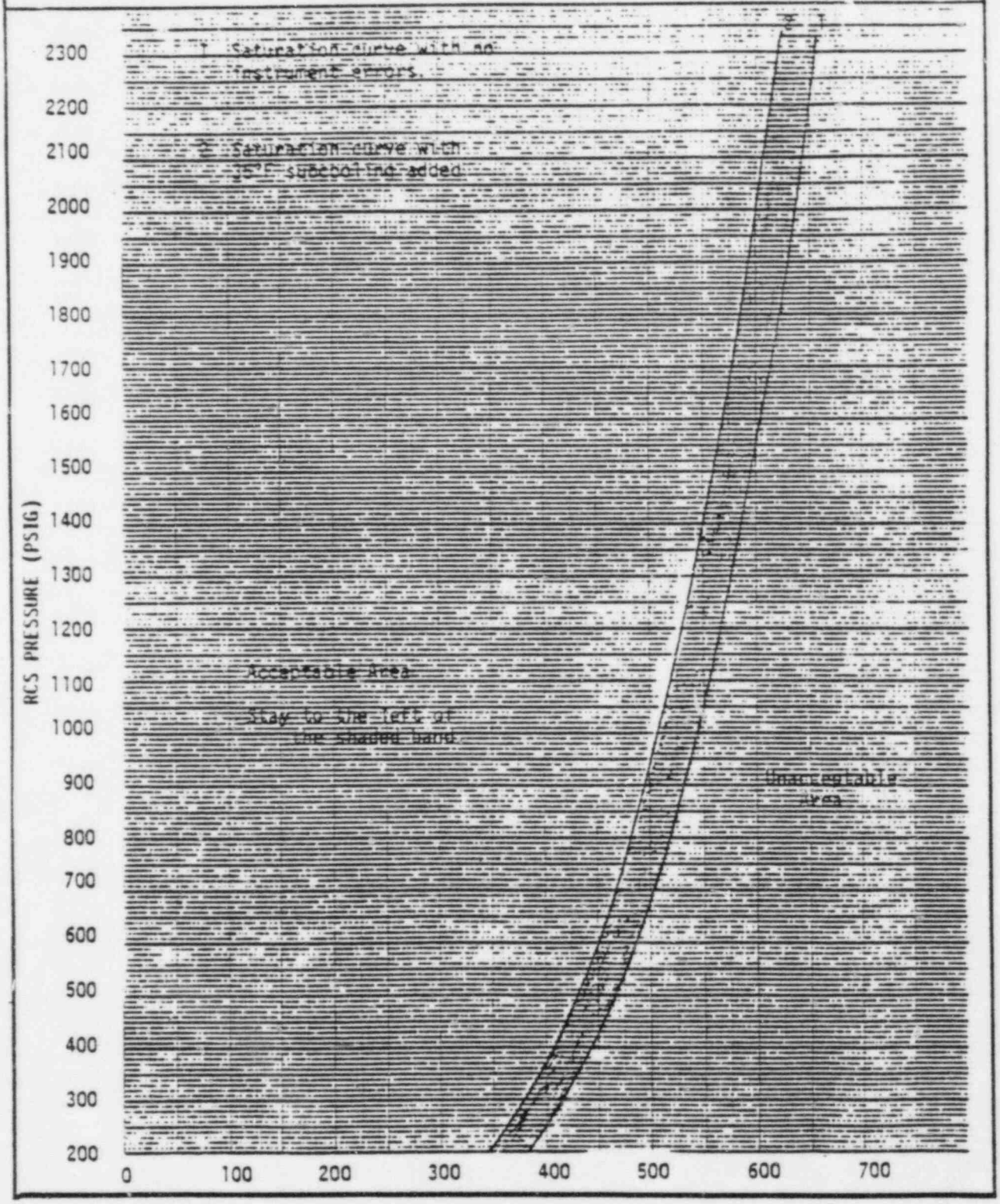
This appendix provides the guidance to determine adequate core cooling if inadequate core cooling is suspected. Further, the instructions for regaining adequate core cooling is presented.

ACTION	COMMENTS
1. Monitor the core exit thermocouple temperatures. a. If the P-250 is available go to step 2. b. If the P-250 is <u>not</u> available go to step 3.	
2. If 5 or more P-250 thermocouple readings exceed 1200 degrees F, notify the Shift Foreman that inadequate core cooling exists and go to step 5. If there are <u>not</u> 5 or more that exceed 1200 degrees F, discontinue this appendix but continue to monitor the thermocouple readings.	
3. Monitor the thermocouple readout on PAMS 3 and 4. If 5 or more thermocouple readings exceed 1200°F notify the Shift Foreman that inadequate core cooling exists and go to step 5. If there are <u>not</u> 5 or more readings that exceed 1200°F, discontinue this appendix but continue to monitor the thermocouple readings.	

ACTION	COMMENTS
4. The Shift Foreman will verify if inadequate core cooling exists using the appropriate steps above. If inadequate core cooling exists the Shift Foreman will direct operations as follows:	
a. Declare a General Emergency. Implement the instructions given in Emergency Procedure G-1 regarding on and offsite protective actions.	
b. Attempt to establish SI flow to the RCS and AFW flow to the steam generators.	
c. Continue monitoring core outlet temperature to determine the effectiveness of the remaining actions.	
d. DEPRESSURIZE THE RCS by method 1 or 2 below.	
1) Dump steam to the condenser or atmosphere if the steam generator levels are in the narrow range and AFW flow is evident.	1) THIS IS THE PREFERRED METHOD.
2) Verify the SIS or charging pumps are running and available to deliver water to the RCS THEN Open the pressurizer PORV's.	2) Opening the PORV's will provide a drop in RCS pressure sufficient to allow the SI flow required to cool the core. This method is to be used only if 1) (above) is ineffective.

ACTIONS	COMMENTS
e. If no means of depressurization are available, or if the depressurization did not result in decreasing core thermocouple temperatures, THEN START one RCP if possible. If the RCP fails after starting, replace the lost RCP with any remaining RCP.	e. Attempt to establish CCW and seal water flow to the pump; however, if CCW and/or seal water exit flow cannot be established, proceed to start a RCP. The pump must be started to move coolant through the core.

TITLE STEAM GENERATOR TUBE RUPTURE



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APPENDIX Z

EMERGENCY PROCEDURE NOTIFICATION

1. When this emergency procedure has been activated and upon direction from the Shift Foreman proceed as follows:

   a. Designate this event an Alert. Notify plant staff and response organizations required for this classification by Emergency Procedure G-2 "Establishment of On-Site Organization" and Emergency Procedure G-3 "Notification of Off-Site Organization" in accordance with Emergency Procedure G-1 "Accident Classification and Emergency Plan Activation."

   b. Designate this event a Site Area Emergency if steam generator tube leakage coincides with a loss of off-site power indicated by Appendix B of this procedure and inability to restore power to the non-vital 12KV and 4K busses (D and E). Notify plant staff and response organizations required by EP G-2 and EP G-3 in accordance with EP G-1.

   c. In the event inadequate core cooling is verified per Appendix C, reclassify this event as a General Emergency. Notify plant staff and response organizations required by EP G-2 and EP G-3 in accordance with EP G-1.

Pacific Gas and Electric Company

DEPARTMENT OF NUCLEAR PLANT OPERATIONS

DIABLO CANYON POWER PLANT UNIT NO(S) 1 AND 2

NUMBER EP OP-8
REVISION 8
DATE 2/3/84
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TITLE EMERGENCY OPERATING PROCEDURE
CONTROL ROOM INACCESSIBILITY

IMPORTANT TO SAFETY

APPROVED R. C. Thornberry 3-5-84
PLANT MANAGER DATE

SCOPE

These instructions are provided to cover those conditions prevailing when operation from the Control Room is no longer possible due to fire, smoke, heat, chlorine, high radioactivity or other occurrences which make the Control Room uninhabitable.

This procedure and changes thereto requires PSRC review.

SYMPTOMS

Possible Annunciator Alarms:

1. HIGH RADIATION (PK 11-21)
   a. Rad Mon Cont Rm Area
   b. Process Monitor Hi-Rad

2. CONTROL ROOM VENT (PK 15-06)

   a. Cont Rm Chlorine & Rad Monitor

3. FIRE/SMOKE DETECTOR (PK 10-10)

OBJECTIVES

1. Establish stable Hot Standby conditions from the Hot Shutdown Panel.

2. To provide instructions to allow the plant to be taken to Cold Shutdown condition from Hot Standby from outside the Control Room if conditions require it.

AUTOMATIC ACTIONS

1. Possible transfer to Control Room ventilation to Mode 3 (high Chlorine) or Mode 4 (Pressurization).

2. Possible start of the Emergency Diesel Generators (if offsite power is lost).

ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
IMMEDIATE ACTIONS	
1. Manually TRIP the reactor BEFORE leaving the Control Room.	1. TRIP the Reactor locally at the Reactor Trip Breakers.
a. Verify the Reactor Trip	
1) All Control Rod Bottom Lights ON (DRPI)	
2) Reactor Power NIS-DECREASING	
2. Verify tripped or manually TRIP the Turbine BEFORE leaving the Control Room.	2. TRIP the Turbine locally at the Governor Pedestal.
a. Verify all four STOP valves CLOSED on turbine EH panel.	a. Verify turbine STOP valves CLOSED by observing actual valve position at the turbine.

ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
3. Proceed to the Hot Shutdown Panel.	

SUBSEQUENT ACTIONS

4. STOP any dilution in progress.	4. Manually operate valves locally as necessary.
5. If condenser vacuum decreasing consider: a. Restarting a circulating water pump OR b. Securing Air Ejectors on the inactive half of the main condenser.	

NOTE: Certain loads (ASW and CFCU) auto start on auto transfer to startup power. Normally these loads cannot be shutdown until AUTO transfer is RESET but if the DC control power is removed from the ASW pump breaker after the breaker is opened locally it can be shutdown. The CFCU breakers must be opened locally to shut them down.

NOTE: The following list of equipment should have their Control Switches placed in the position described below BEFORE transferring to local control to insure a BUMPLESS transfer:

a. PZR HTR GRPS 12 and 14 to the NEUTRAL position.

b. The in-service LTDN Orifice Isolation valve CVCS-8149 A, B or C to the OPEN position.

c. The NOT in-service LTDN Orifice Isolation valve CVCS-8149 A, B or C to the CLOSED position.

d. Boric Acid Transfer Pumps 11 and 12 to Low Speed.

CAUTION: Transfer of Boric Acid Pumps and PZR HTRS to local control removes them from their AUTO control schemes.

ACTION/EXPECTED RESPONSE — RESPONSE NOT OBTAINED

A. TO MAINTAIN THE PLANT IN HOT STANDBY

1. The following equipment is available for transfer to local control if Manual control is desired:

   *a. Boric acid transfer pump 11
   *b. Containment fan coolers 11, 13 and 14.
   *c. 8149A&C (letdown orifice valves).
   d. HCV 142
   e. FCV 128
   f. 10% steam dump valves.
   g. LCV 110, 111, 115 and 113.
   h. CCW pump 11 and 13
   i. ASW pump 12
   *k. Pzr. Heater group 14
   l. AFW pump 13
   *m. LCV 108
   *n. LCV 109

2. The following equipment must have their control transfer cutout switch CUT IN prior to transferring to local control:

   a. Located inside the 480V Bus F AUX relay panel:
      *1. Containment fan cooler 12
      *2. 8149B (letdown orifice valve)

*These items must have their control transfer relays hand reset when transferring control back to Control Room (in addition to being in remote position on transfer switch).

ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
b. Located inside the 480V Bus G AUX relay panel: *1. FCV 95 (AFW pump 11) *2. MOV 8104 (Emerg. Borate Valve) *3. LCV 106 *4. LCV 107 *5. BA XFER pump 12 *6. CONTAINMENT fan cooler 15	
c. Located at 4 KV Bus G 1. CCW pump 12 2. ASW pump 11 3. Cent. Chg. pump 12	
d. Located at 4 KV Bus H AFW pump 12	
e. LOCATED INSIDE 480V Bus 13D cutout switch panel. *PZR heater group 12	
3. Trip the Main Feedwater Pump Turbines and ensure that they go on Turning Gear once zero speed is reached.	

*These items must have their control transfer relays hand reset when transferring control back to Control Room (in addition to being in remote position on transfer switch).

ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
4. Ensure that the Bearing Oil Pump, HP Seal Oil Backup Pump and the Bearing Lift Oil Pumps are running; and that the Main Unit Turbine goes on Turning Gear once zero speed is reached.	4. If required contact the Electrical Maintenance Department for starting loads locally.
5. Maintain the Reactor at Hot Standby condition by:	
a. Controlling narrow range Steam Generators in the normal operating band (approximately 80% actual level W.R.) with the Auxiliary Feedwater controls in AUTO.	a. Control Steam Generator NR level manually.
1) STOP turbine driven Auxiliary Feedwater Pump if not needed for level control.	

NOTE: Refer to Figure #5 for determining Actual vs Indicated Steam Generator Level (attempt to maintain and actual SG level of 78% - 85% on the Wide Range indicator.

ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
b. Verify PZR level being maintained in AUTO by a Charging Pump.	b. START a Centrifugal Charging Pump at the Hot Shutdown Panel. 1) STOP the Reciprocating Charging Pump using the control switch at the 4160V Bkr. 2) Manually adjust charging flow to control PZR level and Seal Injection using HIC-128 and HIC-142. 3) Maintain PZR level >20% to insure against a LTDN Isolation. 4) If LTDN Isolation does occur, restore LTDN per Appendix A.
c. Control RCS pressure at 2235 PSIG by use of the Backup HTRS as needed.	c. Transfer PZR HTR GRPS 12 and 13 to the Emergency Power Supply, 480V Vital Bkrs 52-1G-72, 52-1H-74.

NOTE: PZR HTR GRPS 12 and 13 on Emergency Power Supply can ONLY be controlled (when outside the Control Room) by locally closing or opening their breakers for pressure control.

d. Verify Steam Generator pressure is being maintained at approximately 1005 psig by use of the Condenser Steam Dump. This will be an automatic function unless vacuum is lost in the condenser.	d. Control Steam Generator pressure at 1005 psig by Manually operating the 10% Steam Dumps.

ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
e. Calculate the SDM for Hot and Cold XE Free conditions.	
6. Establish or verify communications between the Hot Shutdown Panel [(x1431 Unit 1, x2432 Unit 2)]	
a. Technical Support Center: [(x3199 for operator)] 1) Outside telephone exchange 2) ERFDS for additional plant monitoring capability.	
b. Dedicated Shutdown Panel [(x1355 Unit 1, x2246 Unit 2)] as necessary.	
c. 480V vital switchgear area [(x1372 Unit 1, x2497 Unit 2).]	
d. 4 KV vital switchgear [(x1747 Unit 1, x2404 x2778 x2706 Unit 2)] area.	
7. Maintain SDM using method a. or b. below (method a. is the preferred method):	
a. OPEN Emergency Borate valve, CVCS-8104 from the Hot Shutdown Panel.	a. OPEN Manual Borate valve, CVCS-8471 and shift Boric Acid Pump to fast speed.
1) Verify Boric Acid flow on FI-113B at Hot Shutdown Panel.	1) Boric Acid concentration may be determined by either:

ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
	a. Observing the Boron concentration monitor near the secondary Sample Panel 85 el (this monitor is only valid if letdown is in service) OR
	b. By sampling the RCS.
b. Boration to Hot Xe Free Condition using the BIT.	
1) CLOSE and verify locally SI-8870 A & B and SI-8911 (BAST to BIT Recirc valves) by securing air to the valve operator at Mech Pnl 74.	
2) Manually OPEN MOV 8803 A or B.	
3) Manually OPEN MOV 8801 A or B.	
4) Manually CLOSE HCV-142 to bypass maximum flow through BIT.	
NOTE: Seal injection to RCPs still required or verify CCW to RCP thermal barriers heat exchangers.	
5) Based on a BIT flow rate of 120 gpm flush the BIT for 15 min.	
6) If additional boron is required, swap charging pump suction to the RWST (open MOV 8805 A and B).	

ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
c. Keep the PZR HTRS energized during the boration.	
d. Use PZR spray to maintain RCS pressure and permote RCS/PZR Boric Acid mixing. See Appendix B for operation of Normal PZR spray valves.	d. Control Auxiliary PZR Spray by OPENING CVCS-8145 at the Dedicated Shutdown Panel.

NOTE: Table 5.7-1 of Section 5 of the Technical Specifications limits the number of unheatec auxiliary spray cycles if the spray water temperature and pressurizer water temperature differential is >320°F.

e. Verify Boron Concentration and good mixing of boron in RCS by sampling:

1) RCS Hot Leg

2) PZR liquid

3) LTDN line

NOTE: Satisfactory mixing of boron throughout the RCS should be accomplished after 3-4 RCS Loop Samples which should take about 1 hour.

8. Place Emergency Diesel Generator control selector switch on excitation cubicle to LOCAL position.

a. Verify the AUTO/TEST selector switch on local panel in the AUTO position locally in each Diesel Generator room.

ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
9. Place SU FDR breaker transfer switches to LOCAL position on cubicles.	
10. If there was a loss of OFFSITE power the Emergency Diesel Generator should start automatically and assume the vital bus loads.	
a. Verify the Emergency Diesel Generators STARTED Automatically and are supplying the 4KV vital buses.	a. START the Emergency Diesel Generators locally and energize the 4KV vital buses. (Requires operator locally at bus to parallel). If the diesel generator output breaker does not close due to a fire induced fault at the Control Room, open the switchgear door with a dedicated wrench provided for this purpose, and follow the instructions posted on the inside of the door to mechanically close the breaker.
1) 4KV Bus F, G and H voltage indication at the Hot Shutdown Panel.	
b. Shutdown unnecessary equip. not needed for current plant status.	

ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
c. Verify that equipment with controls located at Hot Shutdown Panel have restarted after transfer of power to Emergency Diesel Generators.	c. Restart equipment locally if necessary. If the 4KV pump loads cannot be started due to a fire induced fault at the Control Room, open the switchgear with a dedicated wrench provided for this purpose, and follow the instructions posted on the inside of the door to mechanically close the breakers
d. Transfer PZR HTR GRPS 12 and 13 to the Emergency Power Supply, 480V Vital Bkrs 52-1G-72, 52-1H-74. (Refer to OP A-4A).	

NOTE: PZR HTR GRPS 12 and 13 on Emergency Power Supply can ONLY be controlled (when outside the Control Room) by locally closing and opening their emergency power breakers for pressure control.

11. Maintain HOT STANDBY until Control Room access is restored and control has been returned to the Control Room.

NOTE: If Control Room access is not restored rapidly, a decision must be reached on HOW LONG to remain in HOT STANDBY and when to start cooling down to COLD SHUTDOWN. The basis for this decision is CST inventory. Refer to Figures IB-1 and 2 in volume 9 of the plant manual for guidance in making this decision. The copies of these figures at the end of the procedure are for information only.

B. TO TAKE THE PLANT FROM HOT STANDBY TO COLD SHUTDOWN FROM OUTSIDE THE CONTROL ROOM

1. Containment entry may be required to accomplish various evolutions in this procedure.

ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
a. Notify the Rad/Chem Dept. for assistance as necessary in the containment entry.	
2. Notify the I&C Dept. for assistance to execute certain steps in the procedure.	
3. Calculate the SDM for Cold XE Free Conditions if not previously calculated and borate as necessary.	
a. Refer to Section A, Step 7 of the procedure for preferred method of Boration	
4. Sample the RCS & PZR to ensure boron concentrations are equalized and adequate for cold shutdown.	
5. During the cooldown maintain RCS temperature and pressure within the operating bands of Figure 6 at the end of the procedure.	
6. Maintain Cold XE Free Boron Concentration by closely monitoring RCS Boron Concentration.	
a. Remote readout of the boron analyzer is available at the secondary sample panel area 85' El. (this monitor is only valid if letdown is in service).	

ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
7. De-energize all PZR HTRS.	
a. OPEN and RACK OUT Bkrs.	
1) Proportional Htrs (52-13D-5)	
2) Group 13 (52-13E-2)	
3) Group 12 and 14 control switch to OFF.	
b. If htr groups 12 and 13 are on Backup Supply, OPEN 52-1G-72 and 52-1H-74.	
8. Verify that all Control Rod Drive Mechanism cooling fans are in operation.	8. START all fans.
	a. If CRDM cooling fans are NOT in operation due to loss of Non-vital power GO to Appendix C to Re-energize the Non-Vital Buses.

CAUTION: Appendix C will not be carried out without the approval of the Plant Superintendent.

b. If CRDM cooling fans can not be operated continue with the procedure. This condition is significant during the Natural Circulation cooldown and shall be addressed in Appendix D.

ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
9. START RCS cooldown.	
a. With forced Reactor Coolant flow do NOT exceed a 75°F/HR cooldown rate. A 50°F/HR cooldown rate is recommended.	a. If in a Natural Circulation Mode GO TO APPENDIX D for cooldown instructions.
b. Slowly increase pressurizer level and maintain pressurizer level $\sim$ 50%.	b. If pressurizer level decreases to <22% STOP cooldown until pressurizer level is recovered.

NOTE: During cooldown, actual PZR level can be determined by using Figure 4 at the end of the procedure. Indicated level at the Dedicated Shutdown Panel (LI-406).

CAUTION: When using the steam generator 10% dumps for cooldown, maintain steam generator pressures balanced to avoid an SI on steam generator differential pressure.

c. To start the cooldown SLOWLY increase the rate of steam flow through the 10% Steam Dumps.	c. As an alternate means of cooldown (if condenser available) use handjack on 40% steam dump valve.
d. Verify Auxiliary Feedwater System is automatically maintaining Steam Generator Narrow Range level at 33%.	d. Manually throttle auxiliary feedwater flow, as necessary.
e. Monitor the Condensate Storage Tank.	
1) If CST level is low, and condensate pumps are available restore CST level by pumping down the condenser hotwell.	

ACTIONS/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
2) At 10% in the CST refer to Appendix E to shift CST suction to an alternate source.	
f. Reduce RCS pressure using PZR Spray, See Appendix B for Using Normal PZR Spray.	f. If Auxiliary PZR Spray is preferred OPEN CVCS 8145 at the Dedicated Shutdown Panel.

NOTE: If it is desired to secure normal charging to the RCS, CLOSE CVCS-8146 by installing a pneumatic jumper around SV 200 in PM 45 in Containment.

g. Maintain sub-cooling margin >35°F as determined by the following:

1) STEAM TABLES

2) PI-406 RCS Wide Range Pressure (Dedicated Shutdown Panel.)

3) TI-406 RCS Wide Range Loop 1 Hot Leg Temperature (Dedicated Shutdown Panel.)

4) TSC (ERFDS)

h. During Pressure Reduction OPEN additional orifices as necessary to maintain desired letdown flow.

ACTIONS/EXPECTED RESPONSE | RESPONSE NOT OBTAINED

CAUTION: AUTO and Manual SI is NOT available with PY 1115 and PY 1418 OPEN. Station an operator at these breakers in communication with the Hot Shutdown Panel. Deactivation is a violation of the Technical Specification and must be approved by a Senior Reactor Operator. This action requires immediate notification of the NRC.

10. When RCS temperature has been reduced below 543°F (as indicated at the Dedicated Shutdown Panel) OPEN the following instrument AC breakers to innibit HI steam line flow and Low PZR pressure SI.

    a. PY 1115 Train A Output Cab.

    b. PY 1418 Train B Output Cab.

11. Reduce primary heat load by reducing the number of RCPs in service.

    a. As a minimum RCP should remain No. 2 in service to provide Normal PZR Spray Control.

    b. TRIP the RCPs to be removed from service locally at the 12KV Bkr. cubicle.

    c. Local indication of RCP vibration and RCP seal injection flows should be observed periodically during cooldown.

ACTIONS/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
NOTE: Maintain <25°F ΔT between loops. The selectable Cold Leg or Hot Leg temperature of RCS loop 1 is directly indicated at the Dedicated Shutdown Panel. The cold leg temperature for loops 2, 3 and 4 can be determined as a function of steam generator pressure and the steam tables.	
12. When RCS pressure decreases below 1000 psig close the accumulator outlet valves (one at a time) by performing the following for each of the following breakers: MOV 8808A 52-1F-46 MOV 8808B 52-1G-07 MOV 8808C 52-1H-14 MOV 8808D 52-1G-05 a. Lay down close contactor seal-in wire on terminal #4 (inside bkr cubicle). b. Close breaker. c. Depress close contactor. d. When close contactor drops out, immediately re-open breaker. If open contactor picks up before breaker is opened, close valve fully using local handwheel. e. Re-lift and tape seal in wire on terminal #4. f. Closure of these valves can be verified locally depending on ALARA considerations.	12. If a containment entry is required the accumulator valves may be manually closed locally.

ACTIONS/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
13. Continue to cool RCS until the temperature is less than 350°F and pressure is below 390 psig. Maintain pressure by reducing spray flow and energizing PZR heaters.	
14. While preparing RHR system for service contact I&C Department to perform the following to expedite RHR operation.	
a. Install signal simulator units to PM 135 and FM 133 (located in PM 87 on 85' el. of Aux. Bldg.).	
b. Install pressure gauge upstream of PCV 135 to monitor letdown press.	
15. Place RHR system in service on Recirc.	
a. Manually CLOSE MOV 8809 A & B (RHR to CL 1, 2, 3, & 4).	
b. Cut in control transfer relays cutout switches on the RHR pump brk. cubicles.	
c. START RHR pumps locally at their switchgear cubicles.	
1) Observe recirc flow established on FIs located outside RHR pump rooms.	

NOTE: DO NOT allow RHR pumps to run longer than 30 minutes on Recirc.

ACTIONS/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
16. Sample RHR recirc line and analyze for Boron Concentration.	
17. Verify RHR Boron Conc. equal to or greater than RCS Boron Conc.	17. Recirc RHR system on the RWST. a. OPEN RHR-8741 b. Resample RHR recirc and reanalyze for Boron Conc. c. When RHR Boron Conc. is equal to or greater than RCS Boron Conc. CLOSE RHR-8741.
18. Shutdown BOTH RHR pumps.	
19. CLOSE MOV-8980 using handwheel.	
20. Close the breakers for MOV-8701 (52-1G-25) & 8702 (52-1H-19).	
21. OPEN MOV-8702 and 8701. a. Open by momentarily pushing the open contactor, located inside the breaker panel.	

NOTE: The valve is full open when the open contactor drops out. This should take about 100 seconds.

ACTIONS/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
b. OPEN the valve breaker when the valve is full open.	
c. Observe local pump suction pressure indication (which should increase to RCS pressure).	
22. OPEN FCV-364 and FCV-365, RHR HX CCW outlet vlvs.	
a. Open by closing air supply valves at air manifold P-85G-01. (FCVs are ATC/FO).	
b. Observe CCW flow thru HX's local FI's (100' El Aux. Bldg.).	
23. Start #1 RHR pump on recirc.	
a. Monitor recir[illegible]w locally.	
24. Slowly open MOV [illegible] an increase in [illegible] observed. Th[illegible] the RHR syst[illegible]	
a. Observe [illegible] indicator [illegible]CS [illegible] of RHR HX [illegible]ocated [illegible] RHR HX room).	

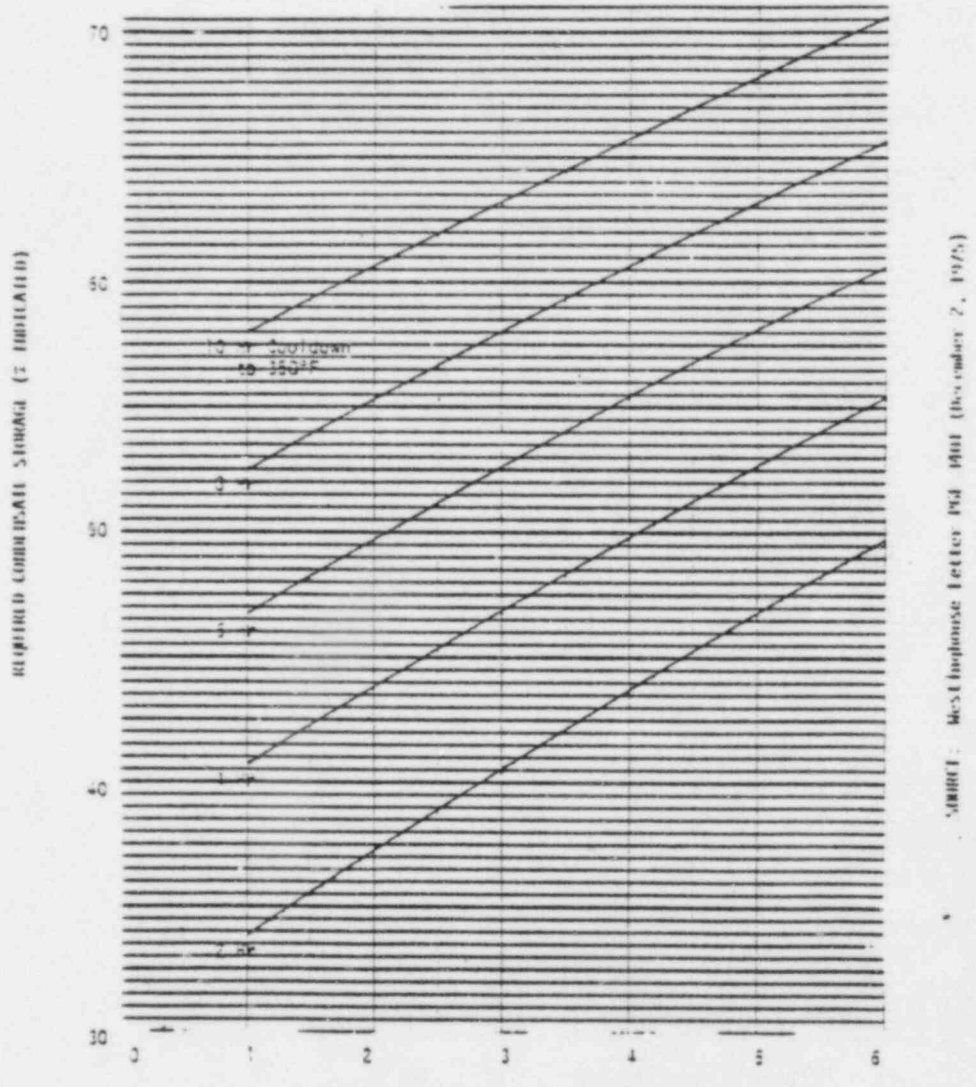
ACTIONS/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
25. Start #2 RHR pump as per steps 23 and 24 above (except using MOV-8809B).	
26. Slowly open MOV-8809A & B to commence further cooldown of RCS.	
27. Open RHR Hx Manual Crosstie Valves RHR 8734A & B and establish RHR to letdown by fully opening HCV 133.	
28. Regulate letdown flow by controlling PCV 135.	
29. When condenser vacuum can no longer be maintained, proceed as follows:	
a. Condenser vacuum can be observed at the main unit turbine pedestal on PI 256, or on local indicator in PM 177 on 104' El. (near PY 17).	
b. Terminate condenser steam dump (if in use).	
c. Break condenser vacuum.	
d. Shutdown the air ejectors and secure shaft seal system on the main feed pumps and main unit turbine.	

ACTIONS/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
30. Open DC Control power to SI pumps at breakers 52-HH-15 and 52-HF-15 and manually shut valve MOV-8835. (SI to C.L. 1, 2, 3 and 4).	
31. Reduce letdown flow less than charging flow to begin increasing PZR level to approx. 90%.	
32. When RCS cold leg temperature has been reduced to 323°F perform the following:	
a. Verify only one charging pump operable.	
b. Verify both SI pumps inoperable.	
c. Verify MOVS 8701 and 8702 are OPEN.	
d. Rack out the valves and inoperable pump.	
e. Notify the NRC that pressurizer PORV LOW PRESSURE protection is not available until access to the control room is re-established.	
33. When RCS temp. is reduced below 200°F, fill the steam generators all the way and place in wet layup.	

ACTIONS/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
34. Ensure shutdown margin remains greater than 1.0% Δ K/K.	
35. Fill the PZR.	
NOTE: While filling and cooling down the PZR with auxiliary spray, ensure the PZR cooldown rate does not exceed 200°F/HR.	
36. Shutdown remaining RCP's when the RCS temp. is below 160°F.	
37. Continue to cooldown the PZR until the PZR temp. is below 150°F.	
CAUTION: Depressurizing the RCS before the entire RCS is below 200°F may result in void formation in the system.	
38. Continue Cooldown of Inactive Portion of RCS:	
a. Upper head region - ALL CRDM FANS RUNNING.	a. IF fans NOT running, THEN DO NOT depressurize RCS until upper head cools to less than 200°F (approximately 27 hours after RHR system is placed in service).
b. Steam Generator U-Tubes - CONTINUE DUMPING STEAM from all steam generators until it is VERIFIED that they have stopped steaming.	b. DO NOT depressurize RCS until steam generators have stopped steaming.

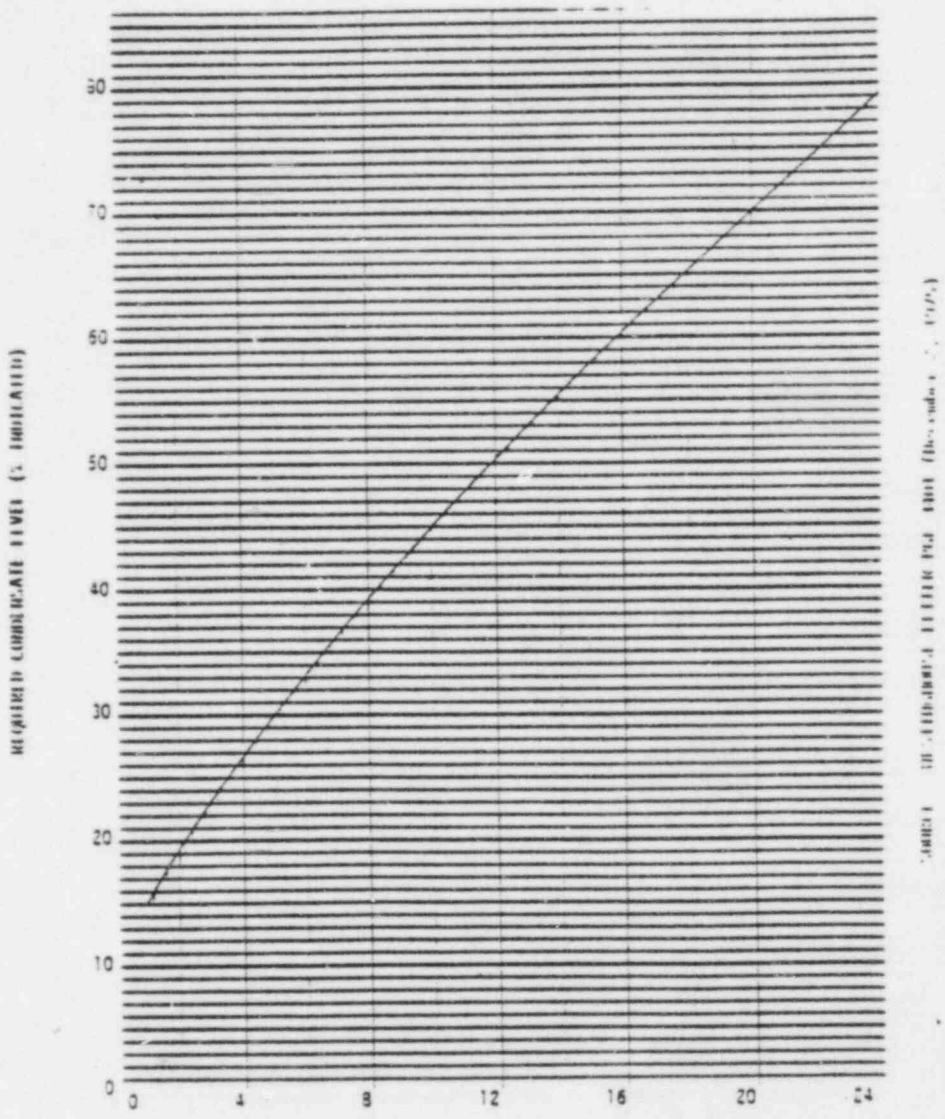
ACTIONS/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
39. Reduce the system pressure to approx. 50 psi by reducing charging flow and increasing RHR letdown flow.	
40. Shutdown the charging pump.	
41. Stop any spray flow in progress and close the RHR letdown valve HCV 133.	
42. Leave the RHR system in service recirculating from hot leg 4 to the cold legs.	
43. After approximately 72 hours of cooling, one RHR train and related auxiliary systems may be shut down. The remaining RHR train must remain in service.	

