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PG&E Letter DCL-01-113

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Docket No. 50-275, OL-DPR-80
Docket No. 50-323, OL-DPR-82
Diablo Canyon Units 1 and 2
Emergency Plan Implementing Procedure Update

Dear Commissioners and Staff:

In accordance with Section V, "Implementing Procedures," of 10 CFR 50, Appendix E, enclosed is an update to the emergency plan implementing procedures for Diablo Canyon Power Plant, Units 1 and 2.

As provided under 10 CFR 50.54(q), the changes in this update do not decrease the effectiveness of the emergency plan and, therefore, have been made without prior NRC approval. The plan, as changed, continues to meet the standards of 10 CFR 50.47(b) and 10 CFR 50, Appendix E.

If there are any questions regarding this update, please contact Mr. Mark Lemke of my staff at (805) 545-4787.

Sincerely,

for James R. Becker

Enclosures

cc: Ellis W. Merschoff - w/a (2)
David L. Proulx
Girija S. Shukla

DDM/1345

A045

LOCATION OF PRIVACY/PROPRIETARY INFORMATION IN EMERGENCY PLAN IMPLEMENTING PROCEDURES FOR DIABLO CANYON POWER PLANT, UNITS 1 AND 2

Procedure Number	Privacy/ Proprietary Information	Title/Location of Privacy/Proprietary Information
EP RB-15 Revision 10	No	Post Accident Sampling System

DIABLO CANYON POWER PLANT EMERGENCY PLAN IMPLEMENTING PROCEDURES

Table of Contents - Emergency Plan Implementing Procedures
Volume 1A (OM10.ID3 only), Volume 1B (OM10.DC1 only), and Volume 3B

*** Procedure included in this submittal**

TITLE: Post Accident Sampling System

10·11·01
EFFECTIVE DATE

PROCEDURE CLASSIFICATION: QUALITY RELATED

1. SCOPE

1.1 This procedure describes the emergency actions and analysis procedures, CAP P-1, CAP P-2, CAP P-3, CAP P-5, CAP P-6, CAP P-9, and CAP P-10, used to ensure the safe and reliable sampling and analysis of reactor coolant, containment sump (RHR pumps discharge), and containment atmosphere during accident conditions.

1.2 The purpose of this procedure is to define the initial actions taken when a decision is made by the Site Emergency Coordinator to obtain a post-accident sample using the Post-Accident Sample System (PASS). PASS samples are not required for immediate response. PASS samples are now intended for accident recovery.

1.3 This procedure guides, with consideration of plant emergency radiation hazards, the PASS team to access and obtain samples from the PASS room. It also guides the team to withdraw from the PASS room upon sample acquisition.

1.4 This is a "PERIODIC USE" procedure.

2. DISCUSSION

2.1 This procedure contains the implementing steps to prepare for PASS sampling during recovery from emergency conditions. This procedure is to be used in conjunction with the CAP-P series procedures which contain the technical instructions to be followed for obtaining and analyzing a sample.

2.2 Throughout the EP RB-15 and CAP-P sampling procedures, check-off boxes are provided to assist in keeping track of steps completed. The use of this aid is not required but is recommended.

3. RESPONSIBILITIES

3.1 It is the responsibility of the Site Chemistry Coordinator to supervise the utilization of the PASS laboratory for post-accident sampling and analysis.

4. PREREQUISITES

4.1 The Site Emergency Coordinator should pre-plan post-accident sampling with the Radiological Advisor and the Site Chemistry Coordinator prior to ordering a plant entry (i.e., prior to deciding to collect a post-accident sample) when unusually hazardous radiation or contamination levels are known or suspected to exist.

4.2 A sufficient number of properly qualified personnel to complete the task should be available prior to making the post-accident sample decision. This might include:

4.2.1 Two people on the PASS team qualified as C&RP Technicians.

4.2.2 A sample transporter qualified as an unescorted Radiation Worker.

4.2.3 A count room qualified person in the TSC lab.

4.3 The movable shield in the 85' penetration area may be closed, blocking normal access to the room. This will necessitate ingress and egress across the RCA boundary. Performance of this procedure may require the transfer of radioactive samples to non-RCA's. For these reasons this procedure involves exemptions from certain routine RCA access requirements. Personnel implementing this procedure should be covered by an SWP or RWP during an accident.