FIGURE IF-1
REQUIRED CONDENSATE STORAGE CAPACITY AS A FUNCTION
OF STANDBY TIME AND COOLDOWN TIME (RATED Mw_t=3423)



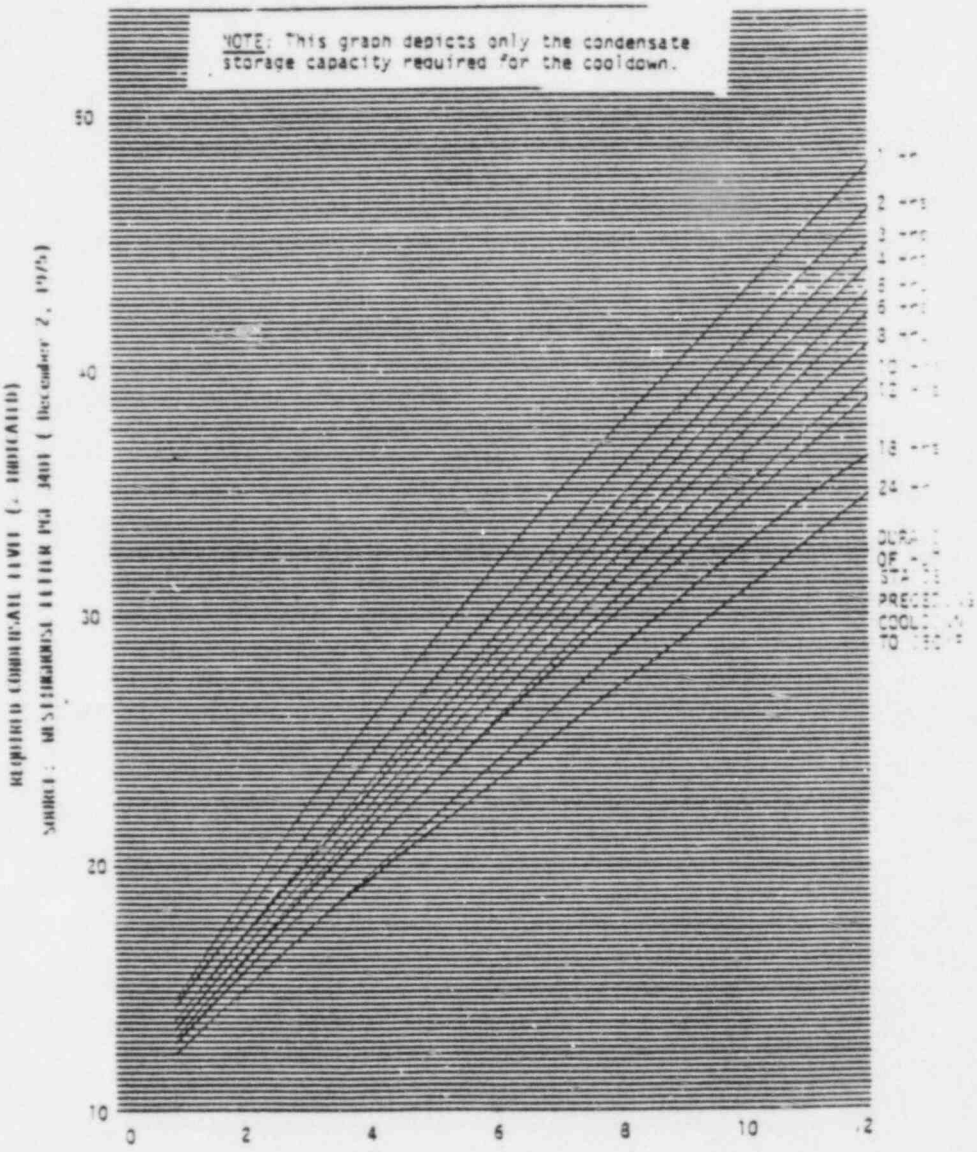
TIME AT HOT STANDBY (HOURS) FIGURE IB-1

REQUIRED CONDENSATE LEVEL TO MAINTAIN
A GIVEN HOT STANDBY TIME (RATED MW_t=3423)

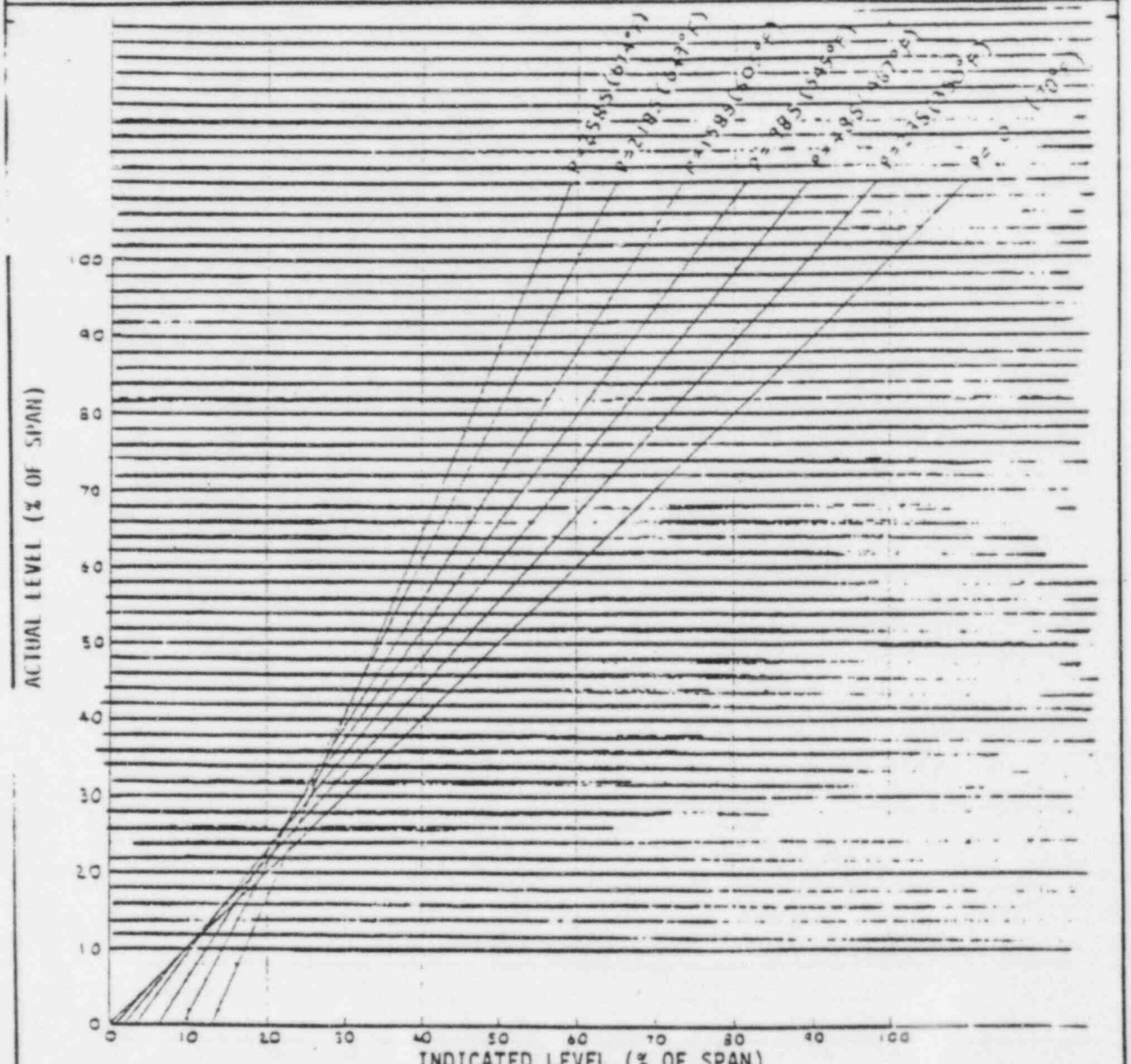


HOT STANDBY TIME (HOURS) FIGURE IB-2

REQUIRED LEVEL OF CONDENSATE TO COOLDOWN TO 350F



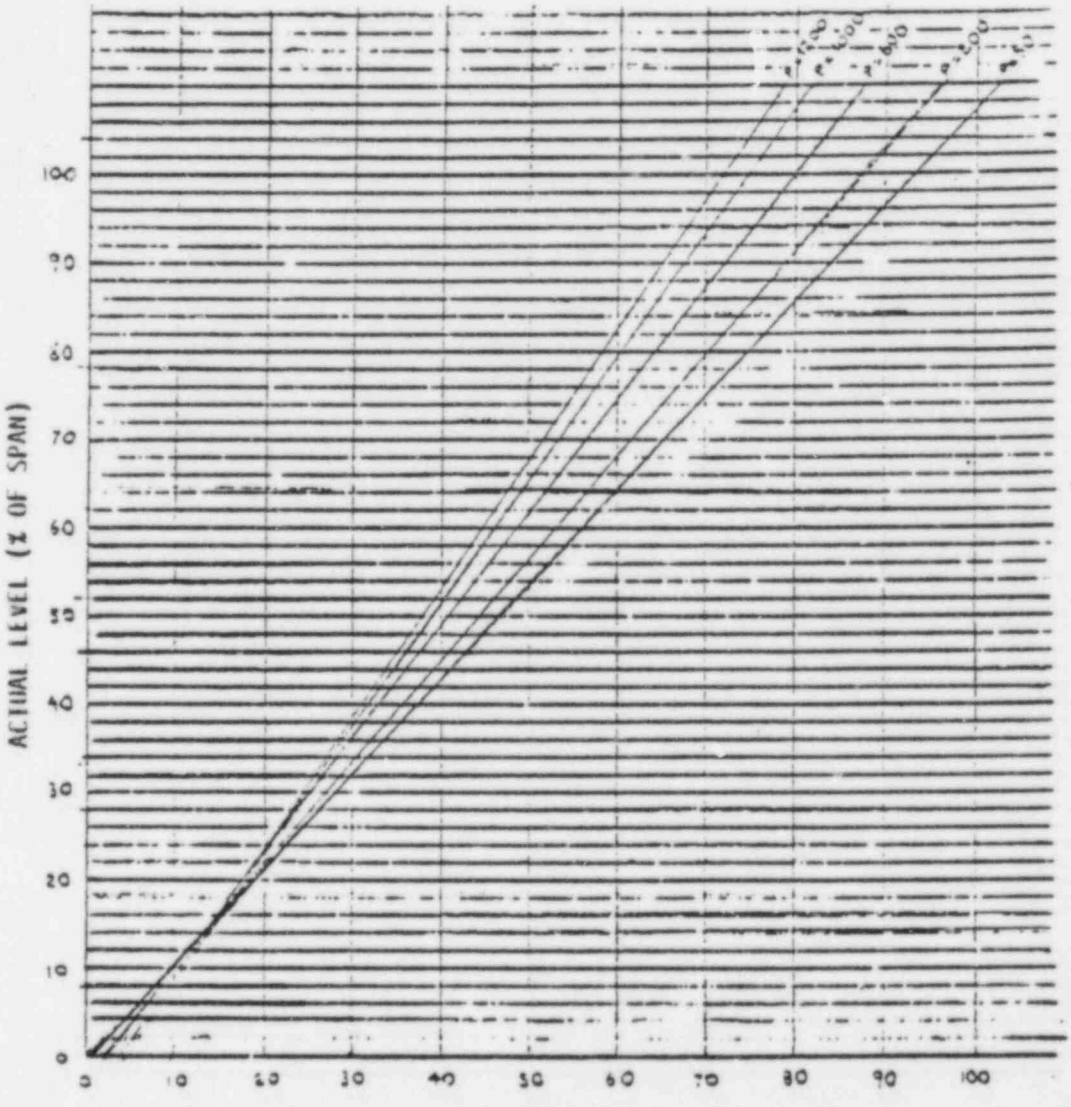
DURATION OF COOLDOWN TO 350°F (HOURS) FIGURE IB-3



LI-406

PRESSURIZER LEVEL CORRECTION CURVES FOR PRESSURIZER PRESSURES (PSIG)
(CONTAINMENT TEMPERATURE=100°F EXCEPT AT : 0 PSIG, 70°F)

FIGURE 4



STEAM GENERATOR LEVEL (WIDE RANGE) CORRECTION CURVES
FOR STEAM GENERATOR PRESSURE (PSIG)
(CONTAINMENT TEMPERATURE-100°F)
FIGURE 5

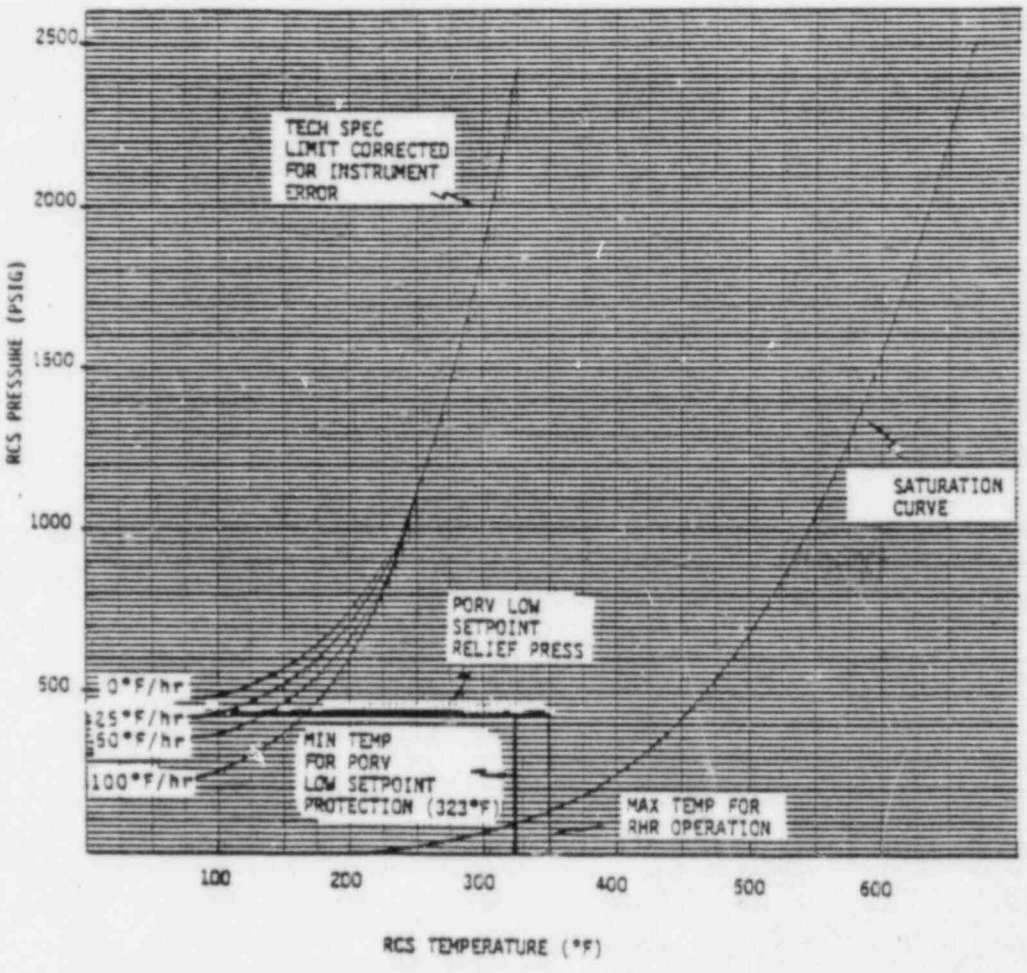

2500
2000
1500
1000
500
RCS PRESSURE (PSIG)
TECH SPEC
LIMIT CORRECTED
FOR INSTRUMENT
ERROR
SATURATION
CURVE
PORV LOW
SETPOINT
RELIEF PRESS
0°F/hr
25°F/hr
50°F/hr
100°F/hr
MIN TEMP
FOR PORV
LOW SETPOINT
PROTECTION (323°F)
MAX TEMP FOR
RHR OPERATION
100
200
300
400
500
600
RCS TEMPERATURE (°F)

FIGURE 6

APPENDIX A

LETDOWN ISOLATION

Should letdown isolation occur due to low PZR level, proceed as follows:

1. Place control switch(s) for LTDN orifice valve(s) in CLOSED position.
2. Re-establish PZR level via charging flow control.
3. At nuclear auxiliary relay rack "B", depress and hold in energized position relays 33aoX / LCV 459 and 33aoX / LCV 460 for approx. 10 seconds.

   NOTE: Relays 33aoX / LCV 459 and 33aoX / LCV 460 are located in the top right hand corner of RNARB (cable spreading rm. 128' el.) and are appropriately labeled.

4. Open letdown orifice isolation valve(s) as required from the hot shutdown panel.
5. Check letdown flow re-established.
6. Restore Group I Pressurizer Heaters by reclosing 52-13D-05 locally.

APPENDIX B

PRESSURIZER SPRAY ACTUATION

1. This method uses a normal pressurizer spray valve and requires a RCP associated with its respective spray valve to be in operation.

   a. To use PCV 455A (Loop 1):

      1) Contact the I&C Dept. and have them disconnect the output of PC 455G in Hagan Rack 19 at TB H leads #9 and #10, and install a 4-20 ma current source (Transmation model 1040 or equivalent) to the disconnected leads. This will allow for modulation of PCV 455A.

      2) Establish phone communications between the Hot Shutdown Panel and Hagan rack area.

      3) Increasing current to the valve will cause increased opening of the valve.

      4) When the valve is closed and operation of the valve is not required, turn off transmation unit.

   b. To use PCV 455B (Loop 2)

      1) Contact the I&C Dept. and have them disconnect the output of PC 455F in Hagan Rack 19 at TB H leads #5 and #6, and install a 4-20 ma current source (Trasmation model 1040 or equiv.) to the disconnected leads. This will allow for modulation of PCV 455B.

      2) Establish phone communications between the Hot Shutdown Panel and Hagan rack area.

      3) Increasing current to the valve will cause increased opening of the valve.

      4) When the valve is closed and operation of the valve is not required, turn off transmation unit.

APPENDIX C
ENERGIZING NON-VITAL 480V BUSSES WITH DIESEL GENERATOR

DISCUSSION

This procedure is written using the 12 diesel generator as the source of power for the non vital bus. This does not preclude the use of 11 or 13 diesel generator in which case the buses and breakers unique to the 11 or 13 diesel generator would be substituted for the respective diesel generator buses and breakers.

PROCEDURE

1. At 4KV Bus G Switchgear Room, remove the non-essential loads from 4KV Bus G.

2. At 4KV Bus G Switchgear Room:

   a. Open S.U. power to vital buses F. G, H 52-HG-15.

   b. Verify cut in all 1-2 D.G. Protection service.

3. At the 12KV Switchgear room perform the following:

   a. Open or check open 52-VU-14, S.U. Transformer 1-2 Feeder ACB. Then open the DC control power.

1. Leave the 480V M.C.C. connected, transfer to redundant pumps on 4KV busses F or H if possible.

b. For the following ACB's on 4KV Bus E OPEN or check OPEN the ACB THEN OPEN the DC Control power.

1) 52-HE-2 AUX. Feeder to 4KV Bus E.

2) 52-HE-3 S.U. Feeder to 4KV Bus E.

3) 52-HE-6 No. 2 Heater Drip Pump ACB.

4) 52-HE-11, Condensate and Booster Pump 12 ACB.

5) 52-HE-9, Condensate and Booster Pump 13 ACB.

6) 52-HE-12, 480V Bus 15E Feeder ACB.

7) 52-HE-4, 480V Bus 13E Feeder ACB.

8) 52-HE-5, 480V Bus 12E Feeder ACB.

9) 52-HE-8, 480V Bus 11E Feeder ACB.

10) 52-HE-7, Station Service Feeder to 500 KV Swyd.

c. For the following ACB's on 4KV Bus D OPEN or check OPEN the ACB THEN OPEN the DC Control power.

1) 52-HD-14 S.U. Feeder to 4KV Bus D

2) 52-HD-15, Aux. Feeder to 4KV Bus D

3) 52-HD-7, Condenser Vacuum Pump ACB

4) 52-HD-9, Condensate and Booster Pump 1-1 ACB

5) 52-HD-11, Station Service Feeder to 230KV Swyd.

6) 52-HD-8, 480V Bus 14D Feeder ACB

4. At 480V Bus 11D, open all 480V breakers except 52-11D-02. Verify tie breaker 52-11DE is open.

5. At 480V bus 15D, open all 480V breakers except 52-15D-02, verify tie breaker 52-15DE is open.

6. At 480V bus 12D, open all breakers except 52-12D-02, 52-12DM and 52-12DJ. Verify tie breaker 52-12DE is open.

7. At 480V bus 12J, open all 480V breakers.

8. At 480V bus 13D, open all 480V breakers except 52-13D-02. Verify tie breaker 52-13DE is open. Cut out DC control to pressurizer heater ACB's 52-13D-05, 52-13D-06.

9. At 480V Bus 12M, open all 480V breakers except 52-12MD. Verify tie breaker 52-12MN is open.

10. At 4KV Bus G, manually close 52-HG-14, start-up feeder to Bus G.

11. At 4KV Bus D, manually close 52-HD-14, start-up feeder to Bus D.

12. At 4KV Bus E, manually close 52-HE-3, start-up feeder to Bus E.

13. Locally close 52-HG-15 to energize 4KV Bus D from 1-2 diesel generator. Closely watch diesel generator during this operation for any sign of instability.

NOTE: There will be a short load surge on the Diesel Generator as the startup transformer 12 is energized.

CAUTION: If the diesel generator appears unstable during this step or at any time beyond this point in the procedure, immediately open 52-HG-15 to separate the diesel from the nonvital system.

14. Locally at the switchgear energize the 480V buses by the following actions:

    a. Close 52-HD-10 to energize 480V Bus 11D.

    b. Close 52-HD-12 to energize 480V Busses 12D, 12M, 12J.

    c. Close 52-HD-13 to energize 480V Bus 13D.

    d. Close 52-HD-6 to energize 480V Bus 15D.

15. Make available, rack in the breakers and start the following equipment, if necessary.

    a. Plant air compressors.

    b. Control rod drive shroud coolers.

    c. Service cooling water pump.

    d. Turbine-generator lift pump, turning gear drive. Place turbine on gear if possible.

16. If the 500KV and 230KV Swyd compressed air systems need returned to service perform the following:

    a. Locally at 4KV Bus E manually close 52-HE-7.

    b. Dispatch an operator to the 500KV Switchyard to verify closed or CLOSE the local 4KV bus feeder breaker in the 500KV switchyard.

    c. Operator should also verify 480V bus is energized and 500KV switchgear compressed air system is available.

    d. Operator should verify 230KV yard 4KV bus is energized via the emergency tie cable and its compressed air system is available.

17. Additional equipment deemed necessary may be started at the discretion of the Shift Foreman. During any new operations close attention should be paid to diesel generator conditions.

APPENDIX D

TO TAKE THE PLANT FROM HOT STANDBY TO COLD SHUTDOWN FROM OUTSIDE THE CONTROL ROOM USING NATURAL CIRCULATION.

PREREQUISITE

This Appendix procedure assumes all conditions up to and including Section B, Step 8 of the Operator Actions of EP OP-8 Control Room Inaccesibility have been met.

ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
1. START RCS Cooldown.	
a. Maintain cooldown rate less than 25°F/HR.	
b. Slowly increase pressurizer level and maintain pressurizer level ~50%.	b. If pressurizer level decreases to <22% STOP cooldown until

NOTE: During cooldown, actual PZR level can be determined by using Figure 4 at the end of the procedure and indicated level at the Dedicated Shutdown Panel (LI-406).

CAUTION: When using the steam generator 10% dumps for cooldown, maintain steam generator pressures balanced to avoid an SI on steam generator differential pressure.

c. To start the cooldown SLOWLY increase the rate of steam flow through the 10% Steam Dumps.	
d. Verify Auxiliary Feedwater System is automatically maintaining Steam Generator Narrow Range level at 33%.	

ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
e. Monitor the Condesate Storage Tank.	
1) If CST level is low, and condensate pumps are available restore CST level by pumping down the condenser hotwell.	
2) At 10% in the CST refer to Appendix E of this procedure to shift CST suction to an alternate source.	
2. Check RCS Hot Leg Temperature:	
a. RCS Hot Leg temperature - LESS THAN 550°F (as indicated at the Dedicated Shutdown Panel).	a. DO NOT proceed until RCS Hot Leg temperature is less than 550°F.

CAUTION: AUTO and MANUAL SI is NOT available with PY 1115 and PY 1418 OPEN. Station an operator at these breakers in communication with the Hot Shutdown Panel. Deactivation is a violation of the Technical Specification and must be approved by a Senior Reactor Operator. This action requires immediate notification of the NRC.

3. When RCS temperature has been reduced below 543°F (as indicated at the Dedicated Shutdown Panel) OPEN the following instrument AC breakers to inhibit HI steam line flow and Low Pzr pressure SI.

ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
a. PY 1115 Train A Output Cab.	
b. PY 1418 Train B Output Cab.	
4. Commence depressurizing the RCS to approximately 1865 psig.	
a. Depressurize RCS using pressurizer auxiliary spray, CVCS-8145 (Dedicated Shutdown Panel).	

NOTE: Table 5.7-1 of Section 5 of the Technical Specifications limits the number of unheated auxiliary spray cycles if the spray water temperature and pressurizer water temperature differential is >320°F.

5. Maintain the following RCS conditions:

a. RCS pressure - about 1865 psig.

b. Pressurizer level - about 50%.

c. RCS cooldown rate - Less than 25°F/hr.

d. Less than 25°F ΔT between loops as determined by TI-406 and Steam Generator pressure for selected to Loop 1 Cold Leg and loops 2, 3 and 4.

ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
6. Verify RCS cooldown:	
a. Wide Range Loop 1 Hot Leg RTD temperature-trending down (TI-406 at Dedicated Shutdown Panel).	
b. RCS subcooling - increasing (minimum of 50°F) as determined by:	
1) STEAM TABLES	
2) PI-406 RCS Wide Range Pressure (Dedicated Shutdown Panel).	
3) TI-406 (selected to Loop 1 Hot Leg).	
7. Depressurize RCS as follows:	
a. If all CRDM fans are running maintain 50°F subcooling.	a. If all CRDM cooling fans are NOT available for operation:
	1) Maintain 200°F subcooling until RCS pressure is 1200 psig.
	2) Maintain RCS pressure at 1865 psig until RCS temperature is cooled down to 430°F.
b. Depressurize using auxiliary spray, CVCS-8145 (Dedicated Shutdown Panel).	

ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
8. Continued RCS cooldown AND depressurization:	
a. Maintain cooldown rate - LESS THAN 25°F/hr.	
b. Maintain subcooling requirements of step 5.	b. If the required subcooling cannot be maintained, STOP the depressurization and re-establish the required subcooling.
c. Maintain the reactor coolant system pressure-temperature relationship within the boundaries of the Plant Cooldown Curve. Figure 6 at the end of the main procedure.	
9. Verify NO voiding in Reactor Vessel Head Area.	9. If voiding is suspected due to large variations in pressurizer level THEN repressurize the RCS to collapse the void in the head area.
a. Pressurizer level RESPONSE NORMAL.	
10. If all CRDM fans are NOT in operation:	
a. Maintain RCS at 1200 psig while continuing to cooldown to 350°F.	

ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
b. In Technical Support Center use ERFDS channel, observe TT-25 thermocouple in Reactor Vessel Head.	b. Maintain 1200 psig for approximately 8 hours to allow the upperhead to cool off to a temperature less than saturation for 400 psig (445°F) before continuing with the depressurization.
1) Do not depressurize to <1200 psig until upperhead area is less than saturation temperature for 400 psig (445°F).	
11. Check if SI system should be disabled:	
a. RCS pressure - Less than 1000 psig but greater than 700 psig.	a. DO NOT disable any SI system equipment if greater than 1000 psig.
b. Average RCS temperature - LESS 350°F but RCS cold leg temperature greater than 323°F.	b. DO NOT disable any SI system equipment if Average RCS temperature is greater than 350°F.
c. Isolate SI accumulators.	c. If NO ALARA considerations required and containment entry is necessary, SI accumulators may be isolated manually.

ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
1) Close each isolation valve (one at a time) by performing the following for each of the following breakers: MOV 8808A 52-1F-46 MOV 8808B 52-1G-07 MOV 8808C 52-1H-14 MOV 8808D 52-1G-05 a) Lay down close contactor seal-in wire on terminal #4 (inside bkr cubicle). b) Close breaker. c) Depress close contactor. d) When close contactor drops out, immediately re-open breaker. If open contactor picks up before breaker is opened, close valve fully using local handwheel. e) Re-lift and tape seal in wire on terminal #4.	

ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
f) Closure of these valves can be verified locally depending on ALARA considerations.	
2) Rack out each isolation valve breaker.	
d. Disable the safety injection pumps by opening the DC control power to the pump breaker.	
e. Disable the non-operating centrifugal charging pump by opening the DC control power to the pump breaker.	
12. Open additional letdown orifices if necessary to maintain normal letdown flow.	
13. Maintain adequate RCP Seal Injection Flow.	
a. Adjust HCV-142, as necessary.	
14. When system pressure has been reduced to approximately 400 psig, hold it constant at this value by reducing auxiliary spray flow and energizing the PZR heaters as necessary.	

ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
15. When RCS hot leg temperature has been reduced to less than 350°F and pressure is between 380-420 psig, place the RHR system in service recirculating from hot leg 4 to the cold legs as follows:	
a. While preparing RHR System for service contact I&C Department to perform the following:	
1) Install signal simulator units to PM 135 and FM 133 (located in PM 87 on 85' el. of Aux. Bldg.).	
2) Install pressure gauge upstream of PCV 135 to monitor letdown press.	
b. Manually CLOSE MOV 8809A & B (RHR to CL 1,2,3&4).	
c. CUT IN control transfer relays cutout switches on the RHR pump bkr. cubicles.	
d. START RHR pumps locally at their switchgear cubicles.	
1) Observe recirc flow established on FI's located outside RHR pump rooms.	

NOTE: DO NOT allow RHR pumps to run longer than 30 minutes on Recirc.

ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
e. Sample RHR recirc line and analyze for Boron Conc.	
f. Verify RHR Boron Conc. equal to or greater than RCS Boron Conc.	f. Recirc RHR system on the RWST. 1) OPEN RHR-8741 2) Resample RHR recirc and reanalyze for Boron Conc. 3) When RHR Boron Conc. is equal to or greater than RCS Boron Conc. CLOSE RHR-8741.
g. Shutdown BOTH RHR pumps. CLOSE MOV-8980 using handwheel.	
h. Close the breakers for MOV-8701 (52-1G-25) & 8702 (52-1H-19).	
i. OPEN MOV-8702 and 8701. 1) Open by momentarily pushing the open contactor, located inside the breaker panel.	

ACTION/EXPECTED RESPONSE — RESPONSE NOT OBTAINED

NOTE: The valve is full open when the open contactor drops out. This should take about 100 seconds.

2) OPEN the valve breaker when the valve is full open.

3) Rack out motor breakers for MOV 8701 and 8702.

4) Observe local pump suction pressure indication (which should increase to RCS pressure).

j. OPEN FCV-364 and FCV-365, RHR Hx CCW outlet vlvs.

1) Open by closing air supply valves at air manifold P-85G-01. (FCV's are ATC/FO)

2) Observe CCW flow thru HX's local FI's (100' El Aux. Bldg.)

k. Start #1 RHR pump on recirc.

1) Monitor recirc. flow locally.

l. Slowly open MOV-8809A until an increase in flow is observed. This is to allow the RHR system to heat up.

ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
1) Observe local temperature indicator on RCS outlet of RHR HX (located in RHR HX room).	
m. Start #2 RHR pump as per steps k and l above (except using MOV-8809B).	
n. Slowly open MOV-8809A & B to commence further cooldown of RCS.	
16. Open RHR HX Manual crosstie valves RHR-8734A & B and establish RHR to letdown by fully opening HCV 133.	
17. Regulate letdown flow by controlling PCV 135.	
18. When RCS cold leg temperature reduces to <323°F notify the NRC that Pressurizer PORV Low Pressure Protection will not be available, until the control room accessbility is re-established.	
19. Reduce letdown flow less than charging flow to begin increasing PZR level to approx. 90%.	
20. When RCS temp. is reduced below 200°F, fill the steam generators all the way and place in wet layup.	

ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
21. Ensure shutdown margin remains greater than 1.0% Δ K/K.	
22. Fill the PZR.	
NOTE: While filling and cooling down the PZR with auxiliary spray, ensure the PZR cooldown rate does not exceed 200°F/HR.	
23. Return to Section B Step 37 of Main Procedure.	

APPENDIX E

AUXILIARY FEED PUMP SUCTION SUPPLY FROM FIRE WATER TANK

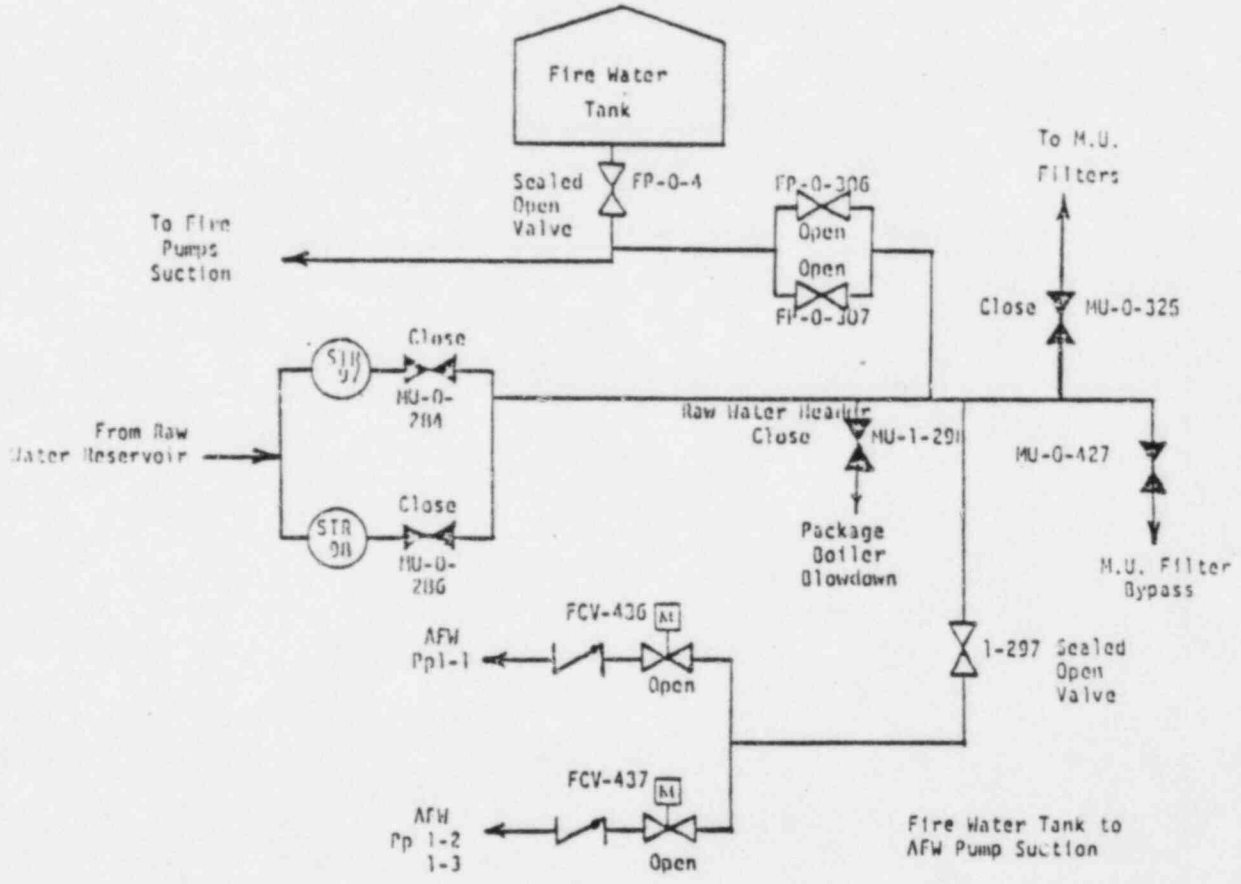
The operator has 20 minutes to perform this operation after the lo lo level alarm on the condensate storage tank and before the AFW pumps lose suction. This provides sufficient time; however, the operator must not delay and must carry out the valve line up in order as written.

If the AFW pumps are being supplied from the raw water reservoir and a seismic event occurs with resultant loss of AFW suction and auxiliary feedwater flow to the steam generators, the steam generators will boil dry in about 30 minutes. Under these conditions, it is especially important to expedite this procedure and re-establish AFW flow to the steam generators prior to the reactor losing its heat sink.

ACTIONS	COMMENTS
Using the attached drawing, proceed to supply the AFW pumps suction from the fire water tank.	
1. Close or verify closed MU-0-284 and MU-0-286.	1. Closing these valves prevents losing fire water out a possible break in the reservoir supply line.
2. Close or check closed MU-1-298.	
3. Close or check closed MU-0-325.	
4. Close or check closed MU-0-427.	
5. Open FP-0-306 and FP-0-307.	
6. Notify the control room that the suction for the AFW pumps is now available from the fire water tank.	
7. Locally open FCV-436 and 437.	

ACTIONS	COMMENTS
8. Proceed to the auxiliary feedwater pumps and vent the pump casings if required to remove air.	