4.4 The Work Permit will specify protective equipment. Unless conditions warrant less stringent requirements, it is suggested that full PC's, SCBA's, and accident dosimetry be worn. Accident dosimetry includes: 0-200 mR PICS or PEDS, 0-5 R PICS or PEDS, finger rings (not necessary during drills).

4.5 The PASS team will make a post-accident entry to the plant only when directed by supervision and when possessing a high range portable survey meter to permit surveying into areas of unknown radiological conditions. Normal range survey meters may also be carried.

4.6 The PASS team should be informed of plant status as it pertains to significant hazards, both radiological and non-radiological, along access routes.

4.7 Exposure hazards, both airborne and direct radiation, in the PASS room should be monitored remotely for pre-entry status and locally for tracking while sampling.

4.7.1 If functional, use one of the Eberline Control Terminal(s) to remotely address the SPING air monitor in the PASS room, which can be read locally.

4.7.2 Area radiation monitor RE-48, in the PASS room, can be read in the Control Room or locally.

4.8 Communications are vital during a plant emergency. Entry teams must be able to communicate with the Control Room and appropriate supervision.

4.9 Chemistry Technicians have the AC-4 key required for access to areas and equipment related to this procedure and have security key cards to enter doors, Unit #1 192 and 116, Unit # 2 192-2 and 197-2. The PASS team should take the master keys for these doors which are in the lock box in the Rad. Foremen's office for use if the keycards fail. Keys for the containment isolation valves, FCV-235-240, and FCV-698-700, are located in the PASS room in a lock box. The lock box is located on the side of the chemical analysis supply cabinet. During accident conditions break the glass and remove the keys.

NOTE: For training or sampling obtain the individual valve keys from the Shift Foreman. The lockbox contains the following keys: FCV-235 – FCV-240, FCV-698 – FCV-700.

4.10 Prior to initiating a system purge for the purpose of collecting a sample, the Shift Foreman shall be notified of the particular system to be sampled and to open or check open the applicable containment penetration valves.

4.11 Notify operations prior to opening any of the following containment isolation valves: FCV-235, 236, 237, 238, 239, 240, 698, 699, 700. Also notify operations when the valves are closed at the conclusion of the sampling and flushing exercises.

NOTE: A technician shall remain in the PASS room and have the ability to communicate with the control room both by telephone and pager when FCV-235-240 or FCV-698-700 are open during PASS sampling under normal operation as per OP O-12. In the event of a reactor trip close the isolation valves immediately.

4.12 Unforeseen circumstances may exist during emergency situations that may require deviations to the procedure to obtain a specific sample. Changes may be made at the direction of Chemistry supervision and will be logged in the PASS log book.

5. PRECAUTIONS

5.1 General Sampling Technique

5.1.1 All sample lines must be purged for sufficient time to ensure that a representative sample is obtained prior to collection of the sample.

5.1.2 An ion chamber dose rate meter should be used to monitor dose rates in the PASS Room and, in particular, directly in front of the sample panel while sample purge is in progress or being initiated.

5.1.3 Follow all instructions on the applicable SWP/RWP for obtaining samples.

5.1.4 Valve positions should always be checked in the closed direction.

5.2 Do not store the sample cart cask and sample transfer cask north of the CASP/CAP shield door in unit #1 PASS or south of the CASP/CAP shield door in unit #2 PASS. This will prevent seismic interaction between the casks and panels PM-78 and PM-79.

5.3 Particularly hazardous or unexpected conditions may occur in post-accident situations. Direction by appropriate supervision may augment or supersede portions of this and the CAP P series procedures because every possibility cannot be anticipated.

6. INSTRUCTIONS

6.1 Access to PASS Room Area

PASS Team Members shall be briefed on the access route to the PASS Room during accident conditions. The correct route to take will be entered on the POST-LOCA BRIEF CHECKLIST. This checklist is included at the end of this procedure, Attachment 11.1.