APPENDIX E


Fire Water Tank
Sealed Open Valve
FP-0-4
To Fire Pumps Suction
FP-0-306
Open
Open
FP-0-307
To M.U. Filters
Close
MU-0-325
Close
MU-0-
288
From Raw Water Reservoir
Raw Water Header
Close
MU-1-291
MU-0-427
Package Boiler Blowdown
M.U. Filter Bypass
Close
MU-0-
286
FCV-436
AFW Pp1-1
Open
1-297 Sealed Open Valve
FCV-437
AFW Pp 1-2 1-3
Open
Fire Water Tank to AFW Pump Suction

APPENDIX Z

NOTIFICATION INSTRUCTIONS

1. When this procedure has been activated and upon direction from the Shift Foreman, proceed as follows:

   a. Designate this event an Alert. Notify plant staff and response organizations required for this classification by implementing Emergency Procedure G-2 "Establishment of the Onsite Emergency Organization" and G-3 Emergency Procedure "Notification of Offsite Organizations" in accordance with Emergency Procedure G-1 "Accident Classification and Emergency Plan Activation."

   b. If, after evacuation of the Control Room, control of shutdown systems cannot be established within 15 minutes, redesignate this event as a Site Area Emergency. Notify plant staff and response organizations required by EP G-2 and EP G-3 in accordance with EP G-1.

      NOTE: Notification requirement must be carried out either at the Technical Support Center or Administration Building communication equipment.

PG&E **Pacific Gas and Electric Company**

DEPARTMENT OF NUCLEAR PLANT OPERATIONS

DIABLO CANYON POWER PLANT UNIT NO(S) 1 AND 2

TITLE: EMERGENCY OPERATING PROCEDURE
MALFUNCTION OF REACTOR PRESSURE CONTROL SYSTEM

NUMBER	EP OP-13
REVISION	3
DATE	2/1/84
PAGE	1 OF 9

IMPORTANT TO SAFETY

APPROVED: R C Thornberg 2-27-84
PLANT MANAGER DATE

SCOPE

The purpose of this procedure is to provide instructions to be followed in the event of a malfunction of the reactor pressure control system. For simplicity, this procedure is subdivided into four parts as follows:

PART A: Pressurizer Pressure Channel fails high.

PART B: Stuck open spray valve.

PART C: Pressurizer heater malfunction.

PART D: Stuck open or leaking power operated relief valve.

This procedure and changes thereto requires PSRC review.

PART A: PRESSURIZER CHANNEL FAILS HIGH

SYMPTOMS

1. Failed channel will indicate high pressure. Give the high pressurizer pressure alarm (PK05-16) and trip the associated reactor trip bystable (PK05-6).

2. Other pressure channels show actual pressure is decreasing and gives low pressure alarm (PK05-17).

3. PRT pressure, level and temperature indicators on VB-2 show abnormally high indication.

4. "Pressurizer PORV Temperature High" annunciator alarms (PK05-23).

AUTOMATIC ACTIONS

1. If the controlling channel fails high.

   a. Both spray valves open.

   b. All pressurizer heaters de-energized.

   c. PCV-455C opens (closes again when pressure decreases to 2185 psig).

2. If the selected protection channel fails high, PCV-474 and PCV-456 will open (but close when actual pressure decreases to 2185 psig).

3. Possible reactor trip on low pressure.

4. Possible safety injection signal on low pressure.

OBJECTIVES

1. To regain pressure control by selecting the alternate control channel to terminate event without a reactor trip.

2. To restore pressurizer pressure and level to reference values.

3. To trip all the bistables associated with the failed channel within one hour.

IMMEDIATE OPERATOR ACTIONS

ACTION	COMMENTS
1. Select alternate channel for pressure control on selector switch P/455A.	1. Insure that the position selected does not utilize the defective channel.
2. Verify spray valves closed, PORV's closed and heaters energized.	
3. If step 2 does not occur, place the master pressure controller (HC-455K) in manual and return pressure to normal.	
4. Stop any unit load changes in progress.	
5. If a reactor trip occurs, refer to Emergency Operating Procedure No. OP-5	
6. If a safety injection occurs, refer to Emergency Operating Procedure No. OP-0.	

SUBSEQUENT OPERATOR ACTIONS

ACTION	COMMENTS
1. Select the pressurizer pressure recorder to record a valid pressure channel (P/455B).	

ACTION	COMMENTS
2. If a reactor trip does not occur:	
a. Ensure pressurizer level and pressure return to their normal value.	
b. Within one hour trip, all the by-stables associated with the failed pressurizer pressure channel.	b. See Table III A-1 in Volume 9 of DCPP Plant Manual.
3. Refer to Operating Procedure No. A-4B to return the PRT to normal.	

PART B: STUCK OPEN SPRAY VALVE

SYMPTOMS

1. All pressurizer pressure channels show decreasing pressure.
2. Low pressurizer pressure alarm (PK05-17).
3. Pressurizer heaters and spray on at the same time.
4. Pressurizer surge line temperature is lower than normal due to upsurge and will give an alarm.

AUTOMATIC ACTIONS

1. Backup heater energize.
2. Possible reactor trip on low pressure.
3. Possible safety injection signal.

OBJECTIVES

1. To terminate spray valve action.
2. To restore pressure control.

IMMEDIATE OPERATOR ACTION

ACTION	COMMENTS
1. Place affected spray valve controller to manual and close the spray valve.	
2. If spray valve does not completely close, ensure all heater groups are energized.	
3. Quickly drop load, if necessary, to reduce the power level to about 20%. Then trip the reactor coolant pump of the loop associated with the defective spray valve.	3. If the RCP is tripped at a power level much greater than 20%, the reactor will probably trip on low steam generator level. If the RCP is tripped above 35% power, the reactor will trip. NOTE: Loop No. 1 feeds PCV-455A and Loop No. 2 feeds PCV-455B.
4. If step 3, above, results in a reactor trip, then: a. Trip the reactor coolant pump of the loop associated with the affected spray valve. b. Proceed to Emergency Operating Procedure No. OP-5.	
5. If a safety injection occurs, proceed to Emergency Operating Procedure No. OP-0.	

SUBSEQUENT OPERATOR ACTIONS

ACTION	COMMENTS
1. If system pressure was maintained without a reactor trip. a. Return system to normal pressure by manual heater operation.	a. Use the minimum number of heater banks to maintain pressure.

ACTION	COMMENTS
b. If normal spray is not useable or inaffective when system pressure is restored, use auxiliary spray or use a pressurizer relief. Follow step No. 1C or 1D below.	
c. If auxiliary spray is needed.	
1) Ensure letdown is not isolated.	1) If letdown is isolated or becomes isolated, auxiliary spray cannot be used due to the ΔT limit (Tech Spec 3.4.9.2).
2) Close the normal charging path to the reactor coolant loop.	
3) Monitor and maintain adequate RCP seal injection.	
4) Open auxiliary spray valve to control pressure.	
d. If a pressurizer relief is needed for pressure control,	
1) Close one pressurizer relief isolation valve.	
2) When the isolation valve is closed, open its' associated PORV.	
3) The motor operated isolation valve can now be jogged for pressure control.	
e. If a spray valve is stuck open, evaluate the conditions necessary for containment entry to repair or isolate the defective valve.	
f. If the defective valve was closed, repair if possible or evaluate plant conditions to determine the feasibility of continued power operation in such a mode.	

PART C: PRESSURIZER HEATER MALFUNCTION

SYMPTOMS

The following are symptoms for 3 possible failures:

1. If controlling pressurizer heater channel fails low.
   a. Low pressurizer pressure and alarm (PK05-17) on defective channel.
   b. High pressurizer pressure and alarm (PK05-16) on other channels.
   c. Pressurizer high temperature alarm (PK05-18).
   d. No automatic initiation of sprays.
2. If heaters fail to de-energize.
   a. Pressurizer sprays and heater operating simultaneously.
3. Loss of pressurizer heaters.
   a. Low pressurizer pressure on all channels and alarm (PK05-17).
   b. No automatic initiation of pressurizer heaters.

AUTOMATIC ACTIONS

1. If controlling channel fails low, backup heaters will energize and soon pressurizer power operated relief valves will open when actual pressurizer pressure reaches 2335 psig.
2. If the heaters fail to deenergize automatically, pressurizer sprays will actuate to maintain pressure.

OBJECTIVES

1. To maintain pressure with manual control of heaters if it is determined that the pressurizer heaters are malfunctioning.
2. To reestablish automatic pressure control by selecting the alternate pressurizer control channel.

IMMEDIATE OPERATOR ACTIONS

ACTION	COMMENTS
1. Take manual control of heaters and restore pressure to normal setpoint value.	
2. If the controlling pressurizer pressure channel failed low, select the alternate control channel and reestablish normal auto pressure control	
3. Stop any unit load change in progress	

SUBSEQUENT OPERATOR ACTIONS

ACTION	COMMENTS
1. With a failed pressurizer pressure channel, within one hour trip all the bistables associated with the failed pressurizer pressure channel.	

PART D: STUCK OPEN OR LEAKING POWER OPERATED RELIEF VALVE

SYMPTOMS

1. Low pressurizer pressure indication and alarm.
2. Pressurizer relief tank pressure, level and temperature indicators read high (VB-2).
3. Pressurizer relief valve discharge temperature indicator reads high (VB-2).
4. Pressurizer PORV high temperature alarm (PK05-23).

AUTOMATIC ACTIONS

1. Backup heaters energize.
2. Reactor trip on low pressurizer pressure.
3. Safety injection on low pressurizer pressure.

IMMEDIATE OPERATOR ACTIONS

ACTIONS	COMMENTS
1. If the defective relief valve can be identified by position lights, close its motor operated isolation valve.	
2. If the defective valve cannot be identified by position lights, close all three motor operated PORV isolation valves.	
3. If the reactor trips, refer to Emergency Operating Procedure No. OP-5.	
4. If a safety injection occurs, refer to Emergency Operating Procedure No. OP-0.	

SUBSEQUENT OPERATOR ACTIONS

ACTIONS	COMMENTS
1. If the defective relief valve is isolated without a reactor trip, restore pressurizer pressure and level to reference values.	
2. If the defective valve was not identified:	
a. Wait until the discharge header temperature decreases.	
b. One at a time, crack open a motor operated isolation valve and identify the defective PORV.	b. Identify by using the discharge header temperature, PRT conditions and RCS pressure fluxuations.
c. When identified, close the associated isolation valve at the faulted PORV.	
d. Open the isolation valves on the unaffected relief valves.	
3. With abnormal conditions in the PRT, refer to Operating Procedure No. A-4B.	

APPENDIX Z

EMERGENCY PROCEDURE NOTIFICATION INSTRUCTIONS

1. When this emergency procedure has been activated and upon direction from the Shift Foreman, proceed as follows:

   a. Notify the Plant Superintendent, Supervisor of Operations and Plant Manager or their designated alternates.

   b. Designate this event a Significant Event. As a minimum, within one hour notify the NRC Operations Center using the red phone in the Control Room. Gather sufficient information from all sources prior to calling so that the phone call is meaningful. Refer to Operating Procedure O-4 "Operating Order (One Hour Reporting Requirements to the NRC)" for a suggested format for this report. Notify the NRC that your call is pursuant to 10 CFR Part 50.72, (Notification of Significant Events).

   c. If the pressure transient results in one of the following:

      1) Overtemperature ΔT or Overpower ΔT protection channel activated and not as a result of instrument failure.

      2) Exceeding the DNB parameters of technical specification 3.2.5. while in mode 1.

      3) Failure of a relief or safety valve to close.

      Designate this event a Notification of Unusual Event. Notify Plant staff and response organizations required for this classification by implementing procedures G-2 "Establishment of the On-Site Emergency Organization" and G-3 "Notification of Off-Site Organizations" in accordance with Emergency Procedure G-1 "Accident Classification and Emergency Plan Activation".

PG&E **Pacific Gas and Electric Company**

DEPARTMENT OF NUCLEAR PLANT OPERATIONS

DIABLO CANYON POWER PLANT UNIT NO(S) 1 AND 2

TITLE: EMERGENCY OPERATING PROCEDURE
TANK RUPTURES

NUMBER	EP OP-25
REVISION	2
DATE	2/2/84
PAGE	1 OF 4

IMPORTANT TO SAFETY

APPROVED: R. C. Thornberry 2-27-84
PLANT MANAGER DATE

SCOPE

This procedure outlines the steps to take in the event a gas decay tank, liquid holdup tank or volume control tank ruptures and releases radioactive gas and/or liquid to the auxiliary building.

This procedure and changes thereto requires PSRC review.

SYMPTOMS

1. Plant vent monitor high radiation alarm and containment ventilation isolation.
2. Possible LHUT or VCT low level alarm.
3. Gas decay tank, LHUT, or VCT low pressure alarm.
4. Persons near the affected areas may find themselves contaminated when checking out at access control or exposed to above normal radiation levels.

AUTOMATIC ACTIONS

1. High radiation on plant vent air particulate monitors (R-28 A or B) or plant vent radio gas monitors (R-14 A or B) initiates containment ventilation isolation.
2. At 5% VCT level charging pump suction valves from RWST 8805 A & B open and VCT outlet valves LCV's 112 B & C close.
3. Low pressure or low level in LHUT trips LHUT recirculation pump.

OBJECTIVES

1. Alert on site personnel.
2. Evaluate the release and take appropriate protective measure.

IMMEDIATE OPERATOR ACTIONS

ACTIONS	COMMENTS
1. Initiate the site emergency signal	1. Evacuation of personnel from affected area

ACTIONS	COMMENTS
2. Place auxiliary building ventilation in charcoal filter mode by SI test signal at POV 2.	2. To reduce Iodine release from plant vent.
3. Either shutdown or place the unaffected units auxiliary building ventilation system in the charcoal filter mode of operation.	

SUBSEQUENT OPERATOR ACTIONS

ACTIONS

1. Evacuate all personnel from the affected area.

2. Refer to the following emergency operating procedures applicable:

   R-1 Personnel Injury (Radiological Related) and/or overexposure

   R-2 Release of Airborne Radioactive Materials

   R-4 High External Radiation

   R-5 Radioactive Liquid Spill

3 Isolate the release

   a. For a gas decay tank rupture:

      1) Select the affected tank to standby so that it is neither filling nor providing recycle gas.

   b. For a LHUT rupture:

      1) Stop any transfer or recirculation operation involving the affected LHUT.

      2) Line up a different LHUT to receive letdown from the primary system other than the affected LHUT.

ACTIONS	COMMENTS
3) Stop any cover gas recycle to the affected LHUT.	
4) Check VCT and accumulator test line discharge lined up to another LHUT and isolate discharge to affected LHUT.	
c. For a VCT rupture	
1) Place the VCT level control LCV-112A in the DIVERT TO HOLDUP TANK position.	
2) Check transferred or transfer charging pump suntion from VCT to RWST (open 8805 A&B and close LCVs 112 B&C).	
3) Terminate VCT makeup.	
4) Secure hydrogen supply to the affected unit's VCT at the hydrogen bottle rack.	4) Make arrangements for an alternate souce of hydrogen makeup to Unit 1 generator.
5) Check closed or close VCT to vent header stop valve (8101) and PZR liquid space and steam space sample line containment isolation valves (9355A, 9355B, 9354A, 9354B).	
6) Commence a controlled reactor shutdown.	6) Drop load on unit as necessary to maintain rod position and Tavg approximately equal to Tref.
4. Verify containment ventilation isolation and reset containment ventilation isolation trains A & B	

APPENDIX Z

EMERGENCY PROCEDURE NOTIFICATION INSTRUCTIONS

1. When this emergency procedure has been activated and upon direction from the Shift Foreman, proceed as follows:

   a. The precise designation of this event will be determined by the radiological effect of the leak. Refer to Emergency Procedure R-2 "Release of Airborne Radioactive Material" and R-4 "High Radiation (In-plant). As a minimum, in the absence of data on radiation levels or release rates, designate this event a Notification of Unusual Event. Notify plant staff and response organizations required by Emergency Procedures G-2 "Establishment of the On-Site Emergency Organization" and G-3 "Notification of Off-Site Organizations" in accordance with Emergency Procedure G-2 "Accident Classification and Emergency Plan Activation."

PG&E **Pacific Gas and Electric Company**

DEPARTMENT OF NUCLEAR PLANT OPERATIONS

DIABLO CANYON POWER PLANT UNIT NO(S) 1 AND 2

TITLE: EMERGENCY PROCEDURE
PERSONNEL INJURY OR ILLNESS (RADIOLOGICALLY RELATED) AND/OR OVEREXPOSURE

NUMBER EP R-1
REVISION 11
DATE 2/21/84
PAGE 1 OF 16

APPROVED: R. C. Thornberry 3-30-84
PLANT MANAGER DATE

SCOPE

This procedure describes the actions which are to be taken in the event of:

1. Personnel injury or illness (minor or serious) where the victim is radiologically contaminated.

2. Overexposure (or suspected overexposure) from an external source.

3. Overexposure (or suspected overexposure) from an internal source.

4. A combination of the above.

Injuries or illnesses which do not involve radioactive contamination or overexposure are handled in accordance with Emergency Procedures M-1 or M-2. This procedure and changes thereto requires PSRC review.

DISCUSSION

Any radiologically related injury or illness or potential radiation overexposure is a serious matter requiring prompt attention to the care of the patient and prompt appropriate corrective action to preclude re-occurrence. In addition, followup investigation to quantify the extent of exposure to radiation requires care in the gathering and retention of samples, radiation readings and other evidence which may contribute to the understanding of the incident and assist both in care of the injured and in preventing re-occurrence.

IMMEDIATE ACTIONS

1. The employee(s) who are at the scene shall:

   a. Render all necessary first aid.

b. Notify the control room (Shift Foreman) as soon as practical, and provide a phone number for the patients location.

NOTE: The Shift Foreman may be notified by dialing [redacted] Dialing [redacted] activates the fire alarm and medical emergency code call. The caller must remain on the phone to enable the Shift Foreman to dial into a conference call.

2. Shift Foreman (Interim Site Emergency Coordinator)

a. Evaluate plant status that may have produced the personnel injury, illness and/or overexposure. Sound the site emergency signal to clear the affected area, if the situation warrants it.

b. Dispatch additional first aid personnel such as the project construction EMT [(ext. [redacted]] to the scene of the injury or illness if required.

c. Notify Chemistry and Radiation Protection personnel [(ext. [redacted]]

d. Call an ambulance if the injury warrants it. Refer to Appendix 1 "Measures to be taken if Medical Care Is Required" for instructions.

SUBSEQUENT ACTIONS

The Shift Foreman shall direct all subsequent actions until relieved by the long-term Site Emergency Coordinator if the situation warrants it.

1. Actions Common to All Occurrences

a. Transport the patient to the first aid room, provided that this can be done without aggravating the injury.

b. Take actions as specified in the following sections as appropriate for the particular occurrence.

Section 2: Minor injury when contamination is present.

Section 3: Serious injury when contamination is present.

Section 4: Overexposure from external source

Section 5: Overexposure from internal source.

c. Perform the notifications required by Appendix Z "Emergency Procedure Notification Instructions."

NOTE: Form 69-9221 "Emergency Notification Record" is provided to record notifications not documented elsewhere.

d. Collect personnel dosimetry assigned to the individual and have it evaluated.

e. Begin gathering information to assist the long-term Site Emergency Radiological Advisor in his evaluation. Guidance on things which should be investigated is given in Appendix 2 "Factors to Consider in Making a Preliminary Evaluation."

f. Close out the event with the following written reports:

1) Report to NRC (required within 24 hours for an Unusual Event, or within 30 days for a report under 10CFR20.403).

2) Form 62-4587 "Report of Industrial Injury to Employee."

3) Form 62-4586 "Employers' Report of Occupational Injury or Illness."

4) Nuclear Plant Problem Report. (See Nuclear Plant Administrative Procedure C-12.)

NOTE: Reports to NRC and the Nuclear Plant Problem Report are not required for minor injuries or illness for which onsite first aid and decontamination is adequate.

2. Minor Injury or Illness When Contamination is Present

The following steps apply to injuries where prompt medical attention is not required (i.e., first aid at the plant is adequate).

a. Make the following surveys and record the results on the "Skin and Clothing Decontamination" Form (Form 69-9392).

1) The wound prior to decontamination.

2) The object causing the injury (if possible) and any clothing penetrating or touching the injury. These items should be retained, if possible, until the long-term Site Emergency Radiological Advisor has completed his evaluation so that detailed radionuclide analysis can be performed, if required.

3) The wound during each decontamination and after final decontamination.

NOTE: These personnel surveys are in addition to other radiological surveys (e.g., work area, equipment) which may be required by radiation protection management.

b. Decontaminate the wound using the standard procedures discussed in Radiation Control Procedure G-4. In cases of severe contamination, where there is a realistic possibility that significant internal retention of radionuclides may have occurred, it is desirable to retain wash solutions (or samples thereof), swabs, and other such material which may be useful to the Site Emergency Radiological Advisor.

NOTE: Refer to Emergency Procedure RB-5 "Personnel Decontamination" in the event normal decontamination facilities are overloaded or unavailable.

c. Complete any additional first aid measures.

d. Complete accident report Form 62-4587, "Report of Industrial Injury to Employee" and forward to plant clerk for processing.

NOTE: This documentation requirement assumes no medical attention (beyond first aid) is required and that no lost time occurs. If lost time beyond the day of injury is likely, or if medical treatment (including doctor referral) is required, complete Form 62-4586, "Employers' Report of Occupational Injury of Illness" and forward to plant clerk.

3. Serious Injury or Illness When Contamination is Present

The following steps apply to injuries or illnesses where prompt medical attention is required (i.e., the patient must be taken to a hospital) and the patient is contaminated. In this type of circumstance, the need for treatment of the injury and comfort of the patient will take precedence over the need for decontamination.

a. Call San Luis Ambulance and French Hospital and have the patient transported to French Hospital. The detailed steps to be taken if this is required are given in Appendix 1 of this procedure. The Control Room should keep personnel attending the patient informed of the status of the ambulance.

b. During the interval until the ambulance arrives keep the patient as comfortable as possible. Survey and decontaminate the patient to the extent that time and conditions permit. Do not decontaminate the patient if it will aggravate his injury. Record survey results on the "Skin and Clothing Decontamination" Form (Form 69-9392.)

1) Survey any wounds and/or the victim's skin (if possible).

2) Survey the object causing the injury (if possible) and any clothing penetrating or touching the injury. These items should be retained, if possible, until the long-term Site Emergency radiological Advisor has completed his evaluation so that detailed radionuclide analyses can be performed, if required.

3) Decontaminate the patient using the standard procedures discussed in Radiation Control Procedure G-4. In cases of severe contamination, where there is a realistic possibility that significant internal retention of radionuclides may have occurred, it is desirable to retain wash solutions (or samples thereof), swabs, and other such material which may be useful to the Site Emergency Radiological Advisor.

NOTE: Refer to Emergency Procedure RB-5 "Personnel Decontamination" in the event normal decontamination facilities are overloaded or unavailable.

c. Have the hospital kit and a handheld radio available for transport to the hospital with the monitor accompanying the patient, or the team dispatched to the hospital.

4. Overexposure From External Source

The following steps apply to cases where the patient has (or is suspected to have) received a dose from an external source to the whole body, or any portion thereof, in excess of an applicable limit contained in Radiation Control Standard No. 1, and where the individual does not require prompt medical attention for any other reason. Personnel suspected of overexposure shall not re-enter radiation controlled areas unless authorized by the Site Emergency Coordinator.

a. Provide any first aid or medical attention which the patient may required.

b. Notify San Luis Ambulance and French Hospital and transport the patient to French Hospital in accordance with Appendix 1 for observation or treatment in any of the following circumstances: 1) The patient is known or suspected to have received at least any of the following:

a) 25 rem to the whole body, active blood forming organs, lens of eyes, gonads, head or trunk.

b) 150 rem to the skin.

c) 375 rem to the extremities.

2) The patient shows signs of radiation sickness, such as nausea, vomiting, extreme sweating, weakness, diarrhea, extreme anxiety, incoherence, sensitivity of the nerves (tingling or itching sensation).

3) The patient shows evidence of radiation dermatitis (skin damage). Except for extremely high skin dose (greater than 5,000 rem), in which case pain occurs promptly and is intense, the symptoms at the time of exposure are a sensation of warmth and itching. Redness, blistering and other effects may not appear for several days.

c. If the patient requires transportation to the hospital, during the interval until the ambulance arrives keep the patient comfortable. Survey the individual and perform any decontamination which circumstances require and/or permit. Do not aggravate any injury or unduly alarm the patient in performing these operations. Record survey results on the "Skin and Clothing Decontamination" Form (Form 69-9392) and/or "Radiation Dose Rate Survey Record" (Form 69-9316). In cases of severe contamination, handle as in Step 3.c to the extent practical.

d. To the extent practical, save all vomit, urine, feces or other samples which may assist the long-term Site Emergency Radiological Advisor in evaluating the accident. This is particularly important if internal deposition of radioactive materials is suspected.

e. Collect the patient's personnel dosimetry and any materials which may have been activated (if a neutron exposure is suspected) such as belt buckles, watches, jewelry, prior to sending him to the hospital or releasing him. This will be processed for evaluation.

f. Subsequent actions will be based upon the results of the evaluation of the external exposure.

5. Overexposure From Internal Sources

The following steps apply to cases where the patient has (or is suspected to have) ingested a significant quantity of radioactive material. If the ingestion was by breathing, this procedure applies any time that the concentration to which the person has been exposed is greater than or equal to (MPC) x PF, where (MPC) refers to the normal (40 hr.) maximum permissible concentration, and PF refers to the protection factor the patient obtained when a quantitatively fit tested to the respirator that was worn for the job.

a. Take any medical action which may be required as a result of injury or external dose received (Steps 3 and 4 above). The treatment of these effects should take precedence over the evaluation of internal exposure.

b. Remove and retain for subsequent radiological analysis the patient's clothing and respirator.

c. Survey the patient thoroughly and record the results on the "Skin and Clothing Decontamination" Form (Form 69-9392).

d. Decontaminate individual to as low as practical without causing further injury. If practical, save samples of the decontamination solutions, swabs, and other materials which may be of use in subsequent radiological evaluations.

e. Count the patient on the whole body counter. The results of this analysis will, in large measure, determine the necessity for further medical attention or surveillance.

f. Collect and save any urine, feces, or vomit which is passed from the patient. The long-term Site Emergency Radiological Advisor may request that special urine samples be collected for bioassay.

g. Subsequent actions will be based upon the results of the evaluation of the internal exposure.

h. If the patient is sent to the hospital, make arrangements to have all urine, feces or vomit samples retained for radiological analysis.

REFERENCES

1. Radiation Control Standard No. 1, "Personnel Exposure."
2. Radiation Control Standard No. 2, "Internal Exposure Controls."
3. Radiation Control Standard No. 5, "Medical."
4. Radiation Control Standard No. 8, "Reporting Requirements."
5. Radiation Control Procedure No. G-3, "Personnel Internal Exposure Control."
6. Radiation Control Procedure No. G-4, "Personnel Contamination Control."
7. Radiation Control Procedure No. G-7, "Radiation Surveys."
8. Emergency Procedure G-1, "Accident Classification and Emergency Plan Activation."
9. Emergency Procedure G-2, "Establishment of the Onsite Emergency Organization."
10. Emergency Procedure G-3, "Notification of Offsite Organizations."
11. Emergency Procedure R-4, "High Radiation (In Plant).
12. Emergency Procedure RB-5, "Personnel Decontamination."
13. Emergency Procedure OR-1, "Offsite Support and Assistance"

APPENDICES

1. Appendix 1, Measures To Be Taken If Medical Care Is Required.
2. Appendix 2, Factors To Consider In Making A Preliminary Investigation.
3. Appendix Z, Emergency Procedure Notification Instructions.

ATTACHMENTS

1. Form 69-9221, "Emergency Notification Record."
2. Form 69-9316, "Radiation Dose Rate Survey Record."
3. Form 69-9392, "Skin and Clothing Decontamination."
4. Form 62-4587, "Report of Industrial Injury to Employee."
5. Form 62-4586, "Employers' Report of Occupational Injury or Illness."
6. Form 62-6015, "Medical Referral."
7. Light Duty Program Letter.
8. Safety, Health and Claims Personnel to Be Contacted for Reporting of Injuries at Diablo Canyon (3/83).

APPENDIX 1

MEASURES TO BE TAKEN IF MEDICAL CARE IS REQUIRED

The following are the procedural steps to be taken in the event a contaminated patient must be transported to the hospital for medical treatment:

1. Call San Luis Ambulance (Phone [redacted] Emergency No. [redacted] and provide the following information:

   a. Name of caller.

   b. Company affiliation.

   c. Phone number of caller. (Where he can be reached.)

   d. Name of injured or ill person.

   e. Where the patient is located.

   f. Where the patient is to be transported (French Hospital).

   g. Nature of injury or illness.

   h. Patient is contaminated.

   i. Any other medical information which might be pertinent to transporting the patient.

   Record this information on Form 69-9221, "Emergency Notification Record," or other suitable log.

2. Contact the Security Shift Supervisor [redacted] and have him call the security force at the Port San Luis entrance [redacted] and alert them that the ambulance is entering. It is also advisable to have an escort accompany the ambulance from the Security Building to the first aid room to minimize the delay in reaching the destination.

3. The victim shall be transported to French Hospital. Call ahead to the hospital (Phone [redacted] and provide the following information:

   a. Name of caller.

APPENDIX 1 (Cont'd)

MEASURES TO BE TAKEN IF MEDICAL CARE IS REQUIRED

b. Company affiliation.

c. Phone number of caller. (Where he can be reached.)

d. Name of injured or ill person.

e. Age of injured or ill person (approximate if not known).

f. Extent of injury, illness or symptoms.

g. Medical history (if known).

h. Radiological conditions.

Record this information on Form 69-9221, "Emergency Notification Record", or other suitable log.

4. Prior to arrival of the ambulance, the patient should be decontaminated to the extent practical without aggravation of injury.

5. If the patient cannot be completely decontaminated prior to arrival of the ambulance, wrap him in a blanket prior to placing him in the ambulance in order to minimize the spread of contamination. Alternatively, he may be placed in the plant's Nuclear Accident Emergency Carrier.

6. An individual qualified in radiation monitoring shall accompany the victim to the hospital. This individual should take a hospital kit and a handheld radio with him.

NOTE: Two hospital kits and radios are stored in Access Control. Additional equipment and radios are also available at the PG&E San Luis Obispo Service Center.

7. Two additional individuals qualified in radiation monitoring should be dispatched to French Hospital to assist hospital personnel.

NOTE: Refer to EP OR-1 "Offsite Support and Assistance" for air ambulance and medivac support.

APPENDIX 2

FACTORS TO CONSIDER IN MAKING A PRELIMINARY INVESTIGATION

It is important to conduct the preliminary investigation in a systematic manner to assure that potentially valuable evidence is not overlooked, lost or destroyed. The following is a reference listing of items which should be checked (if they are applicable). Also, two other factors are important in conducting an investigation of this type, namely: a) information which is gathered should be written down in a comprehensive, neat manner, and b) all samples, clothing, or other articles which are collected should be put in sample bottles or plastic bags, and labelled with the patient's name, date, collection time, sample identification, and other pertinent data.

1. Factors Common to All Accidents

   a. Date, time of occurrence.

   b. Basic reconstruction of events.

   c. Probable source(s) of radioactivity involved.

   d. Names and addresses of all witnesses.

2. Considerations in Evaluating External Exposure

   a. Exactly where was the patient located at the time of exposure?

   b. How was patient physically oriented with respect to source (will help to evaluate nonuniform exposure)?

   c. On what part(s) of body were dosimeters being worn?

   d. Were self-reading dosimeter readings recorded and all nonself-reading types collected?

   e. Are there any "natural" dosimeters available? (Belt buckles, wrist watches, gold tooth fillings, and other such items are useful in determining neutron dose.)

   f. Exactly what was the time interval over which exposure occurred?

g. Are there any applicable dose rate measurements, and if so, exactly where and when were they made?

1) Ion chamber measurements

2) Area monitors

3) Other

h. What was the status of the plant at time of exposure?

3. Considerations in Evaluating Internal Exposure

a. Where was the patient located at time of exposure?

b. Exactly what was the time interval over which exposure occurred?

c. Can sample(s) of liquids which were internally deposited be obtained?

d. Can samples of airborne activity which were breathed be obtained before the area is purged?

e. Are there any applicable monitor readings?

1) Process monitors

2) Continuous Air Monitors

3) Area Monitors

4) Other

f. Can samples of patient's clothing, decontamination solutions, secretions, respirator filters, be saved?

g. Can the region in the vicinity of the occurrence be smear-tested, or can decontamination solutions be retained?

APPENDIX Z

EMERGENCY PROCEDURE NOTIFICATION INSTRUCTIONS

1. When this emergency procedure has been activated and upon direction from the Shift Foreman, proceed as follows:

   a. In case of a minor injury with contamination present or an overexposure case from any source which does not meet the criteria for an Unusual Event, notify the Plant Manager, Plant Superintendent and Supervisor of Chemistry and Radiation Protection or their designated alternates.

   b. Designate this a Notification of Unusual Event in any case of an injury or overexposure requiring transportation of the patient to an offsite hospital or if extensive onsite decontamination is required (soap and water washings do not remove contamination or offsite decontamination assistance is required). Notify plant staff and response organizations required for this classification by implementing Emergency Procedures G-2 "Establishment of the Onsite Emergency Organization" and G-3 "Notification of Offsite Organizations" in accordance with Emergency Procedure G-1 "Accident Classification and Emergency Plan Activation."

   c. If the case involves an overexposure from an external source which exceeds:

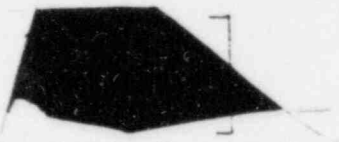
Immediate Notification*	Notification Within 24 Hours
25 Rem Whole Body	5 Rem Whole Body
150 Rem Skin	30 Rem Skin
375 Rem Extremities	75 Rem Extremities

   Notify the Director, NRC Region 5 by telephone and telegraph, mailgram and facsimile within the applicable time frame described above. Indicate the notification is pursuant to 10 CFR20.403 (Notification of Incidents).

   *Designate this a Notification of Unusual Event and complete the additional notifications prescribed in section 1.b. above.

2. In addition to notification performed above, also notify the following in any case where NRC notification is required.

   a. Supervising Nuclear Generation Engineer (Personnel and Environmental Safety) or his alternate in the Department of Nuclear Plant Operations:

      Mr. W. H. Fujimoto [PGandE:  Plant Ext.: Home:]

   b. Compensation Claims Representative in the Department of Safety, Health and Claims, per the attached list of personnel.

      NOTE: 1) The System Dispatcher will handle the notification of General Office Personnel if they cannot be promptly reached.

      2) Nuclear Mutual Limited (NML) holds the Company liability and property damage insurance for Company personnel and property. They should be notified under the same circumstances as the NRC. Notification is made by the Company's Insurance Department. The Department of Nuclear Plant Operations should be requested to interface between the plant and the Insurance Department when required. American Nuclear Insurers/Mutual Atomic Energy Liability Underwriters (ANI/MAELU) holds third party insurance coverage and would be similarly notified in accidents involving a third party.