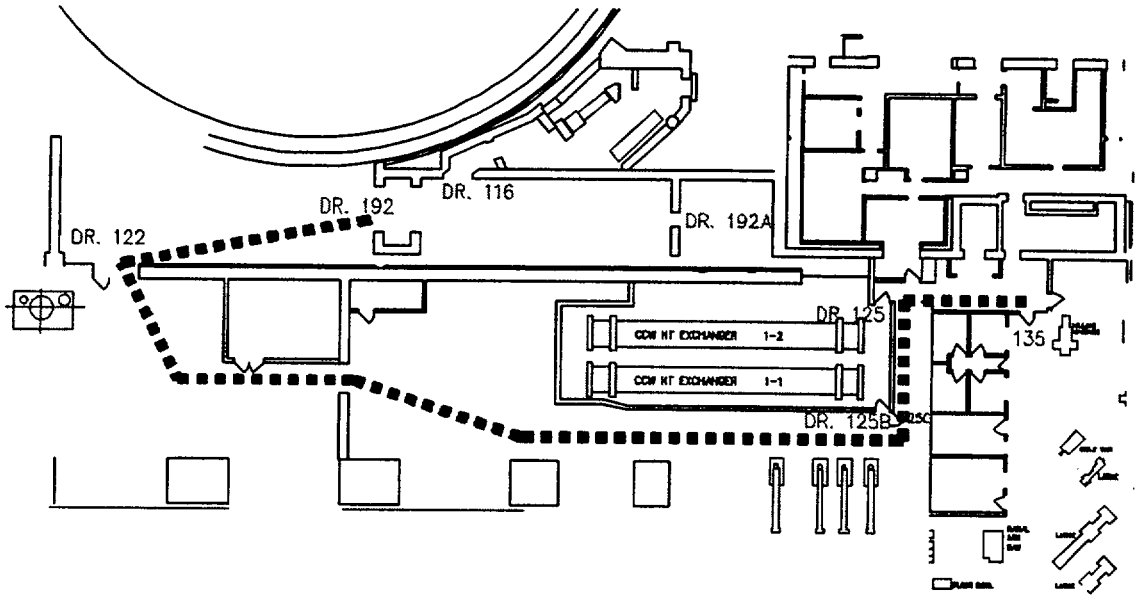
The Diablo Canyon Shielding Review indicates that the following routes might minimize exposures.

6.1.1 Via Turbine Building at 85' Elevation

a. Unit 1

Starting at the Cold Machine Shop proceed into the hallway to door #125C, proceed north to door #122 and exit building. From here turn south and enter door #192 to the Motor Repair Shop.

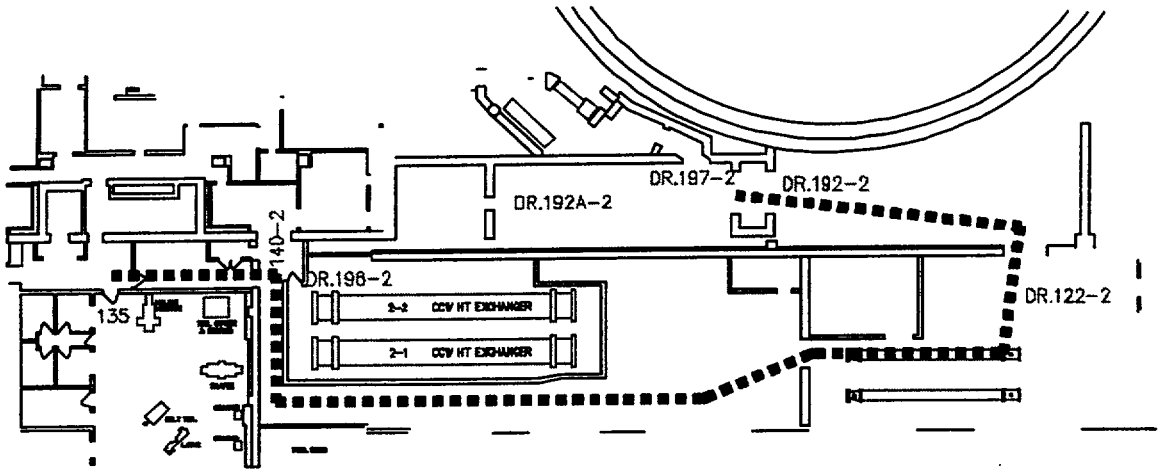
FIGURE 1a



b. Unit 2

Starting at the Cold Machine Shop proceed into the hallway to door #140, proceed south to door #122 and exit building. From here turn north and enter door #192-2 to the Motor Repair Shop.

FIGURE 1b

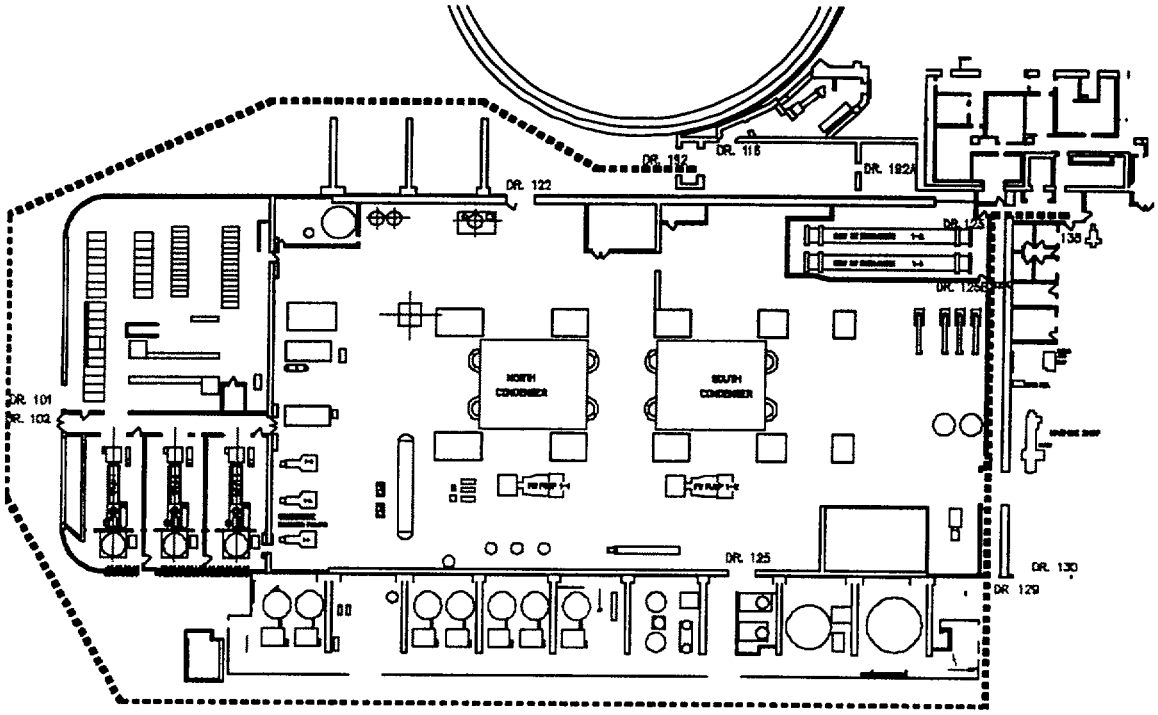


6.1.2 Around Turbine Building at 85' Elevation

a. Unit 1

Starting at the Cold Machine Shop proceed west to the outside via door #129, turn right and continue north around the Unit 1 Turbine Building looping around the transformers at the north end of the plant. Continue south to door #192 between containment and the Turbine Building. Enter the Motor Repair Shop via door #192.