69-5221 3/82 (100)

DEPARTMENT OF NUCLEAR PLANT OPERATIONS
DIABLO CANYON POWER PLANT

EMERGENCY NOTIFICATION RECORD

EMERGENCY IDENTIFICATION _____ DATE _____ SHEET _____

PERSON CALLED	AFFILIATION	TIME	REACHED	BY	MESSAGE GIVEN	RESPONSE

49-9316-7/80 (100)

DEPARTMENT OF NUCLEAR PLANT OPERATIONS
DIABLO CANYON POWER PLANT

RADIATION DOSE RATE SURVEY RECORD

DATE _____ TIME _____ SWP/RWP NO _____ SURVEY NO. _____

AREA OR EQUIPMENT _____ SHEET ___ OF ___

TYPE OF SURVEY _____

ITEM NO.	DESCRIPTION	BETA		GAMMA		NEUTRON	
		mrad/hr	distance	mR/hr	distance	mrem/hr	distance

SURVEYED BY _____

SURVEY TYPE	INSTRUMENT	TYPE DETECTOR	SERIAL NO.	DATE CALIB. DUE
BETA				
GAMMA				
NEUTRON				

COMMENTS _____

RECOMMENDATIONS _____

SURVEY REVIEWED _____ DATE _____
SUPERVISOR

69-9392 7/81 (100)

DIABLO CANYON POWER PLANT

SKIN AND CLOTHING DECONTAMINATION

NAME				DATE	TIME OF OCCURRENCE	AM / PM
UNIT	CLSY.	BLDG.	ROOM	AIR SAMPLE LOG NUMBER	SURVEY LOG NUMBER	

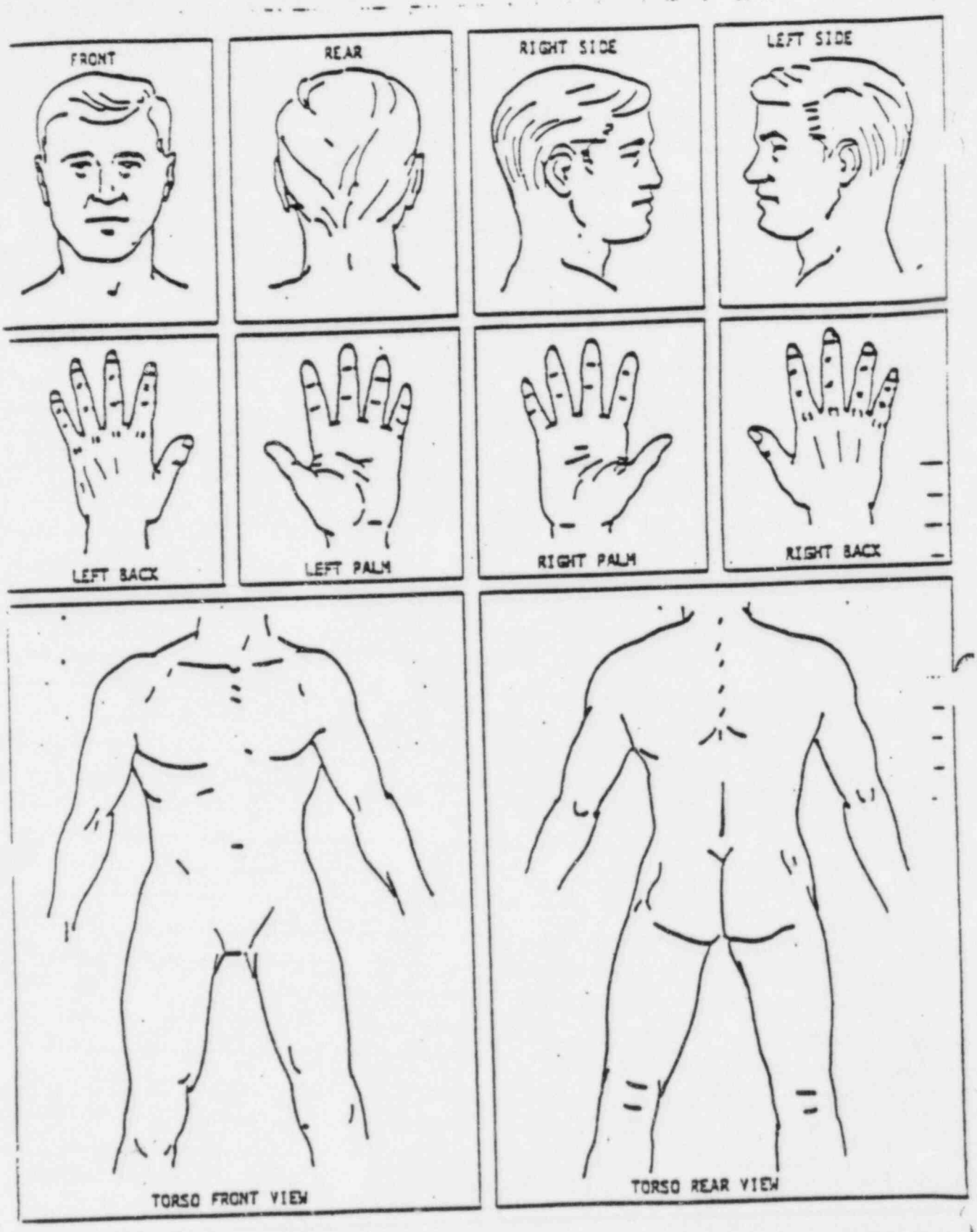
ITEM NO.	LOCATION OF CONTAMINATION	TIME OF SURVEY	INITIAL SURVEY RESULTS	SURVEY INSTRUMENT

DECONTAMINATION INFORMATION

ITEM NO.	DECONTAMINATING AGENT USED	TIME	SURVEY INSTRUMENT	SURVEY RESULTS	SKIN CONDITION AFTER TREATMENT

REMARKS

SIGNATURE: _____


FRONT
REAR
RIGHT SIDE
LEFT SIDE
LEFT BACK
LEFT PALM
RIGHT PALM
RIGHT BACK
TORSO FRONT VIEW
TORSO REAR VIEW
SKIN
PROTECTIVE CLOTHING
PERSONAL CLOTHING

62-4587 Rev. 1/79

PACIFIC GAS AND ELECTRIC COMPANY

Report of Industrial Injury to Employee

1. Name _____ 6. Division _____
2. Address _____ ZIP _____
3. Telephone No. _____ 7. Department _____
4. Social Security No. _____ 8. Date of Accident _____
5. Occupation _____ 9. Time of Accident _____
10. Location of Accident _____ 11. Nature of Injury _____
12. What were you doing and how did accident occur? _____

_____

_____

13. Describe First Aid rendered: _____
14. Witnesses to accident:
    1. _____
    2. _____
    3. _____
15. _____
    Signature of Employee
16. Date injury reported: _____
17. Date 30 days elapses: _____ 18. _____
    * See Over Signature of Supervisor

INSTRUCTIONS: This report (Items 1 thru 15) should be *written* and *signed* by the *employee personally* and countersigned by the supervisor. It is for all industrial injuries and is in duplicate. The original is to be retained for Company records; the copy is to be detached after completion and given to the employee. Before signing in Item 18, the *supervisor* should fill in the date of the report (Item 16) and compute and notate the date *30 days* from the date the injury was reported (Item 17).

If the employee later requires treatment by a doctor or becomes disabled, Form 62-4586 must be prepared and forwarded to the Safety, Health and Claims Department *IMMEDIATELY* accompanied by the original of this report.

If the employee is unable to fill out or sign this report, it should be prepared, signed by the supervisor and the employee should be given a copy within 5 days as required by law.

If the [illegible] employee cannot write English, the report may be made according to a verbal statement. If necessary, the employee may sign by a mark and a witness to the report should sign below the employee's mark.

If you wish to exercise your rights under item (1) of the information section, please separate this page and present it to your selected physician.

§ 9788. Duties of the Employee-Selected Physician. The physician or facility chosen by the employee who undertakes to provide treatment pursuant to Labor Code Section 4600 shall:

(a) Within 3 working days after undertaking to provide such treatment notify the employer of the name and address of such treating physician or facility, and

(b) Within 5 working days following initial examination shall submit a written report to the employer to include:

(1) The name and address of injured employee;

(2) The employee's medical history as obtained by the physician;

(3) Findings on examination;

(4) The subjective complaints reported by the employee;

(5) The planned course, dates and duration of treatment;

(6) If appropriate, the estimated return-to-work date;

(7) An opinion as to whether residual permanent disability is to be anticipated and, if possible, an estimate of its extent;

(8) An opinion as to whether the employee will eventually be able to engage in the occupation being performed at the time of injury.

(c) At reasonable intervals during active treatment submit progress reports to the employer and, particularly, report promptly to the employer when:

(1) The employee's condition permits return to work;

(2) The employee's condition requires him or her to leave work;

(3) Hospitalization or surgery is indicated as recommended;

(4) The employee's condition becomes permanent and stationary;

(5) The employee's condition undergoes a previously unreported significant change; (the report shall contain a assessment of the proposed course of treatment required, if any, by that change);

(6) The employee is referred to another physician for consultation;

(7) The employee reasonably requests additional appropriate information.

Rev 7/79

PACIFIC GAS and ELECTRIC COMPANY

Employer's Report of Occupational Injury or Illness

CONFIDENTIAL – *For Use by Company Attorneys*

DIVISION
GENERAL OFFICE OR
GENERAL CONSTRUCTION

DEPARTMENT | DISTRICT, TOWN OR LOCAL OFFICE | NUMBER

LOCATION OR ITEM NUMBER | ACCOUNT NUMBER | JOB NUMBER

ACCIDENT REPORT NUMBER

[illegible]

		PLEASE DO NOT USE THIS COLUMN
1. Name: PACIFIC GAS AND ELECTRIC COMPANY, 77 BEALE STREET, SAN FRANCISCO, CA 94106	4. Nature of Business: PUBLIC UTILITY – Gas & Electric	
2. Mailing Address: Phone 781-4211, Ext. 2171		
3. Address and Phone Number of Reporting O.S.H.A. Establishment	5. Unemployment Insurance Account Number: 002-2199	
6. Name	7. Social Security Number	
8. Home Address	8a. Home Phone Number	
9. Sex ☐ MALE ☐ FEMALE	10. Occupation / Job Title	11. Age	12. Department	
13. Wages $ ☐ PER WEEK ☐ PER MONTH	13a. Length of Service with P.G.& E. Co. ______ YEARS	
13b. A ☐ Less than Six Months B ☐ Six Months to Two Years C ☐ Over Two Years	13c. Years of Experience	
14. Where did accident occur? Number and Street / City or Town / County	15. On Employer's Premises ☐ YES ☐ NO	
16. What was employee doing when injured?		
17. How did accident or illness occur?		
18.		
19. Nature of injury or illness and part of body affected		
20. Name and address of physician	21. Name and address of hospital, if hospitalized	
22. Date of injury or illness	23. Time of Day ____ HOURS	24. Has employee unable to work ... ☐ YES – Date last worked ☐ NO	
25. Has employee returned to work? ☐ YES – Date returned ☐ NO	☐ YES	
26. Did employee die? ☐ YES – Date ☐ NO		
Date accident first reported	Date of this report		

Filing of this report is not an admission of liability. "... No report of injury required to be filed by an employer or insurer by this chapter shall be admissible as evidence in any adversary proceeding before the Workmen's Compensation Appeals Board."

Labor Code, Section 6412

FIRM: PACIFIC GAS & ELECTRIC COMPANY

OFFICIAL POSITION: Mgr., Safety, Health & Claims Dept.

TELEPHONE: 781-4211 EXTENSION: 2171

Report # _____ Date _____, 19___

Dr. _____

Kindly give to bearer,

Mr./Ms. _____

medical attention, and forward a complete detailed report immediately to Manager, Safety, Health and Claims Dept., 245 Market Street, San Francisco, 94106. Your bills should be itemized and all bills and reports rendered in triplicate.

PACIFIC GAS AND ELECTRIC COMPANY

By _____ RC # _____

Mgr. – Foreman – Supt.

62-0015 (REV. 5/68)

PLEASE COMPLETE AND RETURN TO EMPLOYEE

(EMPLOYEE MUST HAVE COMPLETED CARD TO RETURN TO WORK)

Pacific Gas and Electric Co.: Date _____, 19___

Mr./Ms. _____

Occupation _____ Report # _____

Employed By _____ RC # _____ Division.

Injured at _____ a.m./p.m. on _____, 19_____

☐ Return to full work immediately _____

☐ Modified work until _____

☐ Unable to work until _____

☐ Restrictions or limitations _____

☐ Return Appt. Date: _____ Time: _____

☐ Discharged from treatment _____

Signed _____ MD.

PACIFIC GAS AND ELECTRIC COMPANY

PG&E —

DIABLO CANYON POWER PLANT
P.O. Box 56 · Avila Beach, California 93424 · (805) 595-7311

[redacted]

Dear Dr.

Thank you for being one of our panel physicians that treat our employees. Our primary goal is to provide employees who sustain industrial injuries requiring medical attention with prompt, first-class treatment. Your assistance in this endeavor is appreciated.

There is an area of concern to us. While the number of employees that require treatment by a physician has remained stable or in some cases declined, the number of disabling injuries requiring time away from work, i.e., lost time injuries, has dramatically increased.

We believe that some of this time away from work might possibly be avoided if the availability of light (modified) duty or desk-type work were more widely known. Some physicians have stated that in some cases the patient will respond more rapidly to treatment if kept busy in a light-duty capacity. Productive, light-duty assignments are almost always available for employees released for work within the medical restrictions established by the physician.

It our policy to have an injured employee accompanied by a supervisor or other representative on the first doctor's visit. Should there be any question about the availability or type of light duty that can be provided, he or she will be able to answer for us.

Our employees' welfare is our main concern. Should you have any questions about our program, I will be glad to call on you at your convenience.

Sincerely,

R. C. THORNBERRY

RCT:kgs

3/83
RW9

PACIFIC GAS AND ELECTRIC COMPANY
DEPARTMENT OF NUCLEAR PLANT OPERATIONS
DIABLO CANYON POWER PLANT UNIT NOS. 1 AND 2

Safety, Health and Claims Personnel to be Contacted for Reporting of Injuries at Diablo Canyon[1]

EMPLOYEE INJURIES

In all cases of serious employee injuries (for example, injuries involving hospitalization, electric contact, hernia, amputation, fractures, or injuries expected to result in lost time from work beyond the day of injury) or death, which occur while on the job, report should be made as follows:

During Working Hours:

T. B. Honey PGandE local [redacted]

(If Mr. Honey is not available, the person answering the telephone will take the message and notify Mr. Honey or any other parties necessary in the Safety, Health and Claims Department).

Any Other Time:

Report to one of the persons on the following list, trying each in order until one is contacted:

1.	T. B. Honey	Pinole
2.	A. Thomas	San Francisco
3.	C. B. Powell	San Francisco
4.	P. S. Benitez	San Rafael
5.	T. G. Scott	Oakland
6.	L. Lasagna	Albany
7.	C. W. Allen	San Francisco
8.	B. L. Wade	Larkspur
9.	J. A. Glimme	Danville
10.	J. C. Vocke	Lafayette
11.	W. A. Hutchison	San Carlos
12.	M. C. Dolan	Oakland
13.	M. W. Johnson	Walnut Creek
14.	R. W. Hall	Richomod
15.	I. M. Crawford	Hercules
16.	R. G. Schumaker	El Granada
17.	R. O. Fagg	San Rafael
18.	P. C. Boettcher	Moraga
19.	H. W. Reynolds	Sunnyvale
20.	B. P. Sadler	Belmont

[redacted]

[1] This listing extracted from Safety, Health, and Claims memo regarding Personnel to be Contacted for Reporting of Accidents, dated 01/13/83.

Non-Employee Injuries

C. O. Schreil, San Luis Obispo, [redacted] (office)
(office)
(home)

If he cannot be reached, contact one of the following in order of preference:

During working hours:

1. John C. Echols
2. Doug G. Keeler
3. George G. Perry (collection only)

[redacted]

After working hours on Monday through 8:00 a.m. on Friday, except holidays:

1. John C. Echols	Pleasant Hill
2. Doug G. Keeler	Concord
3. John C. Vocke	Layfayette
4. Amos L. Bechtold	Cupertino
5. William H. Bingaman	Novato
6. E. Anthony Giudici	San Carlos
7. J. Alex McCorquodale	San Ramon
8. Bruce P. Sadler	Belmont
9. George G. Perry (collection only)	Hayward
10. Stanley W. Johnston	Fairfield

[redacted]

After 5:00 p.m. on Fridays to 8:00 a.m. on Mondays and holidays:

Contact the Investigator delegated to stay on call for all emergencies. He may be reached through the System Dispatcher. If he is not available, the Dispatcher will follow the procedures for "After Working Hours."

PG&E **Pacific Gas and Electric Company**

DEPARTMENT OF NUCLEAR PLANT OPERATIONS

DIABLO CANYON POWER PLANT UNIT NO(S) 1 AND 2

NUMBER EP R-7
REVISION 4
DATE 11/21/83
PAGE 1 OF 10

TITLE: EMERGENCY PROCEDURE
OFFSITE TRANSPORTATION ACCIDENTS

IMPORTANT TO SAFETY

APPROVED: R. C. Thornberry PLANT MANAGER 3-9-84 DATE

SCOPE

This procedure discusses the response of the plant personnel to transportation accidents which occur offsite involving shipments of radioactive material. Accidents which occur onsite are handled using Emergency Procedures R-2, R-3, R-4, or R-5 as appropriate. This procedure and changes thereto requires PSRC review.

DISCUSSION

Once a shipment of radioactive materials has left the site, or prior to its arrival on the site, the responsibility for it rests with the carrier. In the event of a transportation accident, the responsibility for recovery rests with the carrier and local and state officials, rather than with the Company. However, if an accident occurs in the vicinity of the plant, local officials may request the assistance of plant personnel for radiological monitoring because of their knowledge and experience and because of the monitoring and other equipment at their disposal. Plant personnel should be prepared to assist to the maximum extent practical, while at the same time recognizing that they are acting in a strictly advisory capacity.

SYMPTOMS

The Shift Foreman is notified that an accident involving radioactive material has occurred.

IMMEDIATE OPERATOR ACTIONS

1. In the initial contact, the individual receiving the message should try to gather the following information:

   a. Location of accident.

b. Type of material involved:

1) New fuel

2) Spent fuel

3) Solid radwaste

4) Liquid radwaste

5) Pharmaceuticals

6) Sources

7) Special Nuclear Material

c. Type of container(s) involved.

d. Apparent extent of damage.

e. Is there fire or submergence of the containers?

f. Are there personnel injuries?

g. The results of any measurements which have been made.

h. Who is on the scene and who is in charge?

i. What recovery actions are planned or being taken?

j. The identity of the carrier.

k. Origination point and destination of the shipment.

l. The name and phone number of the caller.

2. Notify the Shift Foreman.

3. The Shift Foreman should insure that a record is kept of the initial contact as well as all subsequent contacts with offsite persons. Form 69-9221, "Emergency Notification Record," is provided to assist in this.

SUBSEQUENT ACTIONS

1. Perform the notifications required by Appendix Z.

2. Send a two man survey team to the scene. The team should carry the following minimum equipment:

   a. Dose rate instrument (HPI-1010, Radowl or equivalent).

   b. G-M survey instrument.

   c. Alpha survey instrument (only if the accident involves new fuel assemblies or an alpha emitting source).

   d. Air sampler with appropriate filters and cartridges.

   e. Radiation barrier rope.

   f. Warning signs: "Caution - Surface Contamination Area" and "Caution - Radioactive Materials."

   g. Smear pads and/or 2" duplex papers

   h. Plastic bag for retention of smear samples.

   i. Pocket dosimeters and (if time permits) the team members' personnel dosimeters (film badge or TLD).

   j. Survey forms (Forms 69-9315 and 69-9316 preferred, but Form 69-9259 is also okay).

   NOTE 1: It is highly desirable to take a radio if time permits. All but the radio, film badge and alpha survey meter are located in the various emergency kits. Preferably, an entire kit should be taken to the scene. Radios are available in the Security Building, Emergency Operations Facility and Mobile Radiological Van.

   NOTE 2: If criticality is a possibility (i.e., if fuel is submerged in water) a neutron dose rate meter (such as the PNR-4or5) could be taken if readily available. This instrument is not necessary, however, since gamma radiation always accompanies a criticality.

3. Close out with a verbal summary to offsite authorities in step 1 above. If classified as an Unusual Event, follow with a written summary to NRC within 24 hours.

INSTRUCTIONS FOR MONITORING TEAM

1. Make gamma dose rate measurements since this is the most likely hazard. If any significant gamma dose rate is measured, erect a barrier so that all locations where the dose rate is greater than or equal to 5 mR/hr are located within it. Hang Radiation Area signs as appropriate.

   NOTE: Members of the general public, not participating in the recovery effort, should be kept at a distance beyond the 0.6 mr/hr isodose line by an appropriate barrier.

2. Make a direct alpha and/or beta-gamma survey, as appropriate, of the ground and the surfaces for the container if contamination is a possibility. If contamination is found, above the specified limits, erect a barrier around all areas where the contlevel is the most restrictive of the following:

   a. 100 dpm/100 cm^2 if Pu-239 may be present.

   b. 1000 dpm/100 cm^2 if Pu-239 is not present but uranium, I-131 or Sr-90 may be present.

   c. 5,000 dpm/100 cm^2 if none of the above are likely to be present in significant quantities.

   The survey is made by holding the probe within 1/2 inch of the surface without actual contact. The net count rate is converted to dpm/100 cm^4 by the following formula:

$$[\text{dpm}/100\ \text{cm}^2] = \frac{(CR_{net})}{\text{epsilon}_i}$$

where:

CR_{net} = net cpm on instrument

= $(cpm)_{gross,\ shield\ off} - (cpm)_{background}$

$epsilon_1$ = probe efficiency factor from Table 1

NOTE 1: The alpha probe is sensitive to sunlight. Therefore, shield the probe to the extent practical.

NOTE 2: It is not necessary to erect barriers for both contamination and dose rate. Just erect the one which keeps persons farthest from the source and place both types of signs on it.

3. If significant contamination is found in Step 2 above, smear samples can be taken to determine whether smearable contamination is present. If alpha contamination is likely, use 2" filters for taking the smears. Retain all smear samples for subsequent laboratory analysis.

   Count the samples and determine the [dpm/100 cm^2] in accordance with the following formula:

$$[dpm/100\ cm^2] = \frac{(0.11)(CR_{net})}{(epsilon_2)\ (A)}$$

where:

(CR_{net}) = net cpm as above

$epsilon_2$ = probe efficiency factor from Table 1

A = area smeared (ft^2)

4. If criticality or fuel melting is a possibility, erect barriers at least 100 yards from the scene.

   NOTE: A criticality is accompanied by a blue flash which is visible even when a person is not looking at the source.

5. Obtain liquid samples if it appears liquid contamination is a problem. These should be labeled and returned to the lab.

6. Report in to the Site Emergency Coordinator at least once per hour and determine the meteorological conditions.

7. Maintain exposure as low as reasonably achievable. Do not exceed any normal exposure limit without authorization of the Site Emergency Coordinator. Try to prevent any unbadged person from receiving more than 250 mrem.

8. Advise state and/or local officials of methods which could be used to contain the spread of contamination or minimize the radiation field. These may include the use of wood or metal sheets, plastic or cloth tarpaulins, firefighting foam or dirt berms and rocks.

9. Advise and assist in the treatment of any injured and/or contaminated personnel using the techniques specified in the Radiation Control Standards and Emergency Procedures.

ATTACHMENTS

1. Form 69-9221, "Emergency Notification Record"

2. Form 69-9315, "Contamination Survey Record"

3. Form 69-9316, "Radiation Dose Rate Survey Record"

4. Form 69-9259, "Emergency Environmental Monitoring Field Data Sheet"

SUPPORTING PROCEDURES

EP G-2 Establishment of the Onsite Emergency Organization
EP G-3 Notification of Offsite Emergency Organizations
EP R-1 Personnel Injury (Radiologically Related) and/or Overexposure.
EP RB-4 Access to and Establishment of Controlled Areas Under Emergency Conditions.
RCP G-6 Release of Materials from Controlled Areas.
EP RB-6 Area and Equipment Decontamination.

TABLE 1

PROBE EFFICIENCIES FOR SURVEY INSTRUMENTS

PROBE	EPSILON[1] (direct survey) (cpm/dpm/100 cm^2)	EPSILON[2] (smear) (cpm/dpm)
HP-240	0.011	0.018
HP-260	0.040	0.20
HP-210	0.040	0.18
HP-230A	0.0029	0.016
Alpha	0.056	0.095

APPENDIX Z

EMERGENCY PROCEDURE NOTIFICATION INSTRUCTIONS

1. When this emergency procedure has been implemented, and upon direction from the Shift Foreman, proceed as follows:

   a. Notify the following plant staff personnel, or their designated alternates:

      Plant Manager
      Plant Superintendent
      Supervisor of Chemistry and Radiation Protection
      Power Plant Engineer
      Supervisor of Operations
      Technical Assistant to the Plant Manager

   b. Report the situation to the County Sheriff's Office and California Office of Emergency Services. They may already be aware of the situation, so this may be a courtesy call.

   c. If the shipment originated or had a distinction at the plant, designate this event a Notification of Unusual Event. Notify plant staff and response agencies required by Emergency Procedures G-2 "Establishment of the Onsite Emergency Organization" and G-3 "Notification of Offsite Organizations" in accordance with Emergency Procedure G-1 "Accident Classification and Emergency Plan Activation."

2. In addition to any notifications performed under 1 above, also notify the following company personnel:

   a. Supervising Nuclear Generation Engineer (Personnel and Environmental Safety):

      Mr. W.H. Fujimoto
      PGandE office
      Office
      Home [redacted]

      NOTE: If the above cannot be promptly reached request the system dispatcher to contact alternate personnel.

b. Los Padres District Manager:

Mr. D.L. Kennady
Office
Office
Home
[redacted]

NOTE: If the above cannot be promptly reached request Morro Bay Switching Center to contact alternate personnel.

69-9221 3/82 (100)

DEPARTMENT OF NUCLEAR PLANT OPERATIONS
DIABLO CANYON POWER PLANT

EMERGENCY NOTIFICATION RECORD

EMERGENCY IDENTIFICATION ______________________________ DATE ____________ SHEET ______

PERSON CALLED	AFFILIATION	TIME	REACHED	BY	MESSAGE GIVEN	RESPONSE

69-9315 7/80 (100)

DEPARTMENT OF NUCLEAR PLANT OPERATIONS
DIABLO CANYON POWER PLANT
CONTAMINATION SURVEY RECORD

DATE _____ TIME _____ SWP/RWP NO. _____ SURVEY NO. _____

AREA OR EQUIPMENT _____

DIRECT SURVEY RESULTS

ITEM DESCRIPTION	TYPE		INST. AND S/N	DETECTOR USED	GROSS CPM	BKG CPM	NET CPM	EFFI-CIENCY	$\frac{dpm}{dm^2}$
	α	βγ							

REMOVABLE CONTAMINATION SURVEY RESULTS

INSTRUMENT USED

ITEM DESCRIPTION	TYPE		AREA, dm^2	COUNT TIME	TOTAL COUNTS	GROSS cpm	BKG cpm	NET cpm	EFFI-CIENCY	$\frac{dpm}{dm^2}$
	α	βγ								

COMMENTS _____

SURVEYED BY _____ COUNTED BY _____ DATE/TIME _____

REVIEWED BY _____ DATE _____
SUPERVISOR

69-9316 7/80 (100)

DEPARTMENT OF NUCLEAR PLANT OPERATIONS
DIABLO CANYON POWER PLANT

RADIATION DOSE RATE SURVEY RECORD

DATE _____ TIME _____ SWP/RWP NO _____ SURVEY NO. _____

AREA OR EQUIPMENT _____

TYPE OF SURVEY _____ SHEET ___ OF ___

ITEM NO.	DESCRIPTION	BETA		GAMMA		NEUTRON	
		m rad/hr	distance	mR/hr	distance	mrem/hr	distance

SURVEYED BY _____

SURVEY TYPE	INSTRUMENT	TYPE DETECTOR	SERIAL NO.	DATE CALIB. DUE
BETA				
GAMMA				
NEUTRON				

COMMENTS _____

RECOMMENDATIONS _____

SURVEY REVIEWED _____ DATE _____
SUPERVISOR

PACIFIC GAS AND ELECTRIC COMPANY
NUCLEAR PLANT OPERATIONS
DIABLO CANYON POWER PLANT UNIT NOS. 1 AND 2

EMERGENCY ENVIRONMENTAL MONITORING FIELD DATA SHEET

Team _____ Leader _____ Member _____

Monitoring Location _____

1. THREE FOOT BETA-GAMMA RADIATION FIELD READINGS

a. Count Rate

Calibration Due Date _____

Time	Type of Probe	CPM[Shield off(UP)] Gross	BKG*	Net	CPM[Shield on(down)] Gross	BKG*	Net

b. Dose Rate

Calibration Due Date _____

Time	Instrument	mR/hr(Window Open) Gross	BKG*	Net	mR/hr(Window Closed) Gross	BKG*	Net

c. Integral Dose

Instrument	① Time Started	② Time Complete	③ Duration(HR) ②-①	④ Total Dose(mR)	⑤ Dose Rate(mR/hr) ④ ÷ ③

2. AIR SAMPLE DATA

Calibration Due _____

Sampler	Time Started	Time Completed	Duration (Minutes)	Flow Rate (CFM)	Sample Volume (FT^3)

3. PARTICULATE DETERMINATION

Type of Probe	Gross	CPM(Shield off) BKG*	① Net	② E_3	③ E_4	④ Volume(FT^3)	$\frac{① \times 1.59 \times 10^{-11}}{② \times ③ \times ④}$ ($\mu Ci/ml$)

4. IODINE DETERMINATION

Type of Probe	Gross	CPM(Shield Off) BKG*	① Net	②	③ E_c	④ Volume(FT^3)	$\frac{① \times 1.59 \times 10^{-11}}{② \times ③ \times ④}$ ($\mu Ci/ml$)

*NUMERICAL VALUE FOUND IN EMERGENCY PROCEDURE RB-7 OR RB-8

5. ENVIRONMENTAL MONITOR READINGS

a. PIC Reading — Calibration Due _____

Time	Dose Rate (mR/hr)

b. TASC-4 Reading Calibration Due _____

① Scaler Count	② Count Time (Sec)	① ÷ ② (mR/hr)

6. GROUND SURVEYS

Time _____

Description	Probe	Gross	CPM (Shield off) BKG*	Net ①	② ϵ_1	① x ② (uCi/ml)

7. VEGETATION SAMPLES

NOTE: USE HP-240 OR EQUIVALENT PROBE

Time _____

Description	Gross	CPM (Shield off) BKG*	Net ①	① x 2.5×10^{-5} (uCi/ml)

8. SMEAR SAMPLES

Time _____

Description	Probe	Gross	BKG*	Net ①	② ϵ_3	3 Area Smeared (Ft^2)	$\frac{0.11 \times ①}{② \times ③}$ (uCi/dm^2)

9. LIQUID SAMPLES

Time _____

Description	Volume of Sample Counted	Gross CPM	Immersion Data BKG*	Net CPM

10. REMARKS

PG&E **Pacific Gas and Electric Company**

DEPARTMENT OF NUCLEAR PLANT OPERATIONS

DIABLO CANYON POWER PLANT UNIT NO(S) 1 AND 2

NUMBER	EP M-1
REVISION	11
DATE	12/29/83
PAGE	1 OF 5

TITLE EMERGENCY PROCEDURE
EMPLOYEE INJURY OR ILLNESS (NONRADIOLOGICAL)

APPROVED R C Thornberry PLANT MANAGER 3-5-84 DATE

SCOPE

This procedure describes the actions which are to be taken in the event of an illness or injury to an employee which does not involve radioactive contamination or overexposure. Injuries in which radiological considerations are involved are discussed separately in the R series of Emergency Procedures. This procedure and changes thereto requires PSRC review.

APPLICABILITY

This procedure is to be followed for incidents involving Nuclear Plant Operations personnel, or other company employees at the plant site at the request of the Nuclear Plant Operations Department. In the event of an incident involving any other company employee (such as a General Construction Employee), perform only the asterisked (*) steps in this procedure.

IMMEDIATE ACTIONS

The employee(s) who are at the scene shall:

*1. Render all necessary first aid.
*2. Notify the control room (Shift Foreman) as soon as practical.

NOTE: The Shift Foreman may be notified by dialing [Ext. [redacted]] [redacted] Dialing [redacted] activates the fire alarm and medical emergency code call. The caller must remain on the phone to enable the Shift Foreman to dial into a conference call.

SUBSEQUENT ACTIONS

The Shift Foreman shall direct all subsequent actions until relieved by the long term Site Emergency Coordinator if the emergency warrants it. Such actions should include the following:

*1. Sound emergency signal, code override, or other general warning signal to clear the area if the situation warrants it.

*2. Dispatch additional first aid personnel such as the project construction EMT (Extension [redacted]) to the scene of the injury or illness if required. Personnel who have not been instructed to provide assistance at the scene should remain on their jobs and stay clear of the affected area.

*3. Transport the injured person to a Company panel physician or hospital if the situation warrants it (refer to the attached list). If possible, the employee is to be accompanied by a supervisor. The practices which are to be followed if this step is necessary are given in the following section of this procedure.

4. Secure the names and addresses of all witnesses (both Company and non-Company).

*5. Perform the notifications required by Appendix Z.

6. Complete the appropriate accident report(s) and forward to the office supervisor for processing.

   a. Form 62-4587, "Report of Industrial Injury to Employee" in cases where no medical treatment was required other than minor first aid at the plant.

   b. Form 62-4586, "Employer's Report of Occupational Injury of Illness" in all cases requiring medical treatment (including doctor referral) other than first aid or results in lost time beyond the day of injury.

   c. Form 62-5542, "Report of Automobile Accident" if appropriate.

TRANSPORTATION OF INJURED PERSONNEL

1. The preferred mode of transportation for injured persons is by Company panel ambulance service. Company or private vehicles should only be used in cases where the delay associated with securing an ambulance might result in significant deterioration of the injured person's condition, or when the injury is of a minor nature where use of an ambulance is not warranted.

2. When requesting ambulance service (refer to the attached list), provide the following information to the ambulance service.

   a. Name of caller

   b. Company affiliation

   c. Phone number of caller (where he can be reached)

   d. Name of injured or ill person

   e. Where the patient is located

   f. Where the patient is to be transported

   g. Nature of injury or illness

   h. Any other medical information which might be pertinent to transporting the injured person

   Record this information on Form 69-9221, "Emergency Notification Record", or other log.

*3. If ambulance or medical personnel are to enter the site, contact the Security Department [redacted] and have them notify the security force at the Port San Luis entrance. It is necessary to have an escort accompany the ambulance personnel from the Security Building to the patient.

4. If possible, have a supervisor accompany the injured person to the hospital (or doctor's office). If this is not practical, call a supervisor and have him meet the patient at the hospital (or doctor's office). The supervisor should inform the doctor about the Company's light duty program.

5. If possible, call ahead to the hospital (or doctor) and provide the following information:

   a. Name of caller

   b. Company affiliation

c. Phone number of caller (where he can be reached)

d. Name of injured or ill person

e. Age of injured or ill person (approximate if not known)

f. Extent of injury, illness or symptoms

g. Medical history (if known)

h. Radiological conditions.[1]

Record this information on Form 18-9221, "Emergency Notification Record", or other log.

6. A medical referral, Form 62-6015, shall be completed and sent to the hospital (or doctor) with the injured person along with a copy of the Light Duty Program Letter (copy attached). These forms should be taken by the accompanying supervisor, the patient, or the ambulance driver, as appropriate. Do not delay transport of seriously ill or injured persons while obtaining these forms.

REFERENCES

1. Rule 16, PGandE Accident Prevention Rules.

2. PGandE Standard Practice 250.

3. NRC Information Notice 80-06, "Notification of Significant Events."

ATTACHMENTS

1. Form 62-4587, "Report of Industrial Injury to Employee"

2. Form 62-4586, "Employer's Report of Occupational Injury or Illness"

---

[1] If the injury or illness is involved with radiation, see "R" Emergency Procedures. However, the hospital should also be informed when radiation is not involved, because in the absence of such knowledge, they will assume that radiation is involved.

3. Form 62-6015, "Medical Referral"
4. Form 62-4542, "Report of Automobile Accident"
5. Form 69-9221, "Emergency Notification Record"
6. Light Duty Program Letter
7. Company Panel of Physicians, Ambulance, and Hospitals serving the immediate area around Diablo Canyon.
8. Panel of Physicians, Ambulances and Hospitals, Coast Valley Division, SP 251.1-1.
9. Safety, Health and Claims Personnel to be contacted for Reporting of Injuries at Diablo Canyon.
10. Appendix Z, Emergency Procedure Notification Instructions

62-4587 Rev. 1/79

PACIFIC GAS AND ELECTRIC COMPANY

Report of Industrial Injury to Employee

1. Name _____ 6. Division _____

2. Address _____ ZIP _____

3. Telephone No. _____ 7. Department _____

4. Social Security No. _____ 8. Date of Accident _____

5. Occupation _____ 9. Time of Accident _____

10. Location of Accident _____ 11. Nature of Injury _____

12. What were you doing and how did accident occur? _____

_____

_____

13. Describe First Aid rendered: _____

14. Witnesses to accident:

1. _____

2. _____

3. _____ 15. _____
Signature of Employee

16. Date injury reported: _____

17. Date 30 days elapses: _____ 18. _____
* See Over Signature of Supervisor

INSTRUCTIONS: This report (Items 1 thru 15) should be *written* and *signed* by the *employee personally* and countersigned by the supervisor. It is for all industrial injuries and is in duplicate. The original is to be retained for Company records; the copy is to be detached after completion and given to the employee. Before signing in Item 18, the *supervisor* should fill in the date of the report (Item 16) and compute and notate the date *30 days* from the date the injury was reported (Item 17).

If the employee later requires treatment by a doctor or becomes disabled, Form 62-4626 must be prepared and forwarded to the Safety, Health and Claims Department *IMMEDIATELY* accompanied by the original of this report.

If the employee is unable to fill out or sign this report, it should be prepared, signed by the supervisor and the employee should be given a copy within 5 days as required by law.

If the injured employee cannot write English, the report may be made according to a verbal statement. If necessary, the employee may sign by a mark and a witness to the report should sign below the employee's mark.

If you want to exercise your rights under item III of the information section, please separate this page and present it to your selected physician.

§ 9785. Duties of the Employee-Selected Physician. The physician or facility chosen by the employee who undertakes to provide treatment pursuant to Labor Code Section 4600 shall:

(a) Within 3 working days after undertaking to provide such treatment notify the employer of the name and address of such treating physician or facility, and

(b) Within 5 working days following initial examination shall submit a written report to the employer to include:

(1) The name and address of injured employee;

(2) The employee's medical history as obtained by the physician;

(3) Findings on examination;

(4) The subjective complaints reported by the employee;

(5) The planned course, scope and duration of treatment;

(6) If appropriate, the estimated return-to-work date;

(7) An opinion as to whether residual permanent disability is to be anticipated and, if possible, an estimate of its extent;

(8) An opinion as to whether the employee will eventually be able to engage in the occupation being performed at the time of injury.

(c) At reasonable intervals during active treatment submit progress reports to the employer and, periodically, report promptly to the employer when:

(1) The employee's condition permits return to work;

(2) The employee's condition requires him or her to leave work;

(3) Hospitalization or surgery is indicated or recommended;

(4) The employee's condition becomes permanent and stationary;

(5) The employee's condition undergoes a previously unanticipated significant change. This report shall contain a statement of the proposed course of treatment resulting, if any, by this change;

(6) The employee is referred to another physician for consultation;

(7) The employee reasonably requests additional appropriate information.

PACIFIC GAS and ELECTRIC COMPANY

Employer's Report of Occupational Injury or Illness

CONFIDENTIAL – For Use by Company Attorneys

DIVISION
GENERAL OFFICE OR
GENERAL CONSTRUCTION

LOCAL OFFICE

ACCIDENT REPORT NUMBER

PACIFIC GAS AND ELECTRIC COMPANY
77 BEALE STREET, SAN FRANCISCO, CA

PUBLIC UTILITY – Gas & Electric

5. 102 - 2799

PLEASE DO NOT USE THIS COLUMN

9. ☐ MALE ☐ FEMALE

$ ☐ PER WEEK ☐ PER MONTH

YEARS

15. ☐ YES ☐ NO

24. ☐ YES ☐ NO

HOURS

25. ☐ YES ☐ NO

26. ☐ YES ☐ NO

Filing of this report is not an admission of liability. No report of injury required to be filed by an employer or insurer by this chapter shall be admissible in evidence in any adversary proceeding before the Workmen's Compensation Appeals Board."

Labor Code, Section 6412

PACIFIC GAS & ELECTRIC COMPANY

OFFICIAL POSITION: Mgr., Safety, Health & Claims Dept.

TELEPHONE: 781-4211 EXTENSION: 3171

Report # _____ Date _____, 19___

Dr. _____

Kindly give to bearer

Mr. Ms. _____

medical attention, and forward a complete detailed report immediately to Manager, Safety, Health and Claims Dept., 245 Market Street, San Francisco, 94106. Your bills should be itemized and all bills and reports rendered in triplicate.

PACIFIC GAS AND ELECTRIC COMPANY

By _____ "C" _____

Mgr. – Foreman – Supt.

62-4611 (REV 3/80)

PLEASE COMPLETE AND RETURN TO EMPLOYEE

(EMPLOYEE MUST HAVE COMPLETED CARD TO RETURN TO WORK)

Pacific Gas and Electric Co.. Date _____, 19___

Mr., Ms. _____

Occupation _____ Report # _____

Employed By _____ "C" _____ Division.

Injured at _____ a.m. p.m. on _____, 19___

☐ Return to full work immediately _____

☐ Modified work until _____

☐ Unable to work until _____

☐ Restrictions or limitations _____

☐ Return Appt. Date: _____ Time: _____

☐ Discharged from treatment _____

Signed _____ M.D.

Report # _____ Date _____, 19___

Dr. _____

Kindly give to bearer,

Mr./Ms. _____

medical attention, and forward a complete detailed report immediately to Manager, Safety, Health and Claims Dept.,245 Market Street, San Francisco,94106. Your bills should be itemized and all bills and reports rendered in triplicate.

PACIFIC GAS AND ELECTRIC COMPANY

By _____ RC # _____

62-4615 (REV. 5/80) Mgr. – Foreman – Supt.

PLEASE COMPLETE AND RETURN TO EMPLOYEE

(EMPLOYEE MUST HAVE COMPLETED CARD TO RETURN TO WORK)

Pacific Gas and Electric Co.: Date _____, 19___

Mr./Ms. _____

Occupation _____ Report # _____

Employed By _____ RC # _____ Division.

Injured at _____ a.m./p.m. on _____, 19___

☐ Return to full work immediately _____

☐ Modified work until _____

☐ Unable to work until _____

☐ Restrictions or limitations _____

☐ Return Appt. Date: _____ Time: _____

☐ Discharged from treatment _____

Signed _____ MD.

Confidential

For Use by Company Attorneys Only

REPORT OF AUTOMOBILE ACCIDENT

FORWARD REPORT TO

ACCIDENT REPORT NUMBER

Alpha | Year | Seq. Number | Div. Loc.

(1) OTHER DRIVER

Name

Address (Street, City, State)

Phone No. ☐ Male ☐ Female

Date of Birth | Operator's Lic. No. | State

Insurance Company

(2) OTHER VEHICLE OR PROPERTY OWNER

Name

Address | Phone No.

Vehicle: Make | Type | Year | Lic. No. | Color

(3) PASSENGERS IN OTHER VEHICLES, WITNESSES, OR INJURED PERSONS

	NAME	ADDRESS	PHONE No.	PASSENGER	WITNESS	INJURED OR DECEASED
1				☐	☐	☐
2				☐	☐	☐
3				☐	☐	☐
4				☐	☐	☐
5				☐	☐	☐
6				☐	☐	☐

(4) PASSENGERS IN COMPANY VEHICLE

	NAME	ADDRESS	PHONE No.	EMPLOYEE YES	EMPLOYEE NO	INJURED OR DECEASED
1				☐	☐	☐
2				☐	☐	☐
3				☐	☐	☐
4				☐	☐	☐

(5) DATE, TIME AND LOCATION OF ACCIDENT

On (Date) at (Time) Hours. On (Street or nurst highway)

at near (Intersecting street, house number or highway location) In (City or County, State)

(6) DESCRIPTION OF ACCIDENT

Complete details of how accident occurred

Other vehicle was ☐ stopped ☐ moving (Direction) on (Street) at (Speed)

Company vehicle was ☐ stopped ☐ moving (Direction) on (Street) at (Speed)

(If necessary, use additional sheet to complete story)

Describe weather, road and light conditions

Number of seat belts in Company vehicle | Number of seat belts in use at time of accident

Indicate which investigating agency will prepare a report: ☐ CHP ☐ Sheriff ☐ City Police ☐ None ☐ Other

(7) VEHICLE & PROPERTY DAMAGE

DESCRIBE DAMAGE TO Other Vehicle(s) or Property | Cost if known $ | or estimate: ☐ Under $ ☐ Over $ ☐ Over $

DESCRIBE DAMAGE TO ☐ Company Vehicle ☐ Lessee Rental Vehicle ☐ Personal Vehicle | Cost if known $ | or estimate: ☐ Under $ ☐ Over $ ☐ Over $

Were photos taken of accident scene and damage? ☐ Yes ☐ No

(8) COMPANY DRIVER & VEHICLE INFORMATION

Company Driver | Home Address | Company Phone No.

Age | Occupation | Reporting to Local Office at

Cal. Driver's Lic. No. | Class | Expiration Date

Division or G.O. Dept. | District | Department

Vehicle No. | Lic. No. | Lic. No. | Type | Year | Odometer Reading

Driver's Signature

Date of this report 19 | Countersigned (Mgr., Supt., Gen. Foreman, etc.) | Company Phone No.

LOCATION OR ITEM NO. | ACCOUNT NO. | JOB IN PROGRESS AT TIME OF ACCIDENT ☐ Y ☐ N ☐ D & C | JOB NO. | SUBLET TO OTHER REPAIRS W ☐ M ☐ D & C | A.C. NO.

69-9221 3/82 (100)

DEPARTMENT OF NUCLEAR PLANT OPERATIONS
DIABLO CANYON POWER PLANT

EMERGENCY NOTIFICATION RECORD

EMERGENCY IDENTIFICATION _____ DATE _____ SHEET _____

PERSON CALLED	AFFILIATION	TIME REACHED	BY	MESSAGE GIVEN	RESPONSE

PACIFIC GAS AND ELECTRIC COMPANY

PG&E —

DIABLO CANYON POWER PLANT
P.O. Box 56 Avila Beach California 93424 (805) 595-7301

[illegible]

Dear Dr.

Thank you for being one of our panel physicians that treat our employees. Our primary goal is to provide employees who sustain industrial injuries requiring medical attention with prompt, first-class treatment. Your assistance in this endeavor is appreciated.

There is an area of concern to us. While the number of employees that require treatment by a physician has remained stable or in some cases declined, the number of disabling injuries requiring time away from work, i.e., lost time injuries, has dramatically increased.

We believe that some of this time away from work might possibly be avoided if the availability of light (modified) duty or desk-type work were more widely known. Some physicians have stated that in some cases the patient will respond more rapidly to treatment if kept busy in a light-duty capacity. Productive, light-duty assignments are almost always available for employees released for work within the medical restrictions established by the physician.

It is our policy to have an injured employee accompanied by a supervisor or other representative on the first doctor's visit. Should there be any question about the availability or type of light duty that can be provided, he or she will be able to answer for us.

Our employees' welfare is our main concern. Should you have any questions about our program, I will be glad to call on you at your convenience.

Sincerely,

R. C. THORNBERRY

RCT:kgs

11/83

DEPARTMENT OF NUCLEAR PLANT OPERATIONS
DIABLO CANYON POWER PLANT

Company Panel of Physicians, Ambulances, and Hospitals
Serving the Immediate Area Around Diablo Canyon*

Ambulance[2]

Name	Address	Phone	Remarks
San Luis Ambulance Service			Radiation Exposure Patients
Five Cities Ambulance Service			
South Bay Fire/Ambulance			
Bay Ambulance			

CENTRAL DISPATCH FOR ALL OF THE ABOVE AMBULANCE SERVICES

Hospitals

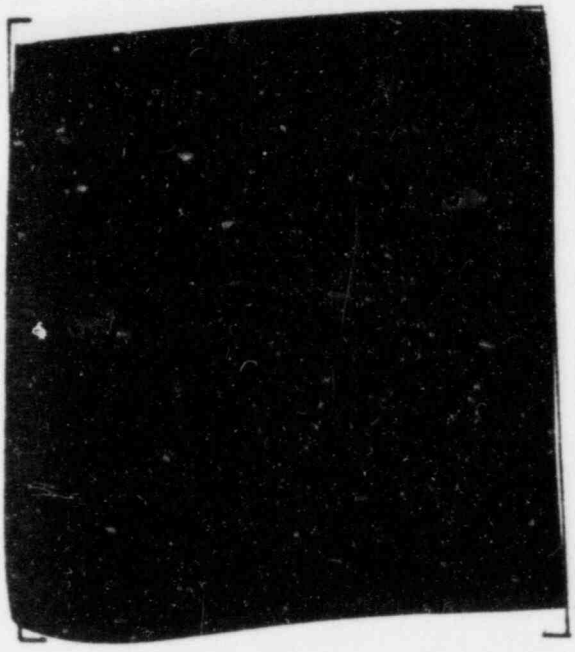
French Hospital			Radiation Exposure Patients-External Defib. Equip.
**Sierra Vista Hospital (20 minutes to clear for helicopter)			External Defibrillation Equipped
Arroyo Grande Community Hospital and Medical Center			External Defibrillation Equipment

DC0152 6VII

Physicans

San Luis Medical Clinic

*Richard E. Fleming	Industrial Injury Treatment and Eye Injuries
T. A. Beresky	Eye Injuries
*David W. Ralston	Industrial Injury and Preemployment Physical Exams
Laurence H. Lotz	Industrial Injury and Preemployment Physical Exams



1. This list extracted from Standard Practice No. 251.1-1, Panel of Physicians, Ambulances, and Hospitals, Coast Valleys Division, dated 9/29/83.

2. See also EP OR-1 "Offsite Support and Assistance" for Air Ambulance and Medical Support.

*Willing to fly
**Helicopter landing facility available

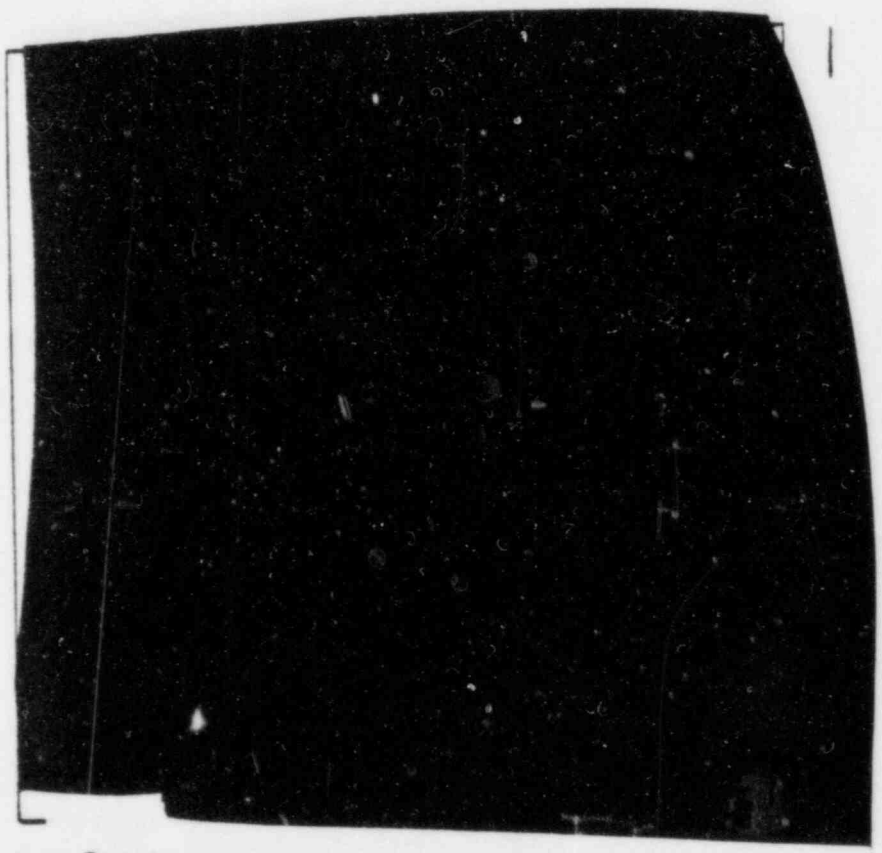
PACIFIC GAS AND ELECTRIC COMPANY
SAFETY, HEALTH, AND CLAIMS DEPARTMENT

PANEL OF PHYSICIANS, AMBULANCES, AND HOSPITALS

COAST VALLEYS DIVISION

• SP 251.1-1

TOWN	ADDRESS	TELEPHONE	SERVICE
ARROYO GRANDE			
Five Cities Ambulance Service CENTRAL DISPATCH			
A.G. Community Hospital and Medical Center			
ATASCADERO			
Doctors			
North County Medical Services (Emergency Medical Technician) CENTRAL DISPATCH			
Twin Cities Community Hospital			
BAYWOOD PARK - LOS OSOS			
South Bay Fire/Ambulance CENTRAL DISPATCH			



I - Industrial Injury Treatment
E - Preemployment Physical Examinations
EYE - Eye Injuries
PM - Paramedic Services
"DEF" - Hospital Equipped with External Defibrillators
* - Willing to Fly
** - Helicopter Landing Facility Available
RAD - Radiation Exposure Incidents

TOWN	ADDRESS	TELEPHONE	SERVICE
CAMBRIA			
Cambria Ambulance Service			Ambul
CENTRAL DISPATCH			Ambul
CARMEL			
Red Cross Ambulance			Ambul
Community Hospital of the Monterey Peninsula			Hosp DEF
CARMEL VALLEY			
C. Winter Van Horn			I-E
Paulino E. Tocchet			I-E
CASTROVILLE			
Joseph L. Kirch			I-E
Bert Clair Eliason			I-E
HOLLISTER			
N.L. Currie			I-E
Martin M. Bress			I-E
Stephens & Poletti Ambulance			Ambul
Hazel Hawkins Hospital			Hosp DEF
KING CITY			
Duane F. Hyde			I-E
South County Ambulance			Ambul
George L. Mee Memorial Hospital			Hosp DEF

TOWN	ADDRESS	TELEPHONE	SERVICE
LOMPOC			
Community Ambulance Service			Ambul
Lompoc Hospital District			Hosp DEF
LOS OSOS			
South Bay Fire Department/Ambulance CENTRAL DISPATCH			Ambul
MONTEREY			
W.A. Carnazzo			I-E
Nello P. Torri			I-E
Howard Press			I-E
John J. D'Attilio			Eye
George S. Campion			Eye
Eskaton Health Care Center (24-hour Emergency Service)			Hosp DEF
Peninsula Community			Hosp DEF
MORRO BAY			
Bay Ambulance			Ambul

TOWN	ADDRESS	TELEPHONE	SERVICE
PASO ROBLES			
*Stanley J. Kirk Physicians' Exchange			I-E
Professional Ambulance Service CENTRAL DISPATCH			Ambul Ambul
Twin Cities Hospital			Hosp DEF
SALINAS			
W.H. Lawler, Jr.			I-E
Howard C. Miles Glenn H. Smith E.O. Dong Robert Avila			I-E Eye Eye I-E
A-1 Ambulance Service			Ambul
Salinas Valley Memorial Hospital			Hosp DEF
Robert G. Van Horne			E
SAN LUIS OBISPO			
*Richard E. Fleming			I-E
T.A. Beresky			Eye
Laurence H. Lotz			I-E
SLO Medical Clinic			
San Luis Ambulance Service CENTRAL DISPATCH			Ambul RAD Ambul
French Hospital			Hosp DEF RAD
**Sierra Vista Hospital (20 minutes to clear for chopper)			Hosp DEF
David W. Ralston			I-E

DC0152 11VII

TOWN	ADDRESS	TELEPHONE	SERVICE
SANTA BARBARA			
St. Francis Hospital			Hosp DEF
SANTA MARIA			
Brian J. Kiniry			I
Jules Bertero			I-E
*Harry K. Lienke			I-E
*Donald E. Reiner			I
D.D. Shepard			Eye
Industrial Medical Group of			
Dr. Betty Suits Tibbs			I-E
Dr. William J. Tibbs			I-E
Ambulance Service			Ambul PM
Santa Maria Ambulance Service			Ambul
Police Department (For Emergency Only)			Ambul
Marian Hospital			Hosp DEF
Valley Community Hospital			Hosp
SOLEDAD			
Soledad Ambulance Service (County Emergency Services)			Ambul

TOWN	ADDRESS	TELEPHONE	SERVICE
SOLVANG			
F.A. Pedersen			I-E
W.B. Van Valin			I-E
Coast Ambulance Service			Ambul
Santa Ynez Valley Hospital			Hosp DEF
TEMPLETON			
Peter S. Davis			I-E
Willard Osibin			I-E
*R.A. Greenman			E
CENTRAL DISPATCH			Ambul
Twin Cities Hospital			Hosp DEF
WATSONVILLE			
*E.H. Eiskamp			I-E
P.K. Gilman			I-E
David E. Bushman			I-E
Douglas A. Liddicoat			Eye
W. Webb Wilson			Eye
A-1 Watsonville Ambulance			Ambul
**Watsonville Community Hospital			Hosp DEF

PACIFIC GAS AND ELECTRIC COMPANY
DEPARTMENT OF NUCLEAR PLANT OPERATIONS
DIABLO CANYON POWER PLANT UNIT NOS. 1 AND 2

Safety, Health and Claims Personnel to be Contacted for Reporting of Injuries at Diablo Canyon[1]

EMPLOYEE INJURIES

In all cases of serious employee injuries (for example, injuries involving hospitalization, electric contact, hernia, amputation, fractures, or injuries expected to result in lost time from work beyond the day of injury) or death, which occur while on the job, report should be made as follows:

During Working Hours:

T. B. Honey [redacted] PGandE local

(If Mr. Honey is not available, the person answering the telephone will take the message and notify Mr. Honey or any other parties necessary in the Safety, Health and Claims Department).

Any Other Time:

Report to one of the persons on the following list, trying each in order until one is contacted:

1.	T. B. Honey	Pinole
2.	A. Thomas	San Francisco
3.	C. B. Powell	San Francisco
4.	P. S. Benitez	San Rafael
5.	T. G. Scott	Oakland
6.	L. Lasagna	Albany
7.	C. W. Allen	San Francisco
8.	B. L. Wade	Larkspur
9.	J. A. Glimme	Danville
10.	J. C. Vocke	Lafayette
11.	W. A. Hutchison	San Carlos
12.	M. C. Dolan	Oakland
13.	M. W. Johnson	Walnut Creek
14.	R. W. Hall	Richomod
15.	I. M. Crawford	Hercules
16.	R. G. Schumaker	El Granada
17.	R. D. Fagg	San Rafael
18.	P. C. Boettcher	Moraga
19.	H. W. Reynolds	Sunnyvale
20.	B. P. Sadler	Belmont

[redacted]

[1]This listing extracted from Safety, Health, and Claims memo regarding Personnel to be Contacted for Reporting of Accidents, dated 01/13/83. Found in PG&E Standard Practices S.P.251-2.

Safety, Health and Claims Personnel to Be Contacted for Reporting of Injuries at Diablo Canyon

Non-Employee Injuries

C. O. Schreil, San Luis Obispo, [redacted] (office) (office) (home)

If he cannot be reached, contact one of the following in order of preference:

During working hours:

1. John C. Echols
2. Doug G. Keeler
3. George G. Perry (collection only)

[redacted]

After working hours on Monday through 8:00 a.m. on Friday, except holidays:

1.	John C. Echols	Pleasant Hill
2.	Douglas G. Keeler	Concord
3.	John C. Vocke	Layfayette
4.	Donald A. Rushton	San Mateo
5.	William H. Bingaman	Novato
6.	E. Anthony Giudici	San Carlos
7.	J. Alec McCorquodale	San Ramon
8.	Stanley W. Johnson	Fairfield
9.	George G. Perry (collection only)	Hayward
10.	Bruce P. Sadler	Belmont

[redacted]

After 5:00 p.m. on Fridays to 8:00 a.m. on Mondays and holidays:

Contact the Investigator delegated to stay on call for all emergencies. He may be reached through the System Dispatcher. If he is not available, the Dispatcher will follow the procedures for "After Working Hours."

ATTACHMENT 10

EP M-1

APPENDIX Z

1. When this emergency procedure has been implemented for injuries or illnesses occurring within the plant gate, and upon direction from the Shift Foreman, proceed as follows:

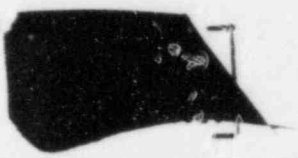
   *a. Notify the Plant Manager or his designated alternate.

   b. Notify the Compensation Claims Representative, Department of Safety Health and Claims, per the attached list of personnel.

   *c. Review the circumstances causing the injury or illness against the criteria for reports to NRC contained in Administrative Procedure C-11, Supplement 1, "Supplement 1 to Non-Routine Notification and Reporting to the NRC and Other Governmental Agencies," Appendix I.19, "Reporting of Significant Operating Events." If circumstances warrant, designate the event in accordance with the criteria contained in Procedure C-11.

   *d. Also notify the following if NRC is notified - Supervising Nuclear Generation Engineer (Personnel and Environmental Safety) or his alternate in the Department of Nuclear Plant Operation:

Mr. W. H. Fujimoto
PGandE
Plant Extension
Home



NOTE: If the above General Office person cannot be promptly reached, request the Systems Dispatcher to contact alternate personnel.

CURRENT

EMERGENCY PLAN

IMPLEMENTING PROCEDURES

TABLE OF CONTENTS

Volume 3B

03/26/84

PG&E
Nuclear Plant Operations
1/84

DIABLO CANYON POWER PLANT
PROCEDURE ON-THE-SPOT CHANGE

Procedure No. EP RB-2 Rev. 10 Unit No. 1 ☐ 2 ☐ 1 & 2 ☒

Title EMERGENCY EXPOSURE GUIDES

Type of Change: ☒ PERMANENT (green) ☐ TEMPORARY (yellow); Expiration Date _____

Requesting Department Chemistry & Radiation Protection Originator M. R. Creath

Proposed Change: (Does this alter the intent of original procedure? ☐ Yes ☒ No)
(Does it constitute an unreviewed safety/environmental question? ☐ YES ☒ NO)

Page 2: Procedure Section 3.b.1)

Change to read: Two (2) direct-reading pencil dosimeters for whole body exposure:

1 - 100 or 50R range
1 - [redacted] - 5 R range.

Reason for Change:

Equipment update.

Authorizations: _____ (Plant Management Staff) _____ (Plant Management Staff w/SRO License) 2/23/84 Date

Is immediate distribution required? ☐ YES ☒ NO
If YES, originator must distribute to Control Room, Shift Foreman and QC.

Initial Distribution Made By: _____

List other initial distribution to Controlled Copy Holders of this procedure _____

IMMEDIATE CONCERN

Date Received by Document Control 2-24-84

PSRC Review and Plant Manager's approval 3-8-84 Date above *plus 14 days

PSRC/PUSI CHANGE REVIEW

Review Date _____

PSRC recommends approval ☐ Yes ☐ No

Plant Manager's Approval ☐ N/A

Meeting Number ☐☐ - ☐☐☐

FOLLOW-UP

Follow-up To Rejected On-the-Spot Change ☐ Additional Information ☐

Action Taken/Remarks:

DISTRIBUTION: ☐ Same as Original Procedure Distribution ☐ Others: _____ Please see additional sheets ☐

PG&E Pacific Gas and Electric Company

DEPARTMENT OF NUCLEAR PLANT OPERATIONS

DIABLO CANYON POWER PLANT UNIT NO(S) 1 AND 2

NUMBER	EP EF-5
REVISION	4
DATE	10/28/83
PAGE	1 OF 38

TITLE EMERGENCY PROCEDURE
EMERGENCY EQUIPMENT, INSTRUMENTS & SUPPLIES

IMPORTANT TO SAFETY

APPROVED R C Thornberry PLANT MANAGER 3-5-84 DATE

SCOPE

This procedure provides an inventory of emergency equipment, instruments, and supplies (both portable and fixed) with inspection frequencies.

This procedure and changes thereto require PSRC review.

PORTABLE EMERGENCY EQUIPMENT

1. Radiological Emergency Kits

The kits consist of three boxes each. Each box is clearly identified first by kit numbers, and second by box letter A, B or C. The contents of each emergency kit are given in Table 1. The contents of each box of an individual emergency kit can be found in the notebook of each box. In addition, protective clothing and shoe covers are located at the Energy Information Center and the DCPP Security Building for use in case personal effects are contaminated.

a. Location

Kit Nos. 1, 2 and 3 - PG&E San Luis Obispo Service Center Mobile Environmental Monitoring Laboratory (MEML) Garage

Kit Nos. 4 and 5 - Diablo Canyon Power Plant Security Building, Exit Foyer.

b. Use

The kits are available for use in case of a radiological emergency by a designated monitoring team composed of at least two individuals trained in emergency radiological monitoring. The team will be directed by the Control Room or TSC (onsite teams) or the EOF (offsite teams) as to which areas they will monitor. Other instructions are contained in the notebook of each kit.

c. Obtaining an Emergency Kit

1) Kits No. 1, 2 and 3 can be obtained by the designated monitoring teams from the PG&E San Luis Obispo Service Center, in the Mobile Environmental Monitoring Laboratory (MEML) Garage. The personnel dispatched to the MEML garage will generally consist of Chemistry and Radiation Protection Technicians (C&RP), the MEML Operators from PGandE Department of Engineering Research, and San Luis Obispo County Environmental Health Department Personnel.

NOTE: If the MEML garage is locked, personnel should not open the door without a burglar alarm defeat key available. The front door is the only access that has a 45 second time delay to permit use of the defeat key (see Figure 1). The defeat key is available from the plant if the DER personnel are not available. The DER personnel will be called out as part of the call-out list in Emergency Procedure EP G-2.

When PGandE personnel have reached the MEML garage, establish telephone contact with the Radiological Emergency (RERM) at the Emergency Operations Facility (EOF). The phone number is listed in Attachment 1. If the MEML garage is locked and access cannot be obtained from the DER personnel assigned to the van, then use the telephone in the division office building (see Figure 1).

NOTE: If the RERM cannot be reached at the EOF, then contact the Emergency Radiological Advisor (ERA) at the onsite Technical Support Center. The phone number is listed in Attachment 1.

If the RERM or the ERA require immediate deployment of the MEML and/or the field monitoring teams, and access to the garage is still not available, inform the RERM/ERA that access is not available and request the Cypher Pad Code that will open the door. Also, request the ERA to dispatch an individual from the plant to reset the alarm.

Call DCPP security to inform them the MEML garage will be entered, and that the alarm will be actuated. The phone number is listed in Attachment 1.

NOTE: When the alarm is actuated a loud electronic warbler will sound locally, until reset.

2) Kits No. 4 and 5 can be obtained by the designated monitoring teams from the site security building exit foyer (cabinet in northwest corner).

d. Surveillance Frequency

1) Kit inventory will be performed by the Chemistry and Radiation Protection Department annually and after each use. Form 69-9823-1, 69-9823-2, and 69-9823-3 are used to document the inventory.

2) Kit radiological instruments will be replaced or recalibrated quarterly in accordance with the normal practice established by the I&C Maintenance Department.

3) Dosimeter charger and flashlight batteries will be replaced quarterly.

2. Emergency Evacuation Kits

Each kit consists of a box, clearly identified. The contents of each emergency evacuation kit are given in Table 2. The contents of each box can be found on the inside cover of the box. In addition, two cases of protective clothing and two cases of shoe covers are stored near the evacuation kits for use in case personal effects are contaminated. Additional protective clothing is also available at the Energy Information Center.

a. Location

The two emergency evacuation kits are located in the Exit Foyer of the Plant Security Building.

b. Use

The kits are available for use in the event site evacuation is ordered by the Site Emergency Coordinator. The Evacuation Coordinator would then have the kits and clothing issued to the evacuation team leaders.

c. Obtaining an Emergency Evacuation Kit

The emergency evacuation kits can be obtained by going to the Exit Foyer located at the Plant Security Building, and removing them from the storage cabinet in the northwest corner of the foyer.

d. Surveillance Frequency

1) Kit inventory will be performed by the Chemistry and Radiation Protection Department annually and after each use. Form 69-9369 is used to document the inventory.

2) Survey meters and dose rate meters will be replaced or recalibrated quarterly in accordance with the normal practice established by the I&C Maintenance Department.

3) Dosimeter charger, bullhorn, calculator, and flashlight batteries will be replaced quarterly.

3. First Aid Supplies

a. Location

The location of first aid supplies are listed in Table 3.

NOTE: Not all first aid supplies are presently deployed at their locations. However, they will be in place by power ascension above 5%.

b. Surveillance

First aid supplies are inventoried monthly by the Support Services Organization.

4. Hospital Kits

Each kit consists of a box, clearly identified. The contents of each hospital kit are given on Table 4.

a. Location

The two hospital kits are located in the Exit Foyer of the Plant Security Building.

b. Use

The kits are available for use in the event an injury victim, involving radioactive contamination or overdose, is sent to an offsite location for treatment or decontamination.

c. Obtaining a Hospital Kit

The kits can be obtained by going to the Exit Foyer located at the Plant Security Building, and removing them from the storage cabinet in the northwest corner of the foyer.

d. Surveillance Frequency

1) Kit inventory will be performed by the Chemistry and Radiation Protection Department annually and after each use.

2) Survey meters and dose rate meters will be replaced or recalibrated quarterly in accordance with the normal practice established by the I&C Maintenance Department.

3) Dosimeter charger batteries will be replaced quarterly.

5. Respirators (Self-Contained Breathing Apparatus or SCBA)

a. Location

1) Eight SCBA units are maintained in the control room for shift fire brigade members.

2) Sixteen SCBA units are located in the fire brigade locker on the stairway landing above the 85' elevation between the turbine building and auxiliary building.

3) Five SCBA units and five 30-minute spare tanks are located at the Technical Support Center.

4) Two SCBA units are maintained on the east side of intake structure in two yellow cabinets.

5) Thirty SCBA units are maintained at or near Access Control for normal radiological use. Thirty 30-minute spare tanks are also maintained at this location.

6) Seven SCBA units are stored in the Auxiliary Building stairwell on the west side at the 90' elevation.

7) One SCBA unit is maintained at the Unit 2 Auxiliary Operator's Office.

8) Forty SCBA units and sixty-five 30-minute spare tanks will be stored in the turbine building.

b. Surveillance

1) SCBA units will be inspected by the Chemistry and Radiation Portection Department monthly.

2) The forty SCBA's stored in the turbine building will be inspected prior to use.

3) All SCBA units will be inventoried semiannually.

6. Portable Survey and Dose Rate Instruments

A variety of portable count rate and dose rate instruments are available at the plant for routine radiological monitoring, and also for use in emergencies, if necessary. The general types and approximate quantities of this equipment are summarized in Table 5 and 6. It should be noted that this list is intended only to be illustrative of the plant's capabilities; precise quantities and models of specific equipment may vary from time to time as conditions change, different products appear on the market, etc.
The equipment listed in the table is normally located at access control when not in use.

7. Post-Accident Sample Kit

The kit consists of two storage lockers, clearly identified. The contents of the lockers is given on Table 7.

a. Locations

1) 85' locker located in the turbine building elevator vestibule.

2) 115' locker located across the passageway from the IPLSS panel.

b. Use

The lockers are available for use in the event a high activity sample is anticipated from the post-accident sampling system.

c. Surveillance Frequency

Kit inventory will be performed by the Chemistry and Radiation Protection Department annually and after each use.

8. Protective Clothing

Protective clothing for normal and emergency use is located at access control and the laundry room. Other locations where clean protective clothing may be found are:

a. Plant warehouse

b. PGandE Energy Information Center

c. Operational Support Center (OSC)/DCPP Security Building Exit Foyer

d. Technical Support Center (TSC)

9. Mobile Environmental Monitoring Laboratory (MEML)

The following equipment is available in the MEML for use in routine and emergency environmental monitoring. Surveillance is performed in normal use.

a. NaI Detector

b. IGe Detector

c. HP 9845C Computer

d. Multichannel Analyzer

e. High-Volume Air Sampler

f. Pressurized Ion Chamber (3)

g. High-Pressure Gas Sampler

h. TLD Reader

i. Instrument-Grade Electric Generators

10. Plant Vehicles

Plant vehicles shall be inventoried by the Personnel and General Services Department. The plant vehicle list shall be updated annually. The plant vehicle list can be found in Table 8.

11. Radio Pagers

Radio pagers are assigned to selected positions of the emergency organization, as a convenience, for use when the on-call person for the position is not available at their normal telephone numbers. Normal pager assignments are given in Table 8.a. A group page and test message is given on the first of each month at about 8:00 p.m. to provide a check on pager operation.

FIXED EMERGENCY EQUIPMENT

1. Early Warning System

Testing and maintenance for the EWS Siren Units, listed in Table 9, shall be performed by Los Padres District personnel according to the following schedule:

a. Monthly: A test cancel signal will be initiated, counter readings will be taken and a visual inspection made.

b. Quarterly: The inside of the compressor and the control and receiver cabinets will be inspected, and the sirens will be growl tested.

c. Annually: A complete inspection of all major components, as well as lubrication and cleaning of the unit will be done.

EMERGENCY FACILITY EQUIPMENT

1. Control Room

Equipment available in the Control Room for radiological emergency assesment and communication and the surveillance performed on this equipment is listed in Table 10.

2. Technical Support Center (TSC)

Equipment available in the TSC for emergency assessment, communication and other emergency functions of the facility and the surveillance performed on this equipment is listed in Table 11.

3. Operational and Operations Support Centers (OSC)

Equipment available in the OSC for emergency functions and communications and the surveillance performed on this equipment is listed in Table 12.

4. Emergency Operations Facility (EOF)

Equipment available in the EOF for emergency assessment, communication and other emergency functions of the facility and the surveillance performed on this equipment is listed in Table 13.

5. Emergency Procedure Phone Numbers

Telephone numbers in the emergency procedures are verified quarterly by the emergency planning staff, using Form 69-9043.

FIGURES

1. MEML Garage Layout and Access

TABLES

1. Contents of Radiological Emergency Kits
2. Contents of Evacuation Kits
3. Locations of First Aid Supplies
4. Contents of Hospital Kits
5. Portable Count Rate Meters
6. Portable Dose Rate Instruments
7. Contents of Post-Accident Sample Kit
8. Plant Vehicle List

8a. Emergency Organization Radio Pagers

9. EWS Siren Locations
10. Control Room Emergency Plan Equipment

TABLES (continued)

ATTACHMENTS

FIGURE 1 GARAGE LAYOUT AND PHONE ACCESS

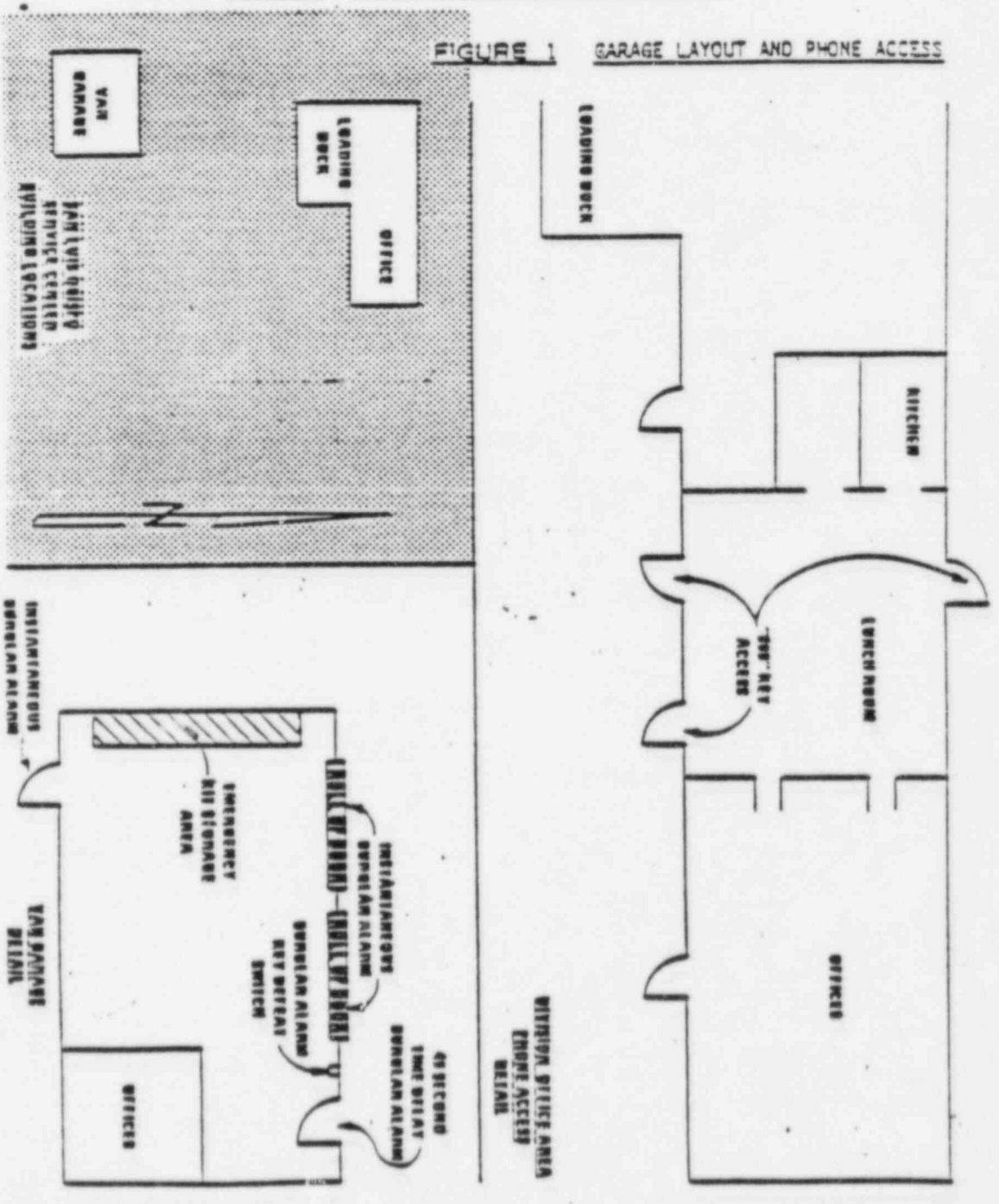


TABLE 1
CONTENTS OF RADIOLOGICAL EMERGENCY KITS

ITEM	QUANTITY KIT # 1	2	3	4	5
1. Instructions, Procedures and Supplies					
a. Instruction binder	1	1	1	1	1
b. Table of contents	1	1	1	1	1
c. Sanford Marking Pens	2	2	2	2	2
d. Red Marking Pens	2	2	2	2	2
e. Black Marking Pens	2	2	2	2	2
f. Ball Point Pens	2	2	2	2	2
g. San Luis Obispo County Map	1	1	1	1	1
h. Equipment Location Dwgs. (sets) Unit 1	1	1	1	1	1
i. Emergency Environmental Monitoring Field Data Sheet (Form 18-9259)	100	100	100	100	100
j. "Emergency Onsite Radiological Environmental Monitoring Program" EP RB-7	1	1	1	1	1
k. "Emergency Offsite Radiological Environmental Monitoring Program" EP RB-8	1	1	1	1	1
l. "Emergency Equipment, Instruments and Supplies" EP EF-5	1	1	1	1	1
m. Corporation Key (3A90909)	1	1	1	1	1
n. Information Center Key	0	1	0	1	1
o. Pocket Calculator	1	1	1	1	1
p. High Security Pin Tumbler Key (for PIC)	1	1	1	1	1
q. Record of Potassium Iodine Distribution, Form #18-9395	1	1	1	1	1
r. Computation paper (packet)	1	1	1	1	1

TABLE 1 (Continued)
CONTENTS OF RADIOLOGICAL EMERGENCY KITS

ITEM	QUANTITY KIT # 1	2	3	4	5
2. Monitoring Equipment*					
a. Dose Rate Meter (Rad Owl/ RO-2)	0	1	0	0	0
b. Dose Rate Meter (HPI-1010)	1	1	1	1	1
c. Survey Meter (Eber. E-140 or E-140/N)	1	1	1	1	1
d. Standard G-M Probe (Eber. HP-240/HP-270)	1	1	1	1	1
e. Pancake G-M Probe (Eber. HP-210 or HP-260)	1	1	1	1	1
f. Pocket Dosimeters (0-5R)	2	2	2	2	2
g. Pocket Dosimeters (0-200mR)	2	2	2	2	2
h. Dosimeter Charger	1	1	1	1	1
3. Air Sampling Equipment					
a. 12 V Air Sampler and Sample Head (w/o Battery, Radeco H-809C)	1	1	1	0	0
b. 12 V Air Sampler and Sample Head (w/Battery, Radeco H-809B)	0	0	0	1	1
c. 120 V AC Air Sampler and Sample Head (Radeco HD-28B)	0	1	1	0	0
d. Air Sample Particulate Filters (pkg. of 10)	10	10	10	10	10
e. Iodine Filter Cartridges (pkg. of 10) 2 pkg - TEDA, 1 pkg - AgZ	3	3	3	3	3
f. Smear Packets (5 smear/ Packet)	50	50	50	50	50
g. Paper Envelopes for AIR Particulate Samples	25	25	25	25	25

*Equipment of equivalent function may be substituted.

TABLE 1 (Continued)
CONTENTS OF RADIOLOGICAL EMERGENCY KITS

ITEM	QUANTITY KIT # 1	2	3	4	5
h. Plastic Envelopes for Iodine Cartridges (Ziploc baggies)	30	30	30	30	30
i. Forceps	1	1	1	1	1
j. Compressed Air Cylinder, 1700 psi	2	2	2	2	2
k. Sample Head w/Adapter to fit Air Cylinder	1	1	1	1	1
l. Air Cylinder Regulator	1	1	1	1	1
4. Protective clothing/ Decontamination					
a. Protective Clothing Sets (coveralls, hood, booties, rubbers, gloves)	2	2	2	2	2
b. Full Face Mask	2	2	2	2	2
c. Type GMR-S or GMH-I (or equivalent) Ultra Filters for Face Masks	2	2	2	2	2
d. Skin Decontamination Soap (pt. bottle)	1	1	1	1	1
e. Hand Brush	1	1	1	1	1
f. Floor Scrub Brush	0	1	0	1	1
g. Paper Towels (pkg.)	0	1	0	1	1
h. Smear Pads 8"x8" cotton (pkg of 10)	1	3	1	1	1
i. Plastic Bags (38"x 65")	3	3	3	3	3
j. Bucket (10 quart)	0	1	0	1	1
k. Decontamination Agent (gallon bottles)	1	1	1	1	1
5. Signs/Barriers					
a. Radiation Signs (w/3 inserts)	2	4	2	4	4
b. Radiation Barricade Tape (100' rolls)	2	2	2	2	2

TABLE 1 (Continued)
CONTENTS OF RADIOLOGICAL EMERGENCY KITS

ITEM	QUANTITY KIT # 1	2	3	4	5
6. Sampling Equipment					
a. Sample Bottles (1 liter)	2	6	2	4	4
b. Plastic Bags Approx. (18"x24")	15	15	15	15	15
c. Trowel	1	1	1	1	1
7. Miscellaneous Equipment					
a. First Aid Kit (size 10)	1	1	1	1	1
b. Screwdriver	1	1	1	1	1
c. Crescent Wrench (8")	1	1	1	1	1
d. Scissors	1	1	1	1	1
e. Stopwatch	1	1	1	1	1
f. Roll of Dimes	1	1	1	1	1
g. Masking Tape (2" wide rolls)	2	2	2	2	2
h. Flashlights w/Batteries	1	2	1	2	2
i. Extra Batteries	2	4	2	4	4
j. Battery-Powered Lantern w/6 V Battery	1	1	1	1	1
k. Bolt Cutter	0	0	0	1	1
l. "Kwik-kold" Packs	4	4	4	4	4
m. Grass Shears	1	1	1	1	1
n. KI Tablets (bottle)	1	1	1	1	1
o. Gummed Labels (sheet)	5	5	5	5	5

TABLE 2
CONTENTS OF EVACUATION KITS

ITEM	QUANTITY PER KIT
1. Eberline E-140/N Survey Meter with HP-240/HP-210 Standard G-M Probe	1
2. Rad Owl Dose Rate Meter	1
3. Self-Reading Dosimeter Pencils, 0-200 mR Range	4
4. Dosimeter Charger w/extra battery	1
5. Barricade Tape, 100-Foot Rolls	2
6. Packages of 2-Inch Filters (10 filters/package)	50
7. Bullhorn w/extra battery	1
8. Plastic Bags (14' X 24")	3
9. Ballpoint Pens	4
10. Flashlight w/two extra batteries	1
11. Pocket Calculator w/extra battery	1
12. Corporation Key (3A90909)	1
13. Information Center Emergency Room Key	1
14. Instruction Binder:	
a. Emergency Procedure G-5, "Evacuation of Nonessential Site Personnel"	1
b. Form 69-9310, "Post-Evacuation Vehicle Monitoring Data"	50
c. Form 69-9311, "Evacuee Monitoring Data"	100
d. Form 69-9369, "Evacuation Kit Inventory Checklist"	5-10
e. Emergency Procedure G-4, "Personnel Accountability and Assembly"	1
15. Information Center Decontamination Shower Key (A53)	1

TABLE 3

LOCATIONS OF FIRST AID SUPPLIES

LOCATION	EQUIPMENT
1. Administration Building	First Aid Station
2. Security Building	First Aid Station
3. Training Building	First Aid Station
4. Intake Structure	First Aid Kit, Basket Stretcher
5. Cold Machine Shop	First Aid Kit
6. Access Control (First Aid Room)	First Aid Locker, Stretcher, Gurney, Scoop Stretcher, Backboard, Oxygen, Splints
7. Turbine Building	
104' Elevator Landing	First Aid Station
119' Elevator Landing	First Aid Station
140' Elevator Landing	First Aid Station
8. Control Room	First Aid Kit, Burn Kit
9. Auxiliary Building	
75' Elevator Landing	First Aid Station
100' Elevator Landing	First Aid Station
115' Elevator Landing	First Aid Station
10. Hot Machine Shop	First Aid Station
11. Containment Personnel Hatch	First Aid Kit, Basket Stretcher

TABLE 4

CONTENTS OF HOSPITAL KITS

Each of two hospital kits shall contain the following minimum items:

ITEMS	QUANTITY
Full face respirators w/Type H or equivalent filters	2 each
Disposable coveralls	4 each
Hood	4 each
Disposable shoe covers	4 pair
Surgical latex gloves	1 box
Rubbers	4 pair
Masking tape, 2" width	2 rolls
Duct tape, 2" width	2 rolls
"Radioactive Material Area" sign	5 each
"Surface Contamination Area" sign	5 each
"High Radiation Area" sign	2 each
"Radiation Area" sign	5 each
Barricade tape, 100 yd. roll	2 each
Ty raps	Minimum 30
"Radioactive Material" labels 4"x6"	10 each
"Radioactive Material" labels 1"x3"	1 roll
E140N/HP-210T	1 each
HP-260	1 each
Spare detector	1 each
1 Allen wrench 1/16"	1 each
1 HPI-1010 or equivalent	1 each
0-200 mR pencil dosimeters	2 each
0-5R pencil dosimeters	2 each
dosimeter charger	1 each
2" smears w/packets (5 smears/packet)	50 each
2" air sample filters w/envelopes	50 each
Plastic envelopes 3"x5"	30 each
Gummed labels	40 each
Plastic bags 38"x65"	6 each
Grease pencil	2 each
Ballpoint/felt tips pens	3 each
Waterproof pen	2 each
Personnel Decon Record Sheet (69-9392)	6 each
Bendix BDX-60 Air Sampler	1 each
38mm air filters/holders for BDX-60	1 box

TABLE 4 (Cont'd)

CONTENTS OF HOSPITAL KITS (Cont'd)

ITEMS	QUANTITY
Contamination Survey Sheet (69-9315)	6 each
Radiation Survey Sheet (69-9316)	6 each
Forceps	1 each
Smear pads 8" x 8" cotton (pkg of 10)	2 pkg
Medical referral form 62-6015	3 each
Light duty letter	3 each
Plastic bags 18"x24"	12 each

TABLE 5

PORTABLE COUNT RATE METERS

Instrument (Model No.)	Detector Type	Radiation Measured	Typical Range	Primary Use
Beta-Gamma Survey Meter (E-140), with the following detectors;			0-700, 0-7000 0-70,000 CPM	General contamination surveys
a) Hand probe (HP-260)	GM	Beta,Gamma		
b) Hand probe, end window, (HP-230A)	GM	Beta,Gamma		
c) Hand probe (HP-240)	GM	Beta,Gamma		
d) Shielded hand probe, (HP-210)	GM	Beta,Gamma		
Count rate meter (RM-15) for use with GM probes listed above, and:			0-500,0-5K, 0-50K, 0-500K GPM	Personnel contamination surveys
a) alpha scintillation probe (AC-3B-7)	ZnS(Ag), 59 cm^2 sensitive area	Alpha		
b) gamma scintillation probe (SPA-3)	NaI(Tl), 2" x 2"	Gamma		
Count rate meter (PRM-6) for use with GM probes listed above AC-3B-7 and SPA-3 probes	See above	See above	0-500, 0-5K, 0-50K, 0-500K CPM	General contamination surveys

TABLE 6

PORTABLE DOSE RATE INSTRUMENTS

Instrument (Model No.)	Detector Type	Radiation Measured	Range	Primary Use
Rad Owl (RO-1)	Ion Chamber 1.7 mg/cm^2 beta window, air fill gas	Beta,Gamma	Dose rate: 0-5, 0-50, 0-500 mR/hr 0-5, 0-50 0-500 R/hr Integrate: 0-5, 0-50, 0-500 mR	Beta and Gamma dose rate
Radgun (AGB-10K-SR)	Pressurized argon fill gas ion chamber, 20 mg/cm^2 beta window, (10 atm)	Beta,Gamma	0.01-10 mR/hr 0.01-10 R/hr 10-10,000 R/hr	Gamma dose rate
HPI Multiplying Ion Chamber (1010)	Multiplying ion chamber tissue equivalent walls and fill gas	Gamma Neutron	Dose rate: 0-0.1, 0-1 0-10, 0-100 0-1000 mrads/ hr Integrate: 0-0.01, 0-0.1, 0-1 mrad	Low level gamma dose rate
Portable REM Counter (PNR-4)	BF_3	Neutron, thermal to 10 MeV	0-5, 0-50, 0-500,0-5000 mrem/hr	Neutron dose rate
Teletector 6112	Twin G-M tubes 30 mg/ cm^2 beta window	Beta,Gamma	0-2 mR/hr, 0-50 mR/hr 0-2 R/hr 0-50 R/hr 0-1000 R/hr	Beta, Gamma dose rate
RO-2	Ion chamber 3.5 mg/cm^2 beta window, air fill gas	Beta,Gamma	Dose rate: 0-5, 0-50, 0-500 mR/hr 0-5 R/hr	Beta, Gamma dose rate

TABLE 7
CONTENTS OF POST-ACCIDENT SAMPLE KIT

ITEM		QUANTITY
1.	Instruction Binder	
	a. Sanford Marking Pens	2
	b. Red Marking Pens	2
	c. Black Marking Pens	2
	d. Ball Point Pens	2
	e. EP EF-5 "Emergency Equipment, Instruments and Supplies"	1
	f. CAP G-1 Access to IPLSS Area, Post Accident Sample Preparation, Handling, and Analysis	1
	g. CAP G-2 Interim Post LOCA Sampling System	1
	h. Emergency Phone Directory	1
	i. Adhesive Backed Sample Labels	20
2.	Monitoring Equipment	
	a. Teletector (Eberline 6112)	1
	b. Pocket Dosimeters (0-5R)	2
	c. Pocket Dosimeters (0-200mR)	2
	d. Dosimeter Charger	1
	e. Finger Rings	12
	f. Dose Rate Meter (HPI-1010 or RO-2)	1
	g. Survey Meter (Eber. E-140/N)	1
	h. Pancake G-M Probe (Eber. HP-210 or HP-260)	1
	i. Bendix BDX-60 air sampler	1
3.	Air Sampling Equipment	
	a. Tongs	1
	b. Forceps	1
	c. Silver Zeolite (AgZ) Cartridges	12
	d. 5 cc Shielded Syringes	5
	e. Glass vials (14 cc) w/rubber stoppers	12
	f. Air Sample filter/cartridge holder assembly	2

TABLE 7 (Continued)
CONTENTS OF POST-ACCIDENT SAMPLE KIT

ITEM		QUANTITY
3.	Air Sampling Equipment (Continued)	
g.	Surgical Tubing (1/4")	5'
h.	Duct tape	3
i.	Air Sample Particulate Filters (pkg of 10)	3
j.	Compressed Air Cylinders	2
k.	Air Cylinder Regulator	1
l.	Plastic Bags (15" x 30")	20
m.	8-D Hypodermic needles (LUER-LOK pkg of 12)	4
n.	"Radioactive Material" Labels	1 roll
o.	Liquid Sample Vessel adapter tubing (Plastic tubing w/male adapters)	2
p.	38mm Air Filters for Bendix BDX-60 air sampler	1 box
4.	Miscellaneous Equipment	
a.	Protective Clothing Sets (coveralls, hood, booties, shoe covers, gloves)	2
b.	Stopwatch	1
c.	Calculator	1
d.	Crescent Wrench (8")	1
e.	Screwdriver	1
f.	Allen wrench (3/32")	1
g.	Masking tape (2" wide rolls)	1
h.	Flashlight w/batteries	1
i.	Extra Batteries	2
j.	Allen wrench (5/64")	1
k.	Key to East gates outside elevation 115'	1

TABLE 8
DIABLO CANYON POWER PLANT
PLANT VEHICLE LIST

Primary position holders of certain emergency response positions are provided with VHF radio-equipped company vehicles. Because these persons are essentially on-call at all times, use of these vehicles is warranted in off hours to ensure rapid communication and response. These personnel are identified in EP G-2, "Establishment of the On-Site Emergency Organization."

MV #	CLASS	DESCRIPTION	MAKE	LICENSE	ASSIGNED TO
8-6145	P-1	Sedan	84 FORD	1HQN330	Plant Manager
8-0402	P-1	Sedan	83 FORD	1FTZ284	Department Head
8-0394	P-1	Sedan	83 FORD	1FTZ282	Department Head
8-0388	P-1	Sedan	83 FORD	1FTY538	Department Head
8-0408	P-1	Sedan	83 FORD	1FTZ285	Department Head
8-0401	P-1	Sedan	83 FORD	1FTZ283	Department Head
8-0389	P-1	Sedan	83 FORD	1FTY983	Department Head
8-7820	P-1	Sedan	84 FORD	1HQN227	Office Supervisor
8-7821	P-1	Sedan	84 FORD	1HQN226	Office Supervisor
8-6470	P-1	Sedan	78 PLYMOUTH	238 UKX	Office Supervisor
8-5014	P-1	Stationwagon	78 PLYMOUTH	745 UUA	Office Supervisor
8-A570	C-2	Van	79 DODGE	137 XLR	Office Supervisor
8-9064	P-1	Sedan	79 PLYMOUTH	292 WEJ	Security Supervisor
8-A713	C-4	Pickup	78 DODGE	1M85862	Security
8-6258		Bronco	84 FORD		Security

TABLE 8.a
Emergency Organization Radio Pagers

Emergency Position	Pager Encode Number	Group Page Encode Number
Site Emergency Coordinator		
Emergency Operations Coordinator (Plant Superintendent)		
Emergency Evaluation & Recovery Coord. (Asst. Plt. Mgr./Tech. Srvcs.)		
Emergency Radiological Advisor		
Emergency Liaison Coordinator		
Advisor to the County Emergency Organization (Asst. Plt. Mgr./Support Srvcs.)		
Emergency Maintenance Coordinator		
Site Chemistry & Radiation Protection Coordinator		
Emergency Liaison Assistant #1		
Emergency Liaison Assistant #2		
Data Processor No. 1		
Data Processor No. 2		
Instrument Maintenance Coordinator		
Electrical Maintenance Coordinator		
Mechanical Maintenance Coordinator		
Fire Marshal		
EARS Operator - TSC		
Mobil Environmental Monitoring Lab Operator		
Interim Public Information Recovery Manager		

Sue Brown
Missie Hobson

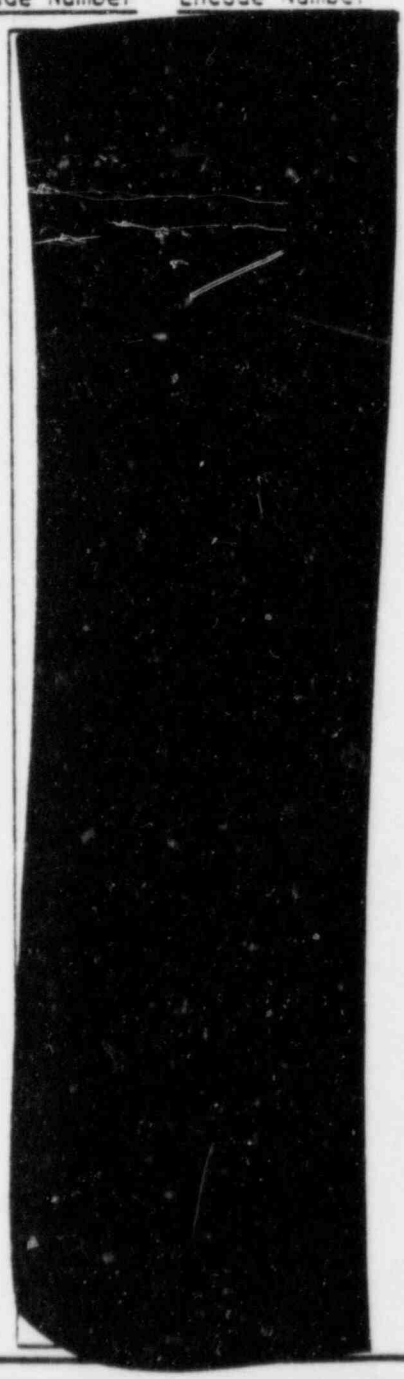


TABLE 8
DIABLO CANYON POWER PLANT
PLANT VEHICLE LIST (Continued)

MV #	CLASS	DESCRIPTION	MAKE	LICENSE	ASSIGNED TO
8-2480		Pickup	82 FORD	ZC85704	Security
8-7826		Pickup	84 FORD	2G74627	Mechanical Maintenance
8-A229	C-2	Pickup	78 FORD	1K74799	Mechanical Maintenance
8-0003	C-2	Pickup	73 DODGE	1T39700	Mechanical Maintenance
8-2903	C-2	Boom Truck	72 FORD	69676L	Mechanical Maintenance
8-7331	C-2	Pickup	FORD	1G49905	Mechanical Maintenance
8-A258	C-4	Pickup	79 CHEVROLET	1N20205	Operations
8-3800		Pickup	81 FORD	1Y53259	Operations
8-0435		Pickup	80 CHEVROLET	1V61228	Chem & Rad
8-3597		Pickup	80 CHEVROLET	1S80741	Chem & Rad
8-3882		Pickup	79 CHEVROLET	1P70245	Chem & Rad (on loan to Security)

TABLE 9
EWS SIREN LOCATIONS

SIREN NO.	LOCATION
1	North Morro Bay - near the intersection of Sequoia and Alder.
1A	Near intersection of So. Ocean and Chaney Ave. off Highway 1.
1B	Near the Cayucos Cemetary on Highway 1.
1C	Cayucos near the intersection of 4th & Park
2	On PG&E property at the Morro Bay Power Plant, Near Highway 1
2A	On PG&E property at the Morro Bay Power Plant, Near the Embarcadero
3	In Morro Bay, on Morro Avenue north of Olive.
3A	In Morro Bay, near the intersection of Ridgeway street and Fairview Avenue.
6	In Baywood Park near the intersection of Santa Ysabel and 2nd St.
6A	In Baywood Park near the intersection of El Morro Avenue and 8th Street.
7	In Los Osos on Pecho Valley Road several blocks west of Pine Avenue.
8A	Montana de Oro Park near the Ranger Station.
8B	Montana de Oro Park near the Ranger's residence.
8C	On the Field's property south of the gate.

TABLE 9 (Continued)

SIREN NO.	LOCATION
8D	On the Field's property near the Field's residence.
9	Near Highway 1 on PG&E's Baywood substation yard.
10	Near Highway 1 west of San Luisito Creek Road.
12	On Highway 1 just north of Cuesta College.
13	On Highway 1 northwest of animal shelter.
14	On Highway 1 about 1/2 mile west of the California Division of Forestry.
15	In San Luis Obispo across the street from City Fire Station on No. Chorro Street.
15A	On Foothill Blvd. just outside San Luis Obispo, 3/10/mi southwest of Rosita St.
16	In San Luis Obispo near Grand Avenue and Slack Street.
17	In San Luis Obispo parking lot next to the fire station on Garden Street.
18	In San Luis Obispo on Augusta St. near Sinsheimer School.
19A	On Clark Valley Rd. off Los Osos Valley Rd. near PGandE 500kV right-of-way.
19C	Los Osos - near the end of Valley View Place.
19D	In Los Osos - on Nipomo Avenue East of South Bay Boulevard between Willow Dr and Andre Ave.
19E	In Los Osos near the fire station on Calle Cardonay.

TABLE 9 (Continued)

SIREN NO.	LOCATION
20	On Los Osos Valley Road near the 500 kV right of way west of Turri Road.
21	On Los Osos Valley Road east of Turri Road.
22	On Los Osos Valley Road about 2 miles west of Foothill Blvd.
23	Near the intersection of O'Connor Way and Foothill Blvd.
23A	On O'Connor Way about 2 miles west of Foothill Blvd.
24	On Perfumo Canyon Road about 2 miles from Los Osos Valley Rd.
24A	At end of private dirt road about 2000' south from point that Perfumo Canyon Rd pavement ends.
24B	Near the end of Sycamore Canyon Road off Clark Valley Rd.
25	At the top of Perfumo Canyon Road.
25A	On Andres property along Coon Creek Road about 1-3/4 miles west of upper end of See Canyon Road.
26	Near intersection of See Canyon Road and Davis Canyon Road about 3.6 miles off of San Luis Bay Drive.
26A	On See Canyon Rd about 4.6 miles off of San Luis Bay Drive.
27	On See Canyon Rd about 1.2 miles off of San Luis Bay Drive.
27A	On See Canyon Road about 2.4 miles off of San Luis Bay Drive.
27B	On See Canyon Road about 3 miles off of San Luis Bay Drive.

TABLE 9 (Continued)

SIREN NO.	LOCATION
27C	On Davis Canyon Rd about 1/2 mile off of See Canyon Road.
B27D	On Davis Canyon Rd about 1.6 miles off of See Canyon Road.
27E	On Davis Canyon Rd about 1 mile off of See Canyon Road.
29	On Los Osos Valley Road about 2000' south of Madonna Road by Pacific Beach Continuation School
29A	Off Los Osos Valley Road in Laguna Lake area by Descanso Drive.
29B	On Calle Joaquin next to Madonna shopping center parking lot in San Luis Obispo.
30	In San Luis Obispo on Prado Road.
31	In PG&E's Service Center yard on So. Higuera.
31A	On Jesperson Road, south of Buckley Road.
31B	On Highway 101 Frontage Road 1 mile south of Higuera off ramp.
31C	On Highway 101 Frontage Road, just off Higuera off-ramp, about 2000' north of 500kV right of way.
31D	Near end of private dirt road west of Higuera off-ramp.
31E	Near 12kV line off Castro Canyon Road 1/2 mile off Highway 101 Frontage Road.
32	On Squire Canyon Road east of Highway 101 near intersection of San Luis Bay Drive and Monte Rd.
33	Across street from Bellview - Santa Fe Elementary School on See Canyon Road off San Luis Bay Drive.

TABLE 9 (Continued)

SIREN NO.	LOCATION
34	In Avila Beach near DCPP security gate.
34A	Light house local coverage.
B34B	4 miles off See Canyon Road near 500kV right of way, by John Knemeyer's house.
35	In downtown Avila Beach near San Antonio Street.
36	Off Highway 101 Frontage Road near intersection of Shell Beach Road and Landing Road.
36A	Off Highway 101 Frontage Road near intersection of Ontario Road and Avila Road.
37A	At Shell Beach fire station.
38	On Mattie Road near McClintock's restaurant.
38A	On Shell Beach Road near Price St. intersection.
39	In San Luis Obispo on Santa Fe Road south of Tank Farm Road.
40	On private property south of San Luis Airport.
41	On Biddle Ranch Rd just east of Edna Road.
42	On Price Canyon Road on Grace Oil property.
43	On Price Canyon Road about 1 mile north of Pismo Beach.
44	In Pismo Beach on a watertank in subdivision above Pismo Beach.
45	In Pismo Beach on Bello Road near Veteran's Hall.
46	On Highway 1 in So. Pismo Beach 1/2 mile north of Grand Ave.

TABLE 9 (Continued)

SIREN NO.	LOCATION
47	In Grover City - 4th and Manhattan.
48	In Oceano on Railroad Avenue.
49	In Grover City at Water Tower on Hillcrest Dr.
49B	On Oak Park Blvd. in Arroyo Grande .3 miles from Noyes Rd.
49C	In Arroyo Grande near intersection of Oak Park Blvd. and Vista Del Robles.
50	Near Oceano on The Pike between LaVista and So. Elm.
51	In Arroyo Grande near new fire station.
51A	At PGandE Oceano substation on Valley Road south of Arroyo Grande.
52	In Arroyo Grande Road on Huasna Rd east of Stagecoach Rd.
52A	On Printz Road north of Arroyo Grande.
52B	On Noyes Road north of Printz Road.
53	On Valley Road (Highway 1) about 7000 ft. south of 51A and just north of Halcyon Rd.
56	Near intersection of El Campo & Clarkway.
57	On Valley Road (Highway 1) about 7000 ft. South of 53 and 1 mile south of Halcyon Rd.
58	At end of Stanton Road South of Los Berros Road.
59	On Los Berros Rd between Stanton and Pomeroy.
60	On Pomeroy Road 1 mile south of Los Berros Rd. near Camino-Perrillo.
61	On Willow Road at Black Lake County Club.

TABLE 10

CONTROL ROOM EMERGENCY PLAN EQUIPMENT

ITEM		SURVEILLANCE TYPE/FREQUENCY
a.	Emergency Assessment and Response System	See GOAP W-302
	1) 9845C Computer	
b.	Manual Dose Projection Equipment	Inventory by Emergency Planning/Quarterly (Use form 69-10766)
	1) Base Map 2) Seven Overlays	
c.	Closed Circuit TV Cameras	Refer to the Technical Support Center
d.	Communications	See STP I-29
	1) Radio 2) Telephone 3) Emergency Signal	
e.	Radiological Display	See STP I-44
f.	Radiation Monitoring Display	See STP I-18
g.	Portable Video Camera	Inventory by Emergency Planning/Quarterly (Use Form 69-10766)

TABLE 11

TECHNICAL SUPPORT CENTER EMERGENCY PLAN EQUIPMENT

ITEM		SURVEILLANCE TYPE/FREQUENCY
a.	Nuclear Data Communications System	None-used normally
b.	Control Room Closed Circuit TV Monitors	Operability Check by Emergency Planning/Quarterly[1]
c.	Communications	Operability Check by Emergency Planning/Quarterly[1]
	1) Radio 2) Telephone	
d.	Emergency Assessment and Response System	See GOAP W-302
e.	Manual Dose Projection Equipment	Inventory/Quarterly[2]
	1) Dose Map 2) Seven Overlays	
f.	Computerized Records Management System	Inventory Equipment by Emergency Planning/Quarterly[2]
g.	Documents	Normal Document Control Practices, Inventory by Emergency Planning/Quarterly[2]
	1) Plant Manuals Volume 2 - Operating Procedures Volume 3 - Emergency Procedure Volume 4 - Licenses & Permits Volume 7 - Radiation Control Standards & Procedures Volume 9 - Temporary Procedures (Curves & Misc Data) Volume 11- Emergency Plans	

[1] Use Form 69-10767
[2] Use Form 69-10768

TECHNICAL SUPPORT CENTER EMERGENCY PLAN EQUIPMENT (cont.)

ITEM	SURVEILLANCE TYPE/FREQUENCY
2) Piping Schematics	
3) Instrument Schematics	
4) Electrical Diagrams, Logic Diagrams and Electrical Arrangements	
5) Operating Valve Diagrams	
6) Drawing 102037 - Instrument Locations	
7) Drawing 102038 - Instrument Reference	
8) Complete Set of Drawings	
9) Complete Set of Documents	
10) Cypher Pad Code for San Luis Obispo Service Center Garage	
11) Corporate Emergency Response Plan	
12) Nuclear Emergency Response Communications Directory	

TABLE 12

OPERATIONAL AND OPERATIONS SUPPORT CENTER EMERGENCY PLAN EQUIPMENT

ITEM	SURVEILLANCE TYPE/FREQUENCY
Operational Support Center (Security Building)	
a. Kits for Emergency Use	
1) Emergency Kits (2)	Refer to Section 1
2) Evacuation Kits (2)	Refer to Section 2
3) Hospital Kits (2)	Refer to Section 4
b. Communications	
1) Radio	Refer to Security Procedures
2) Telephone	
A) Direct line to TSC/CR	Operability Check by Emergency Planning/Quarterly[1]
B) Rolm phone	Operability Check by Emergency Planning/Quarterly[1]
c. Emergency Desk	
1) Emergency Communications Directory	
2) Workbook	
Operations Support Center (Access Control/Cold Machine Shop)	
a. Communications	
1) Telephone	
A) Direct line to TSC/CR	Operability Check by Emergency Planning/Quarterly[1]
B) Rolm phone	Operability Check by Emergency Planning/Quarterly[1]

[1] Use Form 69-10769

TABLE 13

EMERGENCY OPERATIONS FACILITY EMERGENCY PLAN EQUIPMENT

ITEM	SURVEILLANCE TYPE/FREQUENCY
a. Emergency Assessment and Response System (EARS)	See GOAP W-302
1) 9845T Computer 2) Chromatics Colorgraphics Display	
b. Manual Dose Projection Equipment	Inventory by Emergency Planning/Quarterly[2]
1) Base Map 2) Seven Overlays	
c. Communications	Operability Check by Emergency Planning/Quarterly[1]
1) Radio 2) Telephone	
d. Consumables	
1) Emergency Forms	Inventory by Emergency Planning/Quarterly[3]
2) Office Supplies	Check by Emergency Planning/Quarterly[1]

[1] Use Form 69-10770

[2] Use Form 69-10771

[3] Use Form 69-10582

EMERGENCY OPERATIONS FACILITY EMERGENCY PLAN EQUIPMENT (cont.)

ITEM	SURVEILLANCE TYPE/FREQUENCY
e. Documents	
1) Plant Manuals Volume 2 - Operating Procedures Volume 3 - Emergency Procedures (3 copies) Volume 4 - Licenses & Permits Volume 7 - Radiation Control Standards and Procedures Volume 9 - Temporary Procedure (Curves & Misc Data) Volume 11 - Emergency Plans (3 copies)	Normal Document Control Practice, Inventory by Emergency Planning[2]/ Quarterly
2) Piping Schematics	
3) Instrument Schematics	
4) Electrical Drawings	
5) Operating Valve Identification Diagrams	
6) Drawing 102037 - Instrument Locations	
7) Drawing 102038 - Instrument Reference	
8) Corporate Emergency Response Plan	
9) Nuclear Emergency Response Communications Directory	
10) Cypher Pad Code for San Luis Obispo Service Center Garage	

[1] Use Form 69-10770

[2] Use Form 69-10771

[3] Use Form 69-10582

PACIFIC GAS AND ELECTRIC COMPANY
DEPARTMENT OF NUCLEAR PLANT OPERATIONS
DIABLO CANYON POWER PLANT UNIT NOS. 1 AND 2

EMERGENCY FACILITY PHONE NUMBERS

1. EMERGENCY OPERATIONS FACILITY:

   Radiological Emergency Recovery Manager

   Radiological Monitoring Director

   UDAC

2. TECHNICAL SUPPORT CENTER

   Emergency Radiological Advisor

3. DCPP SECURITY

   Security Shift Supervisor

   Central Alarm System

   Secondary Alarm System

NUCLEAR PLANT OPERATIONS
DIABLO CANYON POWER PLANT UNIT NOS. 1 AND 2

EMERGENCY KIT INVENTORY CHECK LIST

KIT NO._____ KIT LOCATION_____

QUARTER* _____ DATE_____ PERFORMED BY _____

BOX A

	QUANTITY			
	REQUIRED	PRESENT	DEFECTIVE OR MISSING	REPLACED
1. Sampling Equipment				
a. Trowel	1			
2. Air Sampling Equipment				
a. 12V Air Sampler + Sample Head (w/Battery, Radeco H-809B)	*			
b. 12V Air Sampler + Sample Head (w/o Battery, Radeco H-809C)	*			
c. 120V Air Sampler + Sample Head (Radeco HD-28B)	*			
d. Air Cylinder Regulator	1			
e. Compressed Air Cylinders (at 1700 psi)	2			
f. Sample Head w/Adapter to fit Air Cylinder	1			
g. Air Sample Particulate Filters (pkg of 10)	10			

NUCLEAR PLANT OPERATIONS
DIABLO CANYON POWER PLANT UNIT NOS. 1 AND 2

EMERGENCY KIT INVENTORY CHECK LIST

KIT NO._____ KIT LOCATION_____

QUARTER * _____ DATE_____ PERFORMED BY _____

BOX A

	QUANTITY			
	REQUIRED	PRESENT	DEFECTIVE OR MISSING	REPLACED
h. Paper Envelopes for Particulate Samples (Air Sample)	25			
i. Smear Packets (5 smear/pkt)	50			
j. Plastic Envelopes for Iodine Cartridges (Ziploc Baggies)	30			
k. Forceps	1			
3. Protective Clothing/Decontamination				
a. Radiacwash Decontamination Agent (1 Gal. or Equiv.)	1			
b. Skin Decontamination Soap (1 pt. or Equiv.)	1			
c. Hand Brush	1			
d. Floor Scrub Brush	*			
e. Bucket (10 qt)	*			

*Check with appropriate inventory list located in information binder for kit requirements.

NUCLEAR PLANT OPERATIONS
DIABLO CANYON POWER PLANT UNIT NOS. 1 AND 2

EMERGENCY KIT INVENTORY CHECK LIST

KIT NO. _____ KIT LOCATION _____

QUARTER * _____ DATE _____ PERFORMED BY _____

BOX A

	QUANTITY			
	REQUIRED	PRESENT	DEFECTIVE OR MISSING	REPLACED
4. Monitoring Equipment				
a. Pocket dosimeter (0-5R)	2			
b. Pocket dosimeter (0-200MR)	2			
5. Miscellaneous				
a. Gummed Labels (sheet)	5			
b. Flashlight w/batteries	*			
c. Extra Batteries	*			
d. Roll of Dimes	1			
e. Stopwatch	1			
f. Scissors	1			
g. Crescent Wrench (8")	1			
h. Screwdriver	1			
i. Grass Shear	1			
j. KI Tablets (bottle)	1			
k. Bolt Cutter	*			

NUCLEAR PLANT OPERATIONS
DIABLO CANYON POWER PLANT UNIT NOS. 1 AND 2

EMERGENCY KIT INVENTORY CHECK LIST

KIT NO._____ KIT LOCATION_____

QUARTER *_____ DATE_____ PERFORMED BY _____

BOX B

	QUANTITY			
	REQUIRED	PRESENT	DEFECTIVE OR MISSING	REPLACED
1. Instructions, Procedures, and Supplies				
a. Instruction Binder	1			
b. Tables of Contents	1			
c. Sanford Marking Pens	2			
d. Red Marking Pens	2			
e. Black Marking Pens	2			
f. Ball Point Pens	2			
g. SLO County Map	1			
h. Equipment Location Drawings (Set) Unit 1	1			
i. Corporation Key (3A 90909)	1			
j. Information Center Key	*			
k. "Emergency Onsite Environment Montr. Prog.", RB-7	1			
l. "Emergency Offsite Environment Montr. Prog.", RB-8	1			
m. "Emergency Equip., Instr., and Supplies", EF-5	1			
n. Record of Potassium Iodide Distribution, Form #18-9395	1			

NUCLEAR PLANT OPERATIONS
DIABLO CANYON POWER PLANT UNIT NOS. 1 AND 2

EMERGENCY KIT INVENTORY CHECK LIST

KIT NO._____ KIT LOCATION_____

QUARTER_____ DATE_____ PERFORMED BY _____

BOX B

	QUANTITY			
	REQUIRED	PRESENT	DEFECTIVE OR MISSING	REPLACED
o. Emergency Environmental Monitoring Field Data Sheet (Form 18-9259)	100			
p. Computation Paper (Packet)	1			
q. Calculator S/N_____	1			
r. High Security Pin Tumbler Key (for PIC)	1			
2. Air Sampling Equipment				
a. Iodine Filter Cartridges 3 pkgs of 10 filters each:				
1 pkg-AgZ	1			
2 pkg-TEDA	2			
3. Sampling Equipment				
a. Plastic Bags Approx. (18" x 24")	15			
b. Sample bottles (1 liter)	*			

NUCLEAR PLANT OPERATIONS
DIABLO CANYON POWER PLANT UNIT NOS. 1 AND 2

EMERGENCY KIT INVENTORY CHECK LIST

KIT NO. _____ KIT LOCATION _____

QUARTER _____ DATE _____ PERFORMED BY _____

BOX B

	QUANTITY			
	REQUIRED	PRESENT	DEFECTIVE OR MISSING	REPLACED
4. Protective Clothing/Decontamination				
a. Protective Clothing Sets (Coveralls, hood, booties, rubbers, gloves)	2			
b. Full Face Mask	2			
c. Type GMR-S Filters or GMH-1 (or equiv.) for Face Masks	2			
d. Smear Pads 8" x 8" cotton (Pkg of 10)	*			
e. Paper Towels (pkg)	*			
f. Plastic Bags (38" x 65")	3			

NUCLEAR PLANT OPERATIONS
DIABLO CANYON POWER PLANT UNIT NOS. 1 AND 2

EMERGENCY KIT INVENTORY CHECK LIST

KIT NO._____ KIT LOCATION_____

QUARTER_____ DATE_____ PERFORMED BY _____

BOX B	QUANTITY			
5. Miscellaneous Equipment	REQUIRED	PRESENT	DEFECTIVE OR MISSING	REPLACED
a. First Aid Kit (Size 10)	1			
b. Masking Tape (2" wide rolls)	2			
c. Battery Powered Lantern (w/6V Battery)	1			
d. "Kwik-kold" Packs	4			
6. Signs + Barriers				
a. Radiation Signs (w/3 inserts)	*			
b. Radiation Barricade Tape (100' Rolls)	2			

*Check with appropriate inventory list located in information binder for kit requirements.

NUCLEAR PLANT OPERATIONS
DIABLO CANYON POWER PLANT UNIT NOS. 1 AND 2

EMERGENCY KIT INVENTORY CHECK LIST

KIT NO._____ KIT LOCATION_____

QUARTER * _____ DATE_____ PERFORMED BY _____

BOX C

	QUANTITY			
	REQUIRED	PRESENT	DEFECTIVE OR MISSING	REPLACED
1. Monitoring Equipment				
a. Dose Rate Meter Rad Owl/RO-2 (or equiv.)	*			
b. Dose Rate Meter HPI-1010 (or equiv.)	*			
c. Survey Meter (Eber. E-140 or E-140/N)	1			
d. Standard G-M Probe (Eber. HP-240/HP-270 or equiv.)	1			
e. Pancake G-M Probe (Eber. HP-210 or HP-260)	1			
f. Dosimeter Charger	1			

*Check with appropriate inventory list located in information binder for kit requirements.

DEPARTMENT OF NUCLEAR PLANT OPERATIONS
DIABLO CANYON POWER PLANT UNIT NOS. 1 AND 2

EVACUATION KIT INVENTORY CHECK LIST

KIT NO._____ DATE_____ PERFORMED BY_____

ITEM	QUANTITY	CHECKED OK	CHECKED DEFECTIVE OR MISSING	REPLACED
1. Binder Contents				
a. Emergency Procedures G-4, G-5	1 each	[ ]	[ ]	[ ]
b. Form 69-9310	50	[ ]	[ ]	[ ]
c. Form 69-9311	100	[ ]	[ ]	[ ]
d. Form 69-9369	5-10	[ ]	[ ]	[ ]
2. Ballpoint Pens	4	[ ]	[ ]	[ ]
3. Calculator (I.D. No._____)	1	[ ]	[ ]	[ ]
Battery	1			[ ]
4. Flashlight	1	[ ]	[ ]	[ ]
Batteries	2			[ ]
5. Plastic Bags (14" x 24")	3	[ ]	[ ]	[ ]
6. Bullhorn (I.D. No._____)	1			[ ]
Batteries	1	[ ]	[ ]	[ ]
7. Packages of 2" Filters (10 filters per package)	50	[ ]	[ ]	[ ]
8. Barricade tape, 100 ft. rolls	2	[ ]	[ ]	[ ]
9. Dosimeter chgr. (I.D. No._____)	1	[ ]	[ ]	[ ]
Battery				[ ]
10. Dosimeter pencils, 0-200 mR	4	[ ]	[ ]	[ ]

DEPARTMENT OF NUCLEAR PLANT OPERATIONS
DIABLO CANYON POWER PLANT UNIT NOS. 1 AND 2

EVACUATION KIT INVENTORY CHECK LIST

ITEM	QUANTITY	CHECKED OK	CHECKED DEFECTIVE OR MISSING	REPLACED
11. Rad Owl	1	[ ]	[ ]	[ ]
(Replacement Inst. No._____)				
12. Eberline E-140 Survey Meter or E140N	1	[ ]	[ ]	[ ]
(Replacement Inst. No._____)				
13. HP-240 GM Probe or HP-210				
(I.D. No._____)	1	[ ]	[ ]	[ ]
14. Corporation Key (3A90909)	1	[ ]	[ ]	[ ]
15. Information Center Emergency Room Key	1	[ ]	[ ]	[ ]

REMARKS_____

APPROVED_____ DATE_____

DEPARTMENT OF NUCLEAR PLANT OPERATIONS
DIABLO CANYON POWER PLANT UNIT NOS. 1 AND 2

HOSPITAL KIT INVENTORY CHECK LIST

KIT NO._____ DATE_____ PERFORMED BY_____

ITEM		QUANTITY	CHECKED: OK	CHECKED: DEFECTIVE OR MISSING	REPLACED
1.	Full Face Respirator w/Type H or equivalent filters	2	[ ]	[ ]	[ ]
2.	Disposable Coveralls	4	[ ]	[ ]	[ ]
3.	Hood	4	[ ]	[ ]	[ ]
4.	Disposable Shoe Covers (pr.)	4	[ ]	[ ]	[ ]
5.	Surgical Latex Gloves (box)	1	[ ]	[ ]	[ ]
6.	Rubbers (pr.)	4	[ ]	[ ]	[ ]
7.	Masking Tape, 2" width (roll)	2	[ ]	[ ]	[ ]
8.	Duct Tape, 2" width (roll)	2	[ ]	[ ]	[ ]
9.	"Radioactive Material Area" sign	5	[ ]	[ ]	[ ]
10.	"Surface Contamination Area" sign	5	[ ]	[ ]	[ ]
11.	"High Radiation Area" sign	2	[ ]	[ ]	[ ]
12.	"Radiation Area" sign	5	[ ]	[ ]	[ ]
13.	Barricade tape, 100 yd. roll	2	[ ]	[ ]	[ ]
14.	Ty-wraps	30	[ ]	[ ]	[ ]
15.	"Radioactive Material" labels, 4"x6"	10	[ ]	[ ]	[ ]
16.	"Radioactive Material" labels, 1"x3" (roll)	1	[ ]	[ ]	[ ]
17.	E-140/N w/HP-210T	1	[ ]	[ ]	[ ]
18.	HP-260	1	[ ]	[ ]	[ ]

DEPARTMENT OF NUCLEAR PLANT OPERATIONS
DIABLO CANYON POWER PLANT UNIT NOS. 1 AND 2

HOSPITAL KIT INVENTORY CHECK LIST

KIT NO._____ DATE_____ PERFORMED BY_____

ITEM	QUANTITY	CHECKED OK	CHECKED DEFECTIVE OR MISSING	REPLACED
19. Spare Detector	1	[ ]	[ ]	[ ]
20. Allen Wrench, 1/16"	1	[ ]	[ ]	[ ]
21. HPI-1010 or equivalent	1	[ ]	[ ]	[ ]
22. 0-200 mR Pencil Dosimeters	2	[ ]	[ ]	[ ]
23. 0-5R Pencil Dosimeters	2	[ ]	[ ]	[ ]
24. Dosimeter Charger w/Battery	1	[ ]	[ ]	[ ]
25. 2" Smears w/packet (5 smears/packet)	50	[ ]	[ ]	[ ]
26. 2" Air Sample Filter w/envelopes	50	[ ]	[ ]	[ ]
27. 38mm Air Filter for Bendix BDX-60 (box)	1	[ ]	[ ]	[ ]
28. Plastic Envelopes, 3" x 5"	30	[ ]	[ ]	[ ]
29. Gummed Labels	40	[ ]	[ ]	[ ]
30. Plastic Bags, 38" x 65"	6	[ ]	[ ]	[ ]
31. Grease Pencil	2	[ ]	[ ]	[ ]
32. Ballpoint/Felt Tip Pens	3	[ ]	[ ]	[ ]
33. Waterproof Pen	2	[ ]	[ ]	[ ]
34. Personnel Decon. Records (69-9392)	6	[ ]	[ ]	[ ]
35. Contamination Survey Sheet (69-9315)	6	[ ]	[ ]	[ ]
36. Radiation Survey Sheet (69-9316)	6	[ ]	[ ]	[ ]

DEPARTMENT OF NUCLEAR PLANT OPERATIONS
DIABLO CANYON POWER PLANT UNIT NOS. 1 AND 2

HOSPITAL KIT INVENTORY CHECK LIST

KIT NO._____ DATE_____ PERFORMED BY_____

ITEM	QUANTITY	CHECKED		
		OK	DEFECTIVE OR MISSING	REPLACED
37. Forceps	1	[ ]	[ ]	[ ]
38. Smear Pads 8" x 8" cotton (Pkg. of 10)	2	[ ]	[ ]	[ ]
39. Medical Referral Form (69-6015)	3	[ ]	[ ]	[ ]
40. Light Duty Letter	3	[ ]	[ ]	[ ]
41. Plastic Bag, 18" x 24"	12	[ ]	[ ]	[ ]
42. BDX-60 Air Sampler	1	[ ]	[ ]	[ ]

REVIEWED BY _____ DATE_____

DEPARTMENT OF NUCLEAR PLANT OPERATIONS
DIABLO CANYON POWER PLANT UNIT NOS. 1 AND 2

POST-LOCA SAMPLING KIT INVENTORY CHECK LIST

KIT NO._____ DATE_____ PERFORMED BY_____

ITEM	QUANTITY	CHECKED: OK	CHECKED: DEFECTIVE OR MISSING	REPLACED
INSTRUCTION BINDER				
Sanford Marking Pens	2	[ ]	[ ]	[ ]
Red Marking Pens	2	[ ]	[ ]	[ ]
Black Marking Pens	2	[ ]	[ ]	[ ]
Ballpoint Pens	2	[ ]	[ ]	[ ]
EP-EF-5 "Emergency Equipment, Instruments, Supplies"	1	[ ]	[ ]	[ ]
CAP-G-1 "Access to IPLSS Area, Post Accident Sample Preparations, Handling and Analysis"	1	[ ]	[ ]	[ ]
CAP-G-2 "Interim POST LOCA Sampling System"	1	[ ]	[ ]	[ ]
Emergency Phone Directory	1	[ ]	[ ]	[ ]
Adhesive Backed Sample Labels	20	[ ]	[ ]	[ ]
MONITORING EQUIPMENT				
Teletector (Eberline 6112)	1	[ ]	[ ]	[ ]
Pocket Dosimeters (0-5R)	2	[ ]	[ ]	[ ]
Pocket Dosimeters (0-200mR)	2	[ ]	[ ]	[ ]
Dosimeter Charger	1	[ ]	[ ]	[ ]
Finger Rings	12	[ ]	[ ]	[ ]
Dose Rate Meter (HPI-1010 or RO-2)	1	[ ]	[ ]	[ ]
Survey Meter (Eberline E-140/N)	1	[ ]	[ ]	[ ]
Pancake G-M Probe (Eberline HP-210 or HP-260)	1	[ ]	[ ]	[ ]
Bendix BDX-60 Air Sampler	1	[ ]	[ ]	[ ]
AIR SAMPLING EQUIPMENT				
Tongs	1	[ ]	[ ]	[ ]
Forceps	1	[ ]	[ ]	[ ]
Silver Zeolite (AgZ) Cartridges	12	[ ]	[ ]	[ ]
5cc Shielded Syringes	5	[ ]	[ ]	[ ]

DEPARTMENT OF NUCLEAR PLANT OPERATIONS
DIABLO CANYON POWER PLANT UNIT NOS. 1 AND 2

POST-LOCA SAMPLING KIT INVENTORY CHECKLIST

KIT NO._____ DATE_____ PERFORMED BY_____

ITEM	QUANTITY	CHECKED: OK	CHECKED: DEFECTIVE OR MISSING	REPLACED
Glass vials (14cc) w/rubber stoppers	12	[ ]	[ ]	[ ]
Air Sample Filter Cartridge Assembly	2	[ ]	[ ]	[ ]
Surgical Tubing (1/4")	5ft	[ ]	[ ]	[ ]
Duct tape	3	[ ]	[ ]	[ ]
Air Sample Particulate Filters (Pkg of 10)	3	[ ]	[ ]	[ ]
Compressed Air Cylinders	2	[ ]	[ ]	[ ]
Air Cylinder Regulator	1	[ ]	[ ]	[ ]
Plastic Bags (15" x 30")	20	[ ]	[ ]	[ ]
B-D Hypodermic Needles (LUER-LOK pkg of 12)	4	[ ]	[ ]	[ ]
"Radioactive Material" labels	1roll	[ ]	[ ]	[ ]
Liquid Sample Vessel Adapter Tubing (plastic tubing w/male adapters)	2	[ ]	[ ]	[ ]
38mm Air Filters for Bendix BDX-60 air sampler	1box	[ ]	[ ]	[ ]
MISCELLANEOUS EQUIPMENT				
Protective clothing sets (coveralls, hood, booties, shoe covers, gloves)	2	[ ]	[ ]	[ ]
Stopwatch	1	[ ]	[ ]	[ ]
Calculator	1	[ ]	[ ]	[ ]
Crescent Wrench (8")	1	[ ]	[ ]	[ ]
Screwdriver	1	[ ]	[ ]	[ ]
Allen Wrench (3/32")	1	[ ]	[ ]	[ ]
Masking Tape (2" wide rolls)	1	[ ]	[ ]	[ ]
Flashlight w/batteries	1	[ ]	[ ]	[ ]
Extra batteries	2	[ ]	[ ]	[ ]
Allen Wrench (5/64")	1	[ ]	[ ]	[ ]
Key to East Gates Outside Elevation 115'	1	[ ]	[ ]	[ ]

DEPARTMENT OF NUCLEAR PLANT OPERATIONS
DIABLO CANYON POWER PLANT

EMERGENCY PLAN PHONE NUMBER VERIFICATION CHECKLIST

CHECKED BY_____ DATE_____

PROCEDURE NO.	PAGE NO.	AGENCY	COMMENTS (Note How Checked)
EP OP-6	p. 8	TSC Operator, dedicated shutdown panel, 480V vital switchgear area, 4 KV vital switchgear area	
EP R-1	Attachment 7 p. 1 & 2	Safety, Health & Claims Personnel (Injuries)	
	p. 9	San Luis Ambulance and French Hospital	
	p. 15	Supervising Nuclear Generation Engr.	
EP R-3	p. 3	State Executive Officer, Calif. Regional Water Quality Control Board, Central Coast Region	
EP R-7	p. 8	Supervising Nuclear Generation Engr.	
	p. 9	Los Padres District Manager	
EP M-1	p. 5	Supervising Nuclear Generation Engr.	
	Attachment 7	List of physicians, hospitals & ambulances serving the immediate area of Diablo Canyon.	
	Attachment 8	List of physicians, hospitals, and ambulances serving the immediate area of Diablo Canyon	
	Attachment 9	Safety, Health and Claims.	

DEPARTMENT OF NUCLEAR PLANT OPERATIONS
DIABLO CANYON POWER PLANT

EMERGENCY PLAN PHONE NUMBER VERIFICATION CHECKLIST

CHECKED BY_____ _____ DATE_____

PROCEDURE NO.	PAGE NO.	AGENCY	COMMENTS (Note How Checked)
EP M-2	Appendix Z	Supervising Nuclear Generation Engr.	
		Division Field Claims Investigator	
EP M-4	P. 4, 7, and Attachment	UC Berkeley Seismograph Station	
EP M-6	p. 3	Security Extensions	
	p. 8	Fire Assistance Communications List	
EP M-7	P. 2	PGandE Law Department, Mr. David Williamson	
	p. 2	Organizations to be notified in the event of an oil spill	
	p. 2	California State Office of Emergency Service	
	p. 3	California State Land Commission	
	p. 3	State Executive Officer California Regional Water Quality Control Board Central Coast Region	
EP OR-1	Attachment 2	Table 1 - Offsite Emergency Support Organization	
EP OR-2	Attachment 1	Media Notification List	

DEPARTMENT OF NUCLEAR PLANT OPERATIONS
DIABLO CANYON POWER PLANT

EMERGENCY PLAN PHONE NUMBER VERIFICATION CHECKLIST

CHECKED BY_____ DATE_____

PROCEDURE NO.	PAGE NO.	AGENCY	COMMENTS (Note How Checked)
EP EF-1	p. 2, Attachments 1, 2, 4	Hot shutdown panel, dedicated shutdown panel, Control Room, EOF, CIRC, Dosimetry personnel	
EP EF-4	Attachment 1	PT&T and PGandE	
EP EF-5	Attachment 1	EOF, UDAC, TSC, DCPP	
EP RB-8	p. 3	DCPP, EOF, TSC	
EP G-2	Attachment 1 p. 1-28	Emergency Organization Call List	
EP G-3	Attachment 2	Emergency Offsite Organization Call List	
	Attachment 3	Mobile Phone and Pager Instructions	
EP G-4	p. 4	Emergency Conference Line	
	p. 6	Emergency Conference Line	
	p. 7	Control Room, TSC, Cold Machine Shop, Access Control	
	p. 8	Security Building, Temp Training Building, Security Training Trailer	

PACIFIC GAS AND ELECTRIC COMPANY
DEPARTMENT OF NUCLEAR PLANT OPERATIONS
DIABLO CANYON POWER PLANT UNIT NOS. 1 AND 2

TITLE: CONTROL ROOM CHECKLIST

DATE_____ PERFORMED BY_____

1. Dose Projection Equipment

   _____(1) Base Map

   _____(7) Overlays (Stability Class A-G)

2. _____Portable Video Camera (in Shift Foreman's Office)

PACIFIC GAS AND ELECTRIC COMPANY
DEPARTMENT OF NUCLEAR PLANT OPERATIONS
DIABLO CANYON POWER PLANT UNIT NOS. 1 AND 2

TITLE: TECHNICAL SUPPORT CENTER CHECKLIST

DATE_____ PERFORMED BY_____

1. Radios

Check functioning of the following: (Use Operating Procedure K-9 "Instructions for Operation of DCPP Radio Systems")

Operations Modules

Check functioning of the Repeater/Local, Backup and Remote modules by selecting one and check module functioning by receiving available traffic or by calling the Information Center (encode 22 on F1) or Morro Bay (encode 33). [ ]

NOTE: Transmitter functioning is checked by operations using STP I-29

Security Modules

Check function of the Repeater/Local, Backup and Remote modules by selecting one and check module functioning by receiving Local Traffic. [ ]

NOTE: Transmitter functioning is checked by Security.

Division Radio

Check module functioning of the division radio modules by selecting each and receiving available Traffic.

NOTE: Transmitter functioning is checked by operations using STP I-29.

NOTE: If no Traffic is available note that below.

H/P Radio

Check functioning of the Repeaters, Local and HP Remote modules by selecting one at a time and activating an Emergency Organization pager unit. [ ]

NOTE: Pager must be outside the TSC to receive the signal.

PACIFIC GAS AND ELECTRIC COMPANY
DEPARTMENT OF NUCLEAR PLANT OPERATIONS
DIABLO CANYON POWER PLANT UNIT NOS. 1 AND 2

TITLE: TECHNICAL SUPPORT CENTER CHECKLIST

Note any problems with the radio console:

2. Telephones

NOTE: CBX Telephones are in routine use and need not be checked.

Check functioning of the ROLM Console by turning on, calling the plant emergency number [(595-7335)] from any phone and receiving the call at the console. Extend the call to any extension and verify connections between the originating phone and the ringing phone. [ ]

TURN OFF CONSOLE AFTER CHECKING

Verify the ATL to San Luis Obispo County Sheriff's Dispatch Center by verifying the phone is answered at that office and two-way communication can be maintained.

Verify the ATL to the State Office of Emergency Services by verifying the phone is answered at that office and two-way communications can be maintained. Check both extensions (Site Emergency Coordinator's desk and EARS office) [ ]

Check functioning of the following ATL's by verifying they ring when selected. Allow to ring long enough so someone in the vicinity can answer, if available: [ ]

	OFFICE	OPERATIONS CENTER	EARS OFFICE
CR-1	[ ]	[ ]	[ ]
CR-2	[ ]	[ ]	[ ]
OSC	[ ]	[ ]	
EOF	[ ]	[ ]	[ ]

PACIFIC GAS AND ELECTRIC COMPANY
DEPARTMENT OF NUCLEAR PLANT OPERATIONS
DIABLO CANYON POWER PLANT UNIT NOS. 1 AND 2

TITLE: TECHNICAL SUPPORT CENTER CHECKLIST

Verify functioning of one SLO off premise extension by calling any plant extension using [redacted]

- Office
- Operations Center
- EARS Office

[ ]
[ ]
[ ]

3. Verify functioning of The Black Net Telephone by calling any extension. [ ]

4. Check functioning of the Control Room Closed Circuit TV's as follows (Refer to operating instructions in the TV desk drawer):

   Color monitors 1 - 5 receive pictures from cameras 1 - 7 [ ]

   Black and White monitor #6 receives pictures from cameras 8 and 9. [ ]

   Pan, zoom and focus controls on cameras 1 - 7 function [ ]

   NOTE: Close the iris on cameras 1 - 7 following check.

5. Equipment Quantities - Check per Form 69-10752

   Note Discrepancies Below:

PACIFIC GAS AND ELECTRIC COMPANY
DEPARTMENT OF NUCLEAR PLANT OPERATIONS
DIABLO CANYON POWER PLANT UNIT NOS. 1 AND 2

TITLE: TECHNICAL SUPPORT CENTER EQUIPMENT QUANTITY CHECKLIST

OFFICE

_____ • 1 Rolm Telephone Console with Handset
_____ 1 Emergency Equip. Cabinet: Status Boards (6) and 1 telephone number board
_____ 2 Headsets
_____ Box of Office Supplies (Verify ample stationary supplies)
_____ Emergency Telephone Directory (7)
_____ 16 Nameplates
_____ Emergency Classification Diagram
_____ Emergency Forms per form 69-10582
_____ 4 TI-1750 III Calculators
_____ 1 Case of KI

OPERATIONS CENTER

_____ Emergency Forms per form 69-10582
_____ CLosed Circuit TV Monitors - 5 Color
1 Black and White
_____ Tape drive & disc
_____ Harris Processor - Computer
_____ Harris Terminal
_____ Harris Key Stations - 2 (Terminals)
_____ Harris Line Printers (2)
_____ Nicolet Zeta Plotter
_____ TI ONMI 800 Printer

EARS OFFICE

_____ EARS Computer and Operating Terminal
_____ Emergency Telephone Directory (3)
_____ Emergency Forms per form 69-10582
_____ 1 Status Board
_____ 1 Set Dispersion Overlays and Map in Holder

RECORDS OFFICE

_____ Aperature Card Viewer
_____ Aperature Card Files with Cards
_____ Microfilm Printer/Viewer with Reels
_____ Teledyne Geo Tech Auto Met V Computer

PACIFIC GAS AND ELECTRIC COMPANY
DEPARTMENT OF NUCLEAR PLANT OPERATIONS
DIABLO CANYON POWER PLANT UNIT NOS. 1 AND 2

TITLE: TECHNICAL SUPPORT CENTER EQUIPMENT QUANTITY CHECKLIST

RECORDS OFFICE (CONTINUED)

_____ Construction DWG Index Books 1 and 2
_____ 7 Phone Books
_____ • 18 MSA SCBA's
_____ Panafax Document Transmitter - MV1200
_____ Micro-fiche Printer/Viewer
_____ Hewlett Packard Computer Terminal (1)
_____ Instruction Manuals - Hard Copy in Cabinets (2)
_____ Plant Manuals

Volume 2 Operating Procedures A-F, G-O, #67
Volume 3 Emergency Procedures, #66, 67, 79
Volume 3A Emergency Procedures, #66, 67, 79
Volume 3B Emergency Procedure, #66, 67, 79
Volume 4 Licenses & Permits, #67
Volume 7 Radiation Control Standards, #67
Volume 9 Temporary Procedures & Instructions, #67
Volume 11 Emergency Plans, #66, 67, 79
Volume 16 Annunciator Response, #67
Volume 1-14 Final Safety Analysis Report

_____ RMS Handbook - TSC
_____ Equipment Record Number Index
_____ Corporate Emergency Response Plan, Control #271-272
_____ Diablo Canyon Emergency Response Communications Directory (2 binders) _____
Emergency Response Manual - INPO RP/EP-1 9/80
_____ Report on Small Break Accidents for Westinghouse NSSS System, Vol. I, II, III
_____ Reference Dwg. 102037, 102038 - Instrument Locations
_____ Reference Dwg. 101876-14 - Main Annunciator Input List
_____ 101900 - List of Equipment Location Codes - Unit 1
_____ Uncontrolled Emergency Procedures Volume - (there are 6 binders all the same)
_____ Operating Valve Identification Diagrams, Control Copy #31 - Unit 1
_____ Instrument Schematics, Control Copy #24
_____ Electrical Diagrams, Logic Diagrams & Electrical Arrangements, Control Copy #27 Unit 1 and 2
_____ Piping Schematics, Control Copy #3

NRC OFFICE

_____ NRC Red "Hot Line" Phone
_____ NRC Blue HPN Phone
_____ NRC HPN Phone Directory (1)

PACIFIC GAS AND ELECTRIC COMPANY
DEPARTMENT OF NUCLEAR PLANT OPERATIONS
DIABLO CANYON POWER PLANT UNIT NOS. 1 AND 2

TITLE: OPERATIONAL SUPPORT CENTER AND OPERATIONS SUPPORT CENTER CHECK LIST

DATE_____ PERFORMED BY_____

Operational Support Center (Security Building Lunchroom)

1. Check CBX extension by calling Unit 1 Control Room
   Verify the Control Room answers. [ ]

2. Check ATL to CR/TSC by lifting receiver, verify Control Room answers. [ ]

3. Operational Support Center Workbook.* [ ]

Procedure	Rev. No.
G-4	_____
EF-2	_____

Form 69-9639, Date_____, Quantity_____(12)

*Check procedure revision number and form date against a controlled copy of the emergency procedure (Plant Manual Volume 3A). Note any discrepancies below and provide updated material.

Operations Support Center (Access Control/Cold Machine Shop Area)

1. Check emergency CBX extension by calling Unit 1 Control Room.
   Verify the Control Room answers. [ ]

2. Check ATL to CR/TSC by lifting receiver, verify Control Room answers. [ ]

TITLE: EMERGENCY OPERATIONS FACILITY EQUIPMENT FUNCTION CHECKLIST

PHONE LIST

TITLE	PHONE #	GOOD	BAD
SPDS		[ ]	[ ]
ESE		[ ]	[ ]
LAW		[ ]	[ ]
MET		[ ]	[ ]
RMD		[ ]	[ ]
UDAC		[ ]	[ ]
UDAC		[ ]	[ ]
UDAC		[ ]	[ ]
DCPP		[ ]	[ ]
LAW		[ ]	[ ]
MET		[ ]	[ ]
RMD		[ ]	[ ]
UDAC		[ ]	[ ]
ELRM		[ ]	[ ]
RM		[ ]	[ ]
OARM		[ ]	[ ]
RERM		[ ]	[ ]
EARS		[ ]	[ ]
PIRM		[ ]	[ ]
ELRM		[ ]	[ ]
RM		[ ]	[ ]
OARM		[ ]	[ ]
RERM		[ ]	[ ]
EARS		[ ]	[ ]
PIRM		[ ]	[ ]
SPDS		[ ]	[ ]
ESE		[ ]	[ ]
SEC		[ ]	[ ]

TITLE: EMERGENCY OPERATIONS FACILITY EQUIPMENT FUNCTION CHECKLIST

LIGHTS

Make sure that all lights turn on and off. (Second floor only)

Note any problems below:

COPIERS

There are 2 Savin 5040 copy machines in the EOF. One is located in the ELRM office, the other is in the UDAC office. Turn on main power switch located at right side of machine. Then push "on" button on top of the machine. Wait for copier to warm up. A beeping sound will call when machine is ready. Also, the word "READY" will appear on LED display. Set number of copies at 30. Place original in auto-feed. Lighted sign will verify that original is inserted. Press PRINT. Copier should accept original, print 30 copies, and return original. Turn copier off when finished. Check for supplies of copy paper (at least 6 packages). Check for copy machine dispersant and toner (at least 2 bottles of each).

Note any problems or comments below:

PANAFAX

Turn on power. Call Admin. operator [redacted] and ask operator for someone to help test Panafax System. Transmit 1 message from EOF to office. Receive 1 message from office.

Note any problems or comments below:

PACIFIC GAS AND ELECTRIC COMPANY
DEPARTMENT OF NUCLEAR PLANT OPERATIONS
DIABLO CANYON POWER PLANT UNIT NOS. 1 AND 2

TITLE: EMERGENCY OPERATIONS FACILITY EQUIPMENT FUNCTION CHECKLIST

PHONES

Check only those phones that exist on the second floor of the building. Check by using the multi-line phone on the Engineering and Logistics Recovery Manager's desk. Lift the receiver, push each button, look for the button light and listen for the dial tone. Now push the button labeled [redacted] Dial all of the numbers. Then push the button labeled [redacted] Dial all of the numbers (dial just the last 4 digits). For each of the numbers dialed listen for a ringing tone in the earpiece. NOTE: not all of the phones have an audible telephone bell so listen only for the ringing tone in the earpiece. Check that each phone can maintain two-way communications, using the phone checklist on page 3.

Check the phones in the NRC Office and in the State/FEMA Office following the same format as stated above.

Note any problems or comments below:

RADIOS

Check the radios in the OARM Office, ELRM office, and in the Radiological Monitoring Director's Office. Check handie-talkies in RMD's Office. Call Diablo Canyon Unit 1 by phone [redacted] to let control operators know you are going to check the radios. Turn radio on. For the OARM and ELRM office radios with frequency selection, select F2. Pick up handset (radios in OARM Office). Use encoder to call Diablo Canyon control room: code 41, push button 4 and then button 1. Push transmit button on handset or desk top microphone. Transmit message, "Diablo Control, this is the EOF. Radio check, please." Release transmit button and wait for response. If there is no response within 20-30 seconds, repeat encode and message. Make sure power is turned off when finished. For handie-talkies select F5 and call the Radiological Monitoring Director's office, repeat using F6 to check the local receiver.

Note any problems or comments below:

PACIFIC GAS AND ELECTRIC COMPANY
DEPARTMENT OF NUCLEAR PLANT OPERATIONS
DIABLO CANYON POWER PLANT UNIT NOS. 1 AND 2

TITLE: EMERGENCY OPERATIONS FACILITY INVENTORY CHECKLIST

OFFICE SUPPLIES

____ Check contents of all desks and file cabinets for ample quantities of stationary supplies, such as: ball point pens, erasers, felt pens (various colors), rubber bands, paper clips, pencils, scissors, rulers, ruled note paper, stapler removers, scotch tape, carbon paper, assorted plain paper, etc.

OPERATIONS AND ANALYSIS RECOVERY MANAGER

____ 1 Chair
____ 1 desk
____ 1 50 mile map
____ 1 10 mile map
____ 2 Motorola radio sets with encoder
____ 1 multi-line phone
____ Emergency Procedures Vol 3A &3B (3 binders)
____ Emergency Plans Vol 11 (2 binders)
____ Corporate Emergency Response Plan (1)
____ Nuclear Emergency Response Communications Directory (1)
____ 3 clipboards

ENGINEERING AND LOGISTICS RECOVERY MANAGER

____ 6 chairs
____ 3 desks
____ 1 table
____ 1 half-table
____ 2 Motorola radio sets with encoder
____ 3 multi-line phones
____ 2 single-line phones
____ 1 IBM Selectric III
____ 1 Panafax machine
____ 1 Savin 5040 copier
____ 1 bookcase
____ 2 SPDS video monitors with display generators (A&B)
____ 2 SPDS switchboards (A&B)
____ 1 Tektronix 4631 Hard Copy Machine
____ 1 IT Intermediate Terminal ADM-31
____ 1 Tanberg TDC 3000 digital cartridge recorder
____ 1 Tektronix 4006-1 terminal
____ 1 Digital Decwriter III
____ 1 Recall Recorder (plus Giltronix Selectro switch)
____ 1 coatrack
____ 1 5-drawer file
____ 2 clocks
____ 3 status boards (Significant Events, Plant Status, Radiological Status)
____ Operating Procedures Vol 2 (5 binders)
____ Drawing 102037 -- Instrument Locations (1 binder)
____ Drawing 102038 -- Instrument Reference (1 binder)
____ Emergency Procedures Vol 3A & 3B (3 binders)
____ Licenses and Permits Vol 4
____ Radiation and Control Standards and Procedures Vol 7

TITLE: EMERGENCY OPERATIONS FACILITY INVENTORY CHECKLIST

ENGINEERING AND LOGISTICS RECOVERY MANAGER (Continued)

_____ Chemical and Radiochemical Procedures Vol 8 (3 binders)
_____ Temporary Procedures and Instructions Vol 9 (2 binders)
_____ Emergency Plans Vol 11 (2 binders)
_____ Electrical Drawings Units 1 & 2 (2 binders, green)
_____ Operating Valve Indentification Diagrams Units 1 & 2 (2 binders, black)
_____ Piping Schematics Units 1 & 2 (2 binders, orange)
_____ Instrument Schematics Units 1 & 2 (2 binders)
_____ Hosgri Seismic Evaluation (7 binders)
_____ Nuclear Emergency Response Communications Directory (6)
_____ Corporate Emergency Response Plan (1)
_____ State of California Nuclear Power Plant Emergency Response Plan (7 binders)
_____ 3 clipboards

RECOVERY MANAGER'S OFFICE

_____ 11 chairs
_____ 1 desk
_____ 1 8' table
_____ 1 white board
_____ 1 50 mile map
_____ 1 10 mile map
_____ 1 multi-line speaker phone
_____ 1 Black-Net phone
_____ 1 Yellow-Net phone
_____ 1 bookcase
_____ 1 5-drawer file
_____ 1 coatrack
_____ 1 clock
_____ Emergency Procedures Vol 3A & 3B (3 binders)
_____ Emergency Plans Vol 11 (2 binders)
_____ Corporate Emergency Response Plan (2)
_____ Nuclear Emergency Response Communications Directory (1)
_____ 4 clipboards

PG&E LAW OFFICE

_____ 1 chair
_____ 1 desk
_____ 1 multi-line phone
_____ 1 clock
_____ 3 clipboards

TITLE: EMERGENCY OPERATIONS FACILITY INVENTORY CHECKLIST

PG&E PUBLIC INFORMATION

_____ 4 chairs
_____ 2 desks
_____ 1 table
_____ 2 multi-line phones
_____ 1 single-line phone
_____ 1 Yellow-Net Phone
_____ 1 50 mile map
_____ 1 10 mile map
_____ 1 IBM Selectric III
_____ 1 Remington manual typewriter
_____ 1 IBM Electric typewriter dedicated to Media Center (older model)
_____ 1 Sanyo AM-FM cassette radio
_____ 1 AIWA multi-band cassette radio (Model CS-360, Serial #P30509248)
_____ 2 TI Silent 700 portable data terminals
_____ 3 typewriter stands
_____ 1 white board
_____ 5 clipboards

RADIOLOGICAL MONITORING DIRECTOR

_____ 3 chairs
_____ 1 desk
_____ 1 table
_____ 1 Motorola radio set
_____ 2 Motorola Handi-Talkies
_____ 3 Motorola Handi-Talkie Chargers
_____ 1 5-drawer file
_____ 1 50 mile map
_____ 1 10 mile map
_____ 1 Radeco Particulate Air Sampler
_____ 1 County Health Team Radio (Motorola Series 90)
_____ 1 Speedcall Motorola 434 Display
_____ 4 Clipboards

UNIFIED DOSE ASSESSMENT CENTER

_____ 17 chairs
_____ 6 desks
_____ 6 tables
_____ 10 multi-line phones
_____ 6 50 mile maps
_____ 6 10 mile maps
_____ 5 modular shelves with lights
_____ 1 Overlay Base Map with 7 Overlays (Stability Classes A-G)
_____ 1 coatrack
_____ 2 clocks
_____ 1 Savin 5040 copier
_____ 1 Rapidprint Time Clock
_____ 1 IBM Selectric III
_____ 1 Aerovironmental Model 322A Chart Recorder
_____ 1 Aerovironmental Model 324 Telephone Line Receiver

TITLE: EMERGENCY OPERATIONS FACILITY INVENTORY CHECKLIST

UNIFIED DOSE ASSESSMENT CENTER (Continued)

_____ 1 Hewlett-Packard 2621P Terminal
_____ 1 Texas Instruments OMNI 800 Terminal
_____ 1 Hewlett-Packard 9845C Desk-Top Computer
_____ 1 Hewlett-Packard 98041 Disc Interface
_____ 1 Hewlett-Packard 7906 Disc Drive
_____ 1 Hewlett-Packard 13037C Disc Controller
_____ 3 5-drawer files
_____ Emergency Procedures Vol 3A & 3B (3 binders)
_____ Emergency Plans Vol 11 (2 binders)
_____ Nuclear Emergency Response Communications Directory (5)
_____ 4 status boards (Significant Events, UDAC Duty Roster, Field Monitoring Data, Radiological Status)
_____ 16 clipboards

LUNCH ROOM

_____ 27 chairs
_____ 7 tables
_____ 1 kitchenette
_____ 1 clock
_____ 1 100-cup coffee pot
_____ Misc. supplies (coffee, cups, etc.)

STATE/FEMA

_____ 5 chairs
_____ 4 desks
_____ 1 table
_____ 4 multi-line phones
_____ 1 single-line phone
_____ 2 Yellow-Net phones
_____ 2 status boards (STATE, FEMA)
_____ 1 50 mile map
_____ 1 10 mile map
_____ 1 easel

NRC

_____ 12 chairs
_____ 2 desks
_____ 3 tables
_____ 1 10' table
_____ 4 multi-line phones
_____ 1 Red phone
_____ 1 Blue phone
_____ 1 Black-Net phone
_____ 1 Yellow-Net phone
_____ 1 white board
_____ 1 50 mile map
_____ 1 10 mile map
_____ 1 clock

PACIFIC GAS AND ELECTRIC COMPANY
DEPARTMENT OF NUCLEAR PLANT OPERATIONS
DIABLO CANYON POWER PLANT UNIT NOS. 1 AND 2

TITLE: EMERGENCY FACILITY FORMS FILE LIST

CURRENT FORM DATE	NUMBER	TITLE	APPROXIMATE QUANTITY T-1	T-2	T-3	E-1	E-2
_____	69-9221	Emergency Notification Record	20	20	20	20	20
_____	69-9230	Work Sheet for Determination of X/Q	5		20	5	10
_____	69-9248	Post-Earthquake Evaluation Summary	5				
_____	69-9249	Post-Earthquake Level Indication Checklist	5				
_____	69-9250	Post-Earthquake Area Inspection	5				
_____	69-9251	Post-Earthquake Surveillance Test Check List	5				
_____	69-9252	Electrical Power Check List	5				
_____	69-9259	Emergency Environmental Monitoring Field Data Sheet	20	10	10	20	20
_____	69-9260	Work Sheet for Determination of Release Rate or Total Release from Plant Vent Monitoring	5	5	20	5	10
_____	69-9283	Data Sheet for T-G Peak Recording Accelograph	5				
_____	69-9284	Work Sheet for Estimation of Curie Release	5	5	20	5	20
_____	69-9310	Post-Evacuation Vehicle Monitoring Data	10		10	10	5
_____	69-9311	Evacuee Monitoring Data	10		10	10	5
_____	69-9313	Controlled Area and Airborne Area Entry Log	10		20	5	5
_____	69-9315	Contamination Survey Record	10			10	5
_____	69-9316	Radiation Dose Rate Survey Record	5		5	5	5
_____	69-9320	High Radiation Area Entry Log	10			5	5
_____	69-9321	Containment Entry Log	5			5	5
_____	69-9370	Site Emergency Organization Assignment	10			5	5
_____	69-9371	Environmental Monitoring Data Summary	5		5	5	5
_____	69-9392	Skin and Clothing Decontamination	10			10	5
_____	69-9395	Record of Distribution of Potassium Iodine	10		10	10	10
_____	69-9510	Special Work Permit Request	10		20	5	5
_____	69-10059	Individual Accountability Record	20				
_____	69-10060	Summary of Personnel Accountability	10				
_____	69-10262	Radiological Emergency Status Form	20	5	20	20	20
_____	69-10295	Plant Status Emergency Form	20	20	5	20	20
_____	69-10296	Onsite/Offsite Rad. Field Monitoring and PIC Status Form	20	5	20	20	20
_____	69-10297	Emergency Organization Call List (On-site)	5			5	5
_____	69-10298	Emergency Organization Call List (Off-Site)	5			5	5
_____	69-10554	Emergency Exposure Permit	10			10	10
_____	69-10555	Work Sheet for Release Rate Estimation from Containment High Range Area Monitors	5	5	20	5	10
_____	69-10556	Release Rate Summary	5	5	20	5	10
_____	69-10566	Worksheet for Manual Off-Site Dose Calculations	5		5	5	5
_____	69-10581	Initial Emergency Notification Form	5			5	5

PACIFIC GAS AND ELECTRIC COMPANY
DEPARTMENT OF NUCLEAR PLANT OPERATIONS
DIABLO CANYON POWER PLANT UNIT NOS. 1 AND 2

TITLE: EMERGENCY FACILITY FORMS FILE LIST

CURRENT FORM DATE	* NUMBER	TITLE	APPROXIMATE QUANTITY T-1	T-2	T-3	E-1	E-2
_____	69-10582	Emergency Facility Forms File List	2			2	2
_____	69-10766	Control Room Checklist	2				
_____	69-10767	Technical Support Center Checklist	2				
_____	69-10768	Technical Support Center Equipment Quantity Checklist	2				
_____	69-10769	Operational Support Center and Operations Support Center Checklist					
_____	69-10770	Emergency Operations Facility Checklist				2	2
_____	69-10771	Emergency Operations Facility Equipment Quantity Checklist				2	2
_____	None	Personnel List Diablo Canyon Power Plant Department of Nuclear Plant Operations				2	2
_____	R-2	Appendix 2 - Instructions for Estimating Noble Gas Release Rate Using Plant Vent Monitors RE-14 or RE-29	5	5	5	5	5
_____	R-2	Appendix 3 - Instructions for Estimating Iodine Release Rate Using Plant Vent Monitor RE-24	5	5	5	5	5
_____	R-2	Appendix 4 - Use of Containment Air Sample Data % Estimate Release Rate	5	5	5	5	5
_____	R-2	Appendix 5 - Use of RCS Coolant Sample During S/G Tube Rupture Accident	5	5	5	5	5

File Locations:

T-1 = TSC-1 = Office Area File
T-2 = TSC-2 = Operations Area File
T-3 = TSC-3 = Computation Area File
E-1 = EOF-1 = ELRM Office File
E-2 = EOF-2 = EARS Office File

PACIFIC GAS AND ELECTRIC COMPANY
CORPORATE EMERGENCY RESPONSE PLAN

IMPLEMENTING PROCEDURE LIST

Number	Revision	Date	Title
1.1	02	07/14/83	Activation of the Corporate Emergency Response Organization
1.2	02	07/15/83	Activation of the Corporate Incident Response Center
2.1	02	07/25/83	Plan Maintenance
2.2	01	01/13/84	Emergency Preparedness Training Program
3.1	02	07/29/83	Governmental Relations
3.2	03	08/25/83	Corporate Communications Department
3.3	02	07/29/83	Law
3.4	02	07/26/83	Insurance
3.5	02	07/22/83	Safety, Health and Claims
3.6	02	07/20/83	Security
3.7	01	09/06/83	Personnel
4.1	02	07/25/83	Materials
4.2	02	07/14/83	Telecommunications
4.3	03	08/30/83	Radiological Analysis and Protection
4.4	02	08/05/83	General Construction
4.5	02	08/30/83	Engineering and Technical Support
4.6	02	09/16/83	Computer Systems and Services
4.7	03	07/29/83	Nuclear Plant Operations
4.8	02	07/28/83	Division Support
4.9	02	07/22/83	Quality Assurance

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PACIFIC GAS and ELECTRIC COMPANY
CORPORATE EMERGENCY RESPONSE PLAN

IMPLEMENTING PROCEDURE

NUMBER: 2.2
REVISION: 1
DATE: 01/13/84
PAGE 01 OF 08

TITLE: EMERGENCY PREPAREDNESS TRAINING PROGRAM

RESPONSIBILITY	SIGNATURE / TITLE	DATE
PREPARED BY	P. A. Mack SR. NUCLEAR GENERATION ENGINEER EMERGENCY PLANNING	1/5/84
REVIEWED AND CONCURRED BY	W. Thompson SUPERVISING NUCLEAR GENERATION ENGINEER PERSONNEL & ENVIRONMENTAL SAFETY	1/9/84
REVIEWED AND CONCURRED BY	J. D. Shiffer MANAGER, NUCLEAR PLANT OPERATIONS	1/10/84
APPROVED BY	J. D. Shiffer VICE PRESIDENT, NUCLEAR POWER GENERATION	1/11/84
APPROVED BY	E. B. Ramsey Jr. CHAIRMAN, PRESIDENT'S NUCLEAR ADVISORY COMMITTEE	1/17/84

ORGANIZATIONAL OUTLINE

I. SCOPE

II. DISCUSSION

III. RESPONSIBILITIES

IV. INSTRUCTIONS

V. REFERENCES

VI. ATTACHMENTS

I. SCOPE

The scope of this Implementing Procedure is to describe the responsibilities and requirements for the Corporate Emergency Response Plan training program as required by 10CFR50.47(b)(15).

II. DISCUSSION

A. General

This Implementing Procedure provides instructions for the implementation of a coordinated annual training program for Corporate Emergency Response Organization (CERO) personnel with assignments under the Corporate Emergency Response Plan (CERP). CERO training should be accomplished in three phases with activities in both a classroom atmosphere and participation in drills and exercises.

B. Definitions of Terms

1. Training activity:
   A training activity is the process by which the skills of individual personnel are improved and refined to meet or exceed prescribed qualification standards for the performance of their specified duties and responsibilities under the CERP.

2. Drill:
   A drill is a supervised instruction period aimed at developing and maintaining required skills for a particular task/assignment.

3. Exercise:
   An exercise is an event which tests a major portion of the basic elements within the CERP and demonstrates the capability of the CERO to respond to an emergency.

C. Corporate Emergency Response Organization Training Program

1. Program Description

   In order to maintain emergency preparedness training requirements as required by NRC regulation 10CFR50.47(b)(15), CERO personnel training may be accomplished in three training activity phases, as described below:

Phase	Activity Description
I	General introductory course to explain the purpose and function of the CERP in support of the Diablo Canyon Power Plant Emergency Plan.
II	Courses designed to provide CERO personnel with specific training instruction for executing assigned duties and responsibilities as identified in Procedure Attachment 1, "CERO Training Program Courses".
III	Drills and exercises designed to provide CERO personnel with "hands on" experience using appropriate facilities, equipment, and procedures.

NOTE: CERO training, drills, and exercises will be conducted in coordination with DCPP training activities.

2. Program Objectives

The training program objectives are to provide for the following types of training:

a. Corporate emergency preparedness management training for those individuals assigned to perform the principal and alternate functions of the CERO Departmental/Functional Group Coordinators and Recovery Manager.

b. Corporate emergency preparedness procedure training for those individuals assigned specific duties and responsibilities as identified in the implementing procedures.

c. Corporate emergency preparedness refresher training courses for all emergency response personnel activated under the Corporate Emergency Response Plan.

3. Program Requirements

a. Initial training

1) General Office personnel should complete the courses designated for their assigned CERO emergency plan title(s) as specified in Procedure Attachment 2, "CERO Personnel Classroom Training Requirements" for each CERP Implementing Procedure.

2) Non-General Office personnel may complete the required course training for their assigned CERO emergency plan title(s) as specified in Procedure Attachment 2, "CERO Personnel Classroom Training Requirements" by completing Procedure Attachment 3, "Certification of Self-Training Completion".

b. Refresher training

CERO personnel maintain their "trained on an annual basis" status by participating in either of the following activities:

1) Scheduled (announced or unnanounced) drills throughout the year, the Annual Emergency Preparedness Exercise Dress Rehearsal or Exercise; or

2) Applicable phase II training courses as specified in Procedure Attachment 2, "CERO Personnel Classroom Training Requirements".

3) Completion of Procedure Attachment 3, "Certification of Self-Training Completion", as requested.

D. Program Conduct & Documentation

1. CERO emergency preparedness training program will be conducted and coordinated with other Departments.

2. Training courses should be conducted in accordance with NPO Administrative Procedures.

3. Approved lesson plans for CERO training courses should be used in the conduct of all classroom training activities.

4. All CERO classroom training activities should be documented with the following records:

a. Attendance Records.

b. Correlation of attendance with training requirements.

c. Maintain status of training completed by individuals.

III. RESPONSIBILITIES

Personnel with assigned responsibilities under this Procedure, as identified below by their non-emergency titles, should perform their assigned tasks as detailed in the Procedure Instructions section below.

IV. INSTRUCTIONS

A. Supervising Nuclear Generation Engineer, Personnel and Environmental Safety

1. Schedule, coordinate, and implement specialized training programs to instruct and qualify those personnel responsible for implementing the Corporate Emergency Response Plan. The scope, nature, and frequency of those programs shall be specified for all CERO personnel.

2. Ensure that all drills are supervised and evaluated by a qualified drill instructor and that the basic objective(s) of each drill are met.

3. Ensure CERO participation in the scheduled monthly communications drills between DCPP and the San Luis Obispo County Sheriff's Office, State Office of Emergency Services and NRC. Such participation shall range from:

   a. Limited alerting and notification of key CERO personnel and Departmental/Functional Group Coordinators; to

   b. Full communications alerting/notification of all CERO personnel and possible activation of selected emergency response facilities.

B. Manager, Nuclear Plant Operations Department

1. Remain cognizant of Corporate emergency preparedness training courses, drills, and exercises to ensure that effective and efficient interfaces between the Site and Corporate emergency response organizations will be maintained during an emergency.

2. Direct the Supervising Nuclear Generation Engineer, P&ES Section, to schedule, coordinate, and implement the CERP Training Program.

3. Ensure that critiques of Corporate emergency preparedness drills and exercises are conducted as soon as possible after their performance to ensure that the emergency response actions of the various Departments/Functional Groups within the Corporate Emergency Response Organization are properly evaluated, and any corrective action, if required, is implemented.

C. Vice President, Nuclear Power Generation Department

1. Provide overall coordination of required emergency preparedness training programs and drills for Company emergency response personnel involved in any way with the Corporate Emergency Response Organization during an event requiring the activation of the Corporate Emergency Response Plan.

D. Departmental/Functional Group Coordinators

1. Participate in the applicable CERP Emergency Preparedness Training Program activities to maintain familiarity with the CERP, its Implementing Procedures, and the Nuclear Emergency Response Communications Directory.

2. Ensure that respective CERO Departmental/Functional Group personnel participate in and maintain training requirements.

E. President's Nuclear Advisory Committee

The President's Nuclear Advisory Committee will oversee required emergency preparedness drills and exercises.

V. REFERENCES

A. Diablo Canyon Power Plant Emergency Plan.

B. Corporate Emergency Response Plan.

C. Nuclear Power Generation Manual, Volume 3, "Nuclear Plant Operations Department Procedures Manual", Chapter II.

VI. ATTACHMENTS

1. CERO Training Program Courses.

2. CERO Personnel Classroom Training Requirements.

3. Certification of Self-Training Completion.

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TITLE

EMERGENCY PREPAREDNESS TRAINING PROGRAM

CERO Training Program Courses

Training Phase	Course Number	Course Title	Applicable CERP IP
I.		General Emergency Preparedness Program Overview Course	
	EPG-201	Corporate Emergency Response Plan and Diablo Canyon Power Plant Emergency Plan Overview	ALL
II.		Departmental/Functional Group Courses	
	EGP-210	Governmental Relations Dept. CERP IP Review	3.1
	EPG-215	Corporate Communications Dept. CERP IP Review	3.2
	EPG-220	Law Dept. CERP IP Review	3.3
	EPG-225	Insurance Dept. CERP IP Review	3.4
	EPG-230	Safety, Health, and Claims Dept. CERP IP Review	3.5
	EPG-235	Security Dept. CERP IP Review	3.6
	EPG-240	Personnel Dept. CERP IP Review	3.7
	EPG-245	Materials Dept. CERP IP Review	4.1
	EPG-250	Telecommunications Dept. CERP IP Review	4.2
	EPG-255	Radiological Analysis and Protection Group CERP IP Review	4.3
	EPG-260	General Construction Dept. CERP IP Review	4.4
	EPG-265	Engineering and Technical Support Group CERP IP Review	4.5
	EPG-270	Computer Systems and Services Dept. CERP IP Review	4.6
	EPG-275	Nuclear Plant Operations Dept. CERP IP Review	4.7
	EPG-280	Division Support Group CERP IP Review	4.8
	EPG-285	Quality Assurance Dept. CERP IP Review	4.9
	EPG-290	CERO Management Personnel Responsibilities	1.1
		Miscellaneous Courses	
	EPG-202	SLO County Nuclear Power Plant Emergency Response Plan Overview	NONE
	EPG-203	NOTEPAD Computer Conferencing System	3.2
	EPG-204	CIRC Administrative Support Staff Responsibilities	1.2

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PACIFIC GAS and ELECTRIC COMPANY
CORPORATE EMERGENCY RESPONSE PLAN

IMPLEMENTING PROCEDURE

NUMBER: 2.2
REVISION: 1
ATTACHMENT: 2
DATE: 01/13/84

TITLE EMERGENCY PREPAREDNESS TRAINING PROGRAM

CERO Personnel Classroom Training Requirements
CERO MANAGEMENT (CERP IP 1.1)

EMERGENCY PLAN TITLE	EMERGENCY PREPAREDNESS COURSE (EPG) NUMBER																			
	201	202	203	204	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280	285	290
Recovery Manager	●	x																●			●
Corporate Emergency Coordinator	●	x																			●
Corp. Technical and Logistical Coordinator	●	x																●			●
Corp. Liaison Coordinator	●	x		●														●			●
Public Information Recovery Mgr.	●	x				●															●
Radiological Emergency Recovery Manager	●	x												●				●			●
Engineering and Logistics Recovery Manager	●	x																●			●
Operations and Analytical Recovery Manager	●	x																●			●
Electric System Dispatcher - Shift Supervisor	●	x																			
Communications PBX Operator	●	x																			

x = As Needed

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PACIFIC GAS and ELECTRIC COMPANY
CORPORATE EMERGENCY RESPONSE PLAN

IMPLEMENTING PROCEDURE

TITLE EMERGENCY PREPAREDNESS TRAINING PROGRAM

NUMBER: 2.2
REVISION: 1
ATTACHMENT: 2
DATE: 01/13/84

CERO Personnel Classroom Training Requirements
ACTIVATION OF THE CORPORATE INCIDENT RESPONSE CENTER (CERP IP 1.2)

EMERGENCY PLAN TITLE	EMERGENCY PREPAREDNESS COURSE (EPG) NUMBER																			
	201	202	203	204	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280	285	290
Corp. Liaison Coordinator	●	x		●														●			●
CIRC Administrative Support Group Coordinator	●		●	●																	
CIRC Administrative Support Group Coordinator Staff	●		●	●																	
CIRC Telephone Operator	●			●																	

x = As Needed

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PACIFIC GAS and ELECTRIC COMPANY
CORPORATE EMERGENCY RESPONSE PLAN

IMPLEMENTING PROCEDURE

TITLE EMERGENCY PREPAREDNESS TRAINING PROGRAM

CERO Personnel Classroom Training Requirements
GOVERNMENTAL RELATIONS DEPARTMENT (CERP IP 3.1)

EMERGENCY PLAN TITLE	EMERGENCY PREPAREDNESS COURSE (EPG) NUMBER																			
	201	202	203	204	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280	285	290
Corp. Governmental Relations Coordinator	●	x			●																●
Governmental Relations Representatives	●	x			●																

x = As Needed

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PACIFIC GAS and ELECTRIC COMPANY
CORPORATE EMERGENCY RESPONSE PLAN

IMPLEMENTING PROCEDURE

TITLE EMERGENCY PREPAREDNESS TRAINING PROGRAM

CERO Personnel Classroom Training Requirements
CORPORATE COMMUNICATIONS DEPARTMENT (CERP IP 3.2)

EMERGENCY PLAN TITLE	EMERGENCY PREPAREDNESS COURSE (EPG) NUMBER																			
	201	202	203	204	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280	285	290
Corp. Public Information Coord.	●	x				●															●
Media Center Representative	●	x	●			●															
News Director	●	x	●			●															
Interim Public Information Recovery Manager	●	x	●			●															
Public Information Recovery Mgr.	●	x	●			●															●
Public Information Specialist	●	x	●			●															
Technical Advisor to the Public Information Recovery Manager	*																				
Technical Advisor to the News Director	*					●															

x = As Needed
* = DCPP Course EPD 500

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PACIFIC GAS and ELECTRIC COMPANY
CORPORATE EMERGENCY RESPONSE PLAN

IMPLEMENTING PROCEDURE

TITLE EMERGENCY PREPAREDNESS TRAINING PROGRAM

CERO Personnel Classroom Training Requirements
LAW DEPARTMENT (CERP IP 3.3)

EMERGENCY PLAN TITLE	EMERGENCY PREPAREDNESS COURSE (EPG) NUMBER																			
	201	202	203	204	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280	285	290
Corporate Law Department Coord.	●						●														●
Onsite Attorney	●						●														
Staff Members	●						●														

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PACIFIC GAS and ELECTRIC COMPANY
CORPORATE EMERGENCY RESPONSE PLAN

IMPLEMENTING PROCEDURE

NUMBER: 2.2
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DATE: 01/13/84

TITLE EMERGENCY PREPAREDNESS TRAINING PROGRAM

CERO Personnel Classroom Training Requirements
INSURANCE DEPARTMENT (CERP IP 3.4)

EMERGENCY PLAN TITLE	EMERGENCY PREPAREDNESS COURSE (EPG) NUMBER																			
	201	202	203	204	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280	285	290
Corporate Insurance Coordinator	●							●													●
Coord. of Property Loss Control	●							●													
Coord. of Insurance Administration	●							●													

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PACIFIC GAS and ELECTRIC COMPANY
CORPORATE EMERGENCY RESPONSE PLAN

IMPLEMENTING PROCEDURE

NUMBER: 2.2
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DATE: 01/13/84

TITLE EMERGENCY PREPAREDNESS TRAINING PROGRAM

CERO Personnel Classroom Training Requirements
SAFETY, HEALTH, AND CLAIMS DEPARTMENT (CERP IP 3.5)

EMERGENCY PLAN TITLE	EMERGENCY PREPAREDNESS COURSE (EPG) NUMBER																			
	201	202	203	204	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280	285	290
Corp. Safety, Health, and Claims Coordinator	●								●												●
Director - Safety Engineering	●								●												
General Office Claims Attorney	●								●												
Senior Health Physicist	●								●												
Senior Claims Investigator	●								●												
Field Claims Attorney	●								●												
Field Claims Investigator	●								●												
Senior Fire Protection Engineer	●								●												
Safety Coordinator	●								●												

CERO Personnel Classroom Training Requirements
SECURITY DEPARTMENT (CERP IP 3.6)

EMERGENCY PLAN TITLE	EMERGENCY PREPAREDNESS COURSE (EPG) NUMBER																			
	201	202	203	204	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280	285	290
Corporate Security Coordinator	●									●											●
Building Security Supervisor	●									●											
Security Representatives	●									●											

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PACIFIC GAS and ELECTRIC COMPANY
CORPORATE EMERGENCY RESPONSE PLAN

IMPLEMENTING PROCEDURE

NUMBER: 2.2
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TITLE EMERGENCY PREPAREDNESS TRAINING PROGRAM

CERO Personnel Classroom Training Requirements
PERSONNEL DEPARTMENT (CERP IP 3.7)

EMERGENCY PLAN TITLE	EMERGENCY PREPAREDNESS COURSE (EPG) NUMBER																			
	201	202	203	204	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280	285	290
Corporate Personnel Coordinator	●										●										●
On Site Personnel Representative	●										●										
Personnel Representatives	●										●										

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PACIFIC GAS and ELECTRIC COMPANY
CORPORATE EMERGENCY RESPONSE PLAN

IMPLEMENTING PROCEDURE

TITLE EMERGENCY PREPAREDNESS TRAINING PROGRAM

CERO Personnel Classroom Training Requirements
MATERIALS DEPARTMENT (CERP IP 4.1)

EMERGENCY PLAN TITLE	EMERGENCY PREPAREDNESS COURSE (EPG) NUMBER																			
	201	202	203	204	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280	285	290
Corporate Materials Coordinator	●											●									●
Procurement Coordinator	●											●									
Transportation Coordinator	●											●									

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PACIFIC GAS and ELECTRIC COMPANY
CORPORATE EMERGENCY RESPONSE PLAN

IMPLEMENTING PROCEDURE

TITLE EMERGENCY PREPAREDNESS TRAINING PROGRAM

CERO Personnel Classroom Training Requirements
TELECOMMUNICATIONS DEPARTMENT (CERP IP 4.2)

EMERGENCY PLAN TITLE	EMERGENCY PREPAREDNESS COURSE (EPG) NUMBER																			
	201	202	203	204	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280	285	290
Corporate Telecommunications Coordinator	●												●								●
Telecommunications Engineering Support Coordinator	●												●								
Telecommunications Maintenance Support Coordinator	●												●								
Repair Team	●												●								
Wire Chief	●												●								
Telephone Operators (Chief)	●												●								

CERO Personnel Classroom Training Requirements
RADIOLOGICAL ANALYSIS AND PROTECTION GROUP (CERP IP 4.3)

EMERGENCY PLAN TITLE	EMERGENCY PREPAREDNESS COURSE (EPG) NUMBER																				
	201	202	203	204	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280	285	290
Radiological Emergency Recovery Manager	●	x												●				●			●
Emergency Supervising Engineer	●	x												●							
Radiological Monitoring Director	●	x												●							
CIRC EARS Operator	●	x												●							
EOF EARS Operator	●	x												●							
Supervising Meteorologist	●	x												●							
Near Site Meteorologist	●	x												●							
General Office Meteorologist	●	x												●							
DER Laboratory Director	●	x												●							
EOF Secretary	●	x												●							
UDAC Liaison	●	x												●							
EOF Administrative Staff	●													●							

x = As Needed

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PACIFIC GAS and ELECTRIC COMPANY
CORPORATE EMERGENCY RESPONSE PLAN

IMPLEMENTING PROCEDURE

NUMBER: 2.2
REVISION: 1
ATTACHMENT: 2
DATE: 01/13/84

TITLE EMERGENCY PREPAREDNESS TRAINING PROGRAM

CERO Personnel Classroom Training Requirements
GENERAL CONSTRUCTION DEPARTMENT (CERP IP 4.4)

EMERGENCY PLAN TITLE	EMERGENCY PREPAREDNESS COURSE (EPG) NUMBER																				
	201	202	203	204	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280	285	290
Corporate Construction Coordinator	●														●						●
Site Construction Coordinator	●														●						
Manager, Line Department	●														●						
Manager, Civil-Hydro Department	●														●						
Manager, Gas-Mechanical Services Department	●														●						
Manager, Personnel and Clerical Services Department	●														●						

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PACIFIC GAS and ELECTRIC COMPANY
CORPORATE EMERGENCY RESPONSE PLAN

IMPLEMENTING PROCEDURE

TITLE EMERGENCY PREPAREDNESS TRAINING PROGRAM

CERO Personnel Classroom Training Requirements
ENGINEERING DEPARTMENT (CERP IP 4.5)

EMERGENCY PLAN TITLE	EMERGENCY PREPAREDNESS COURSE (EPG) NUMBER																			
	201	202	203	204	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280	285	290
Corporate Engineering Coordinator	●															●					●
Chief, Design Drafting	●															●					
Chief Mechanical and Nuclear Engineer	●															●					
Chief Electrical Engineering	●															●					
Chief Civil Engineering	●															●					

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PACIFIC GAS and ELECTRIC COMPANY
CORPORATE EMERGENCY RESPONSE PLAN

IMPLEMENTING PROCEDURE

TITLE EMERGENCY PREPAREDNESS TRAINING PROGRAM

NUMBER: 2.2
REVISION: 1
ATTACHMENT: 2
DATE: 01/13/84

CERO Personnel Classroom Training Requirements
COMPUTER SYSTEMS AND SERVICES DEPARTMENT (CERP IP 4.6)

EMERGENCY PLAN TITLE	EMERGENCY PREPAREDNESS COURSE (EPG) NUMBER																			
	201	202	203	204	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280	285	290
Corporate Computer Applications Coordinator	●																●				●
Supervising Engineering Computer Applications Specialist	●																●				
Supervising Computer Technology Specialist	●																●				
Supervising Computer Operations Specialist	●																●				
Supervising Information Systems Specialist	●																●				
Administrative Support Coordinator	●																●				
Information Systems Specialist	●																●				
Materials Management Software Specialist	●																●				
Nuclear Records Management Specialist	●																●				
Emergency Computer Applications Functional Specialist	●																●				
Time Sharing Operations Processing Resource Specialist	●																●				
Computer Technology Software Specialist	●																●				
Computer Operations Shift Supervisors	●																●				

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PACIFIC GAS and ELECTRIC COMPANY
CORPORATE EMERGENCY RESPONSE PLAN

IMPLEMENTING PROCEDURE

NUMBER: 2.2
REVISION: 1
ATTACHMENT: 2
DATE: 01/13/84

TITLE EMERGENCY PREPAREDNESS TRAINING PROGRAM

CERO Personnel Classroom Training Requirements
NUCLEAR PLANT OPERATIONS DEPARTMENT (CERP IP 4.7)

EMERGENCY PLAN TITLE	EMERGENCY PREPAREDNESS COURSE (EPG) NUMBER																				
	201	202	203	204	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280	285	290
Recovery Manager	●	x																●			●
Corporate Liaison Coordinator	●	x		●														●			●
Corporate Technical and Logistical Coordinator	●	x																●			●
Operations and Analytical Recovery Manager	●	x																●			●
Radiological Emergency Recovery Manager	●	x												●				●			●
Engineering and Logistics Recovery	●	x																●			●
Emergency Personnel Access Coordinator	●																	●			

x = As Needed

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PACIFIC GAS and ELECTRIC COMPANY
CORPORATE EMERGENCY RESPONSE PLAN

IMPLEMENTING PROCEDURE

NUMBER: 2.2
REVISION: 1
ATTACHMENT: 2
DATE: 01/13/84

TITLE EMERGENCY PREPAREDNESS TRAINING PROGRAM

CERO Personnel Classroom Training Requirements
DIVISION SUPPORT GROUP (CERP IP 4.8)

EMERGENCY PLAN TITLE	EMERGENCY PREPAREDNESS COURSE (EPG) NUMBER																			
	201	202	203	204	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280	285	290
Corporate Division Coordinator	●	x																	●		●

x = As Needed

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PACIFIC GAS and ELECTRIC COMPANY
CORPORATE EMERGENCY RESPONSE PLAN

IMPLEMENTING PROCEDURE

TITLE EMERGENCY PREPAREDNESS TRAINING PROGRAM

CERO Personnel Classroom Training Requirements
QUALITY ASSURANCE DEPARTMENT (CERP IP 4.9)

EMERGENCY PLAN TITLE	EMERGENCY PREPAREDNESS COURSE (EPG) NUMBER																				
	201	202	203	204	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280	285	290
Corporate Quality Assurance Coordinator	●																			●	●
Records Management Coordinator	●																			●	
Senior Quality Engineer - Program Development	●																			●	
Senior Quality Engineer - Auditing	●																			●	
Quality Assurance Supervisor	●																			●	
Design Drafting Records Coordinator	●																			●	

CERTIFICATION OF SELF-TRAINING COMPLETION

The Corporate Emergency Response Plan Implementing Procedure 2.2, "Emergency Preparedness Training Program" makes provision for personnel with responsibilities assigned to them in the Corporate Emergency Response Organization to comply with the required training by certifying that they have:

1. Familiarized themselves with the "Nuclear Emergency Response Communications Directory" and its contents, and

2. Read their applicable CERP Implementing Procedure(s).

This "Certification of Self-Training Completion" is provided to document my completion of the above training requirements and that I have reviewed and understand the following CERP Implementing Procedures:

CERP IP NUMBER	REVISION NUMBER	CERP IMPLEMENTING PROCEDURE TITLE

SIGNATURE _____ DATE _____

NAME (PRINTED) _____

CERO TITLE _____

Return to T. A. Mack, Rm. 1403, 77 Beale St.