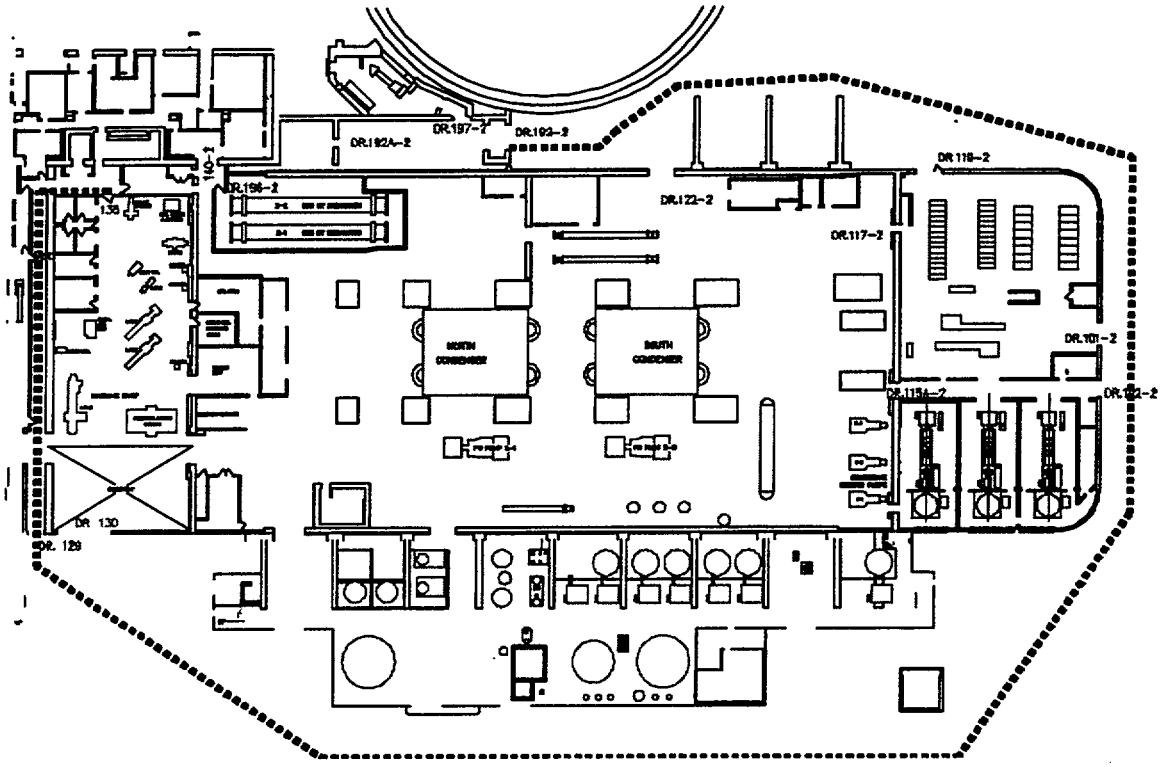
FIGURE 2a



b. Unit 2

Starting at the Cold Machine Shop proceed to the outside via door #129, turn left and continue south around the Unit 2 Turbine Building looping around the transformers at the south end of the plant. Continue north to door #192 between containment and the Turbine Building. Enter the Motor Repair Shop via door #192-2.

FIGURE 2b



6.1.3 Other Access Routes

The Figure 1a or 1b pathway is preferred. However an access route other than those above may be required due to actual post-accident conditions (e.g., fire, high energy line break, etc.). The final route selected should appear on the POST-LOCA BRIEF CHECKLIST.

6.2 Initial Setup of PASS Equipment

6.2.1 Emergency Ventilation System Lineup.

NOTE: The AC-4 key will unlock the cover on the ladder loading from the 85' to the pass ventilation room on the 104' level. The cover should be relocked after use.

a. If the normal vent damper MD-57 needs to be closed proceed with Step 6.2.1.b. If MD-57 is closed proceed to Step 6.2.1.d. [ ]

b. Enter the PASS ventilation room. (AC-4 key required) [ ]

NOTE: Minimize the time that the vent room doors are open.

c. Close the normal vent damper MD-57. [ ]

d. If the emergency ventilation is already lined up proceed to Step 6.2.2, Steel Shield Door Closure. If the emergency ventilation system is not lined up proceed with Step 6.2.1.e. [ ]

e. Proceed to breaker panel PPHRS, 52-(12 or 22) J-35 and check all breakers ON (except spares). [ ]

f. Proceed to the motor controllers for fans and heaters located to the left of the breaker panel and push the STOP and RESET pushbutton on each one. [ ]

g. EMER LEAD (S-150) is the preferred system.

1. Open/check open 1(2) - MD-50 [ ]
2. Open/check open 1(2) - MD-52 [ ]
3. Open/check open 1(2) - MD-53 [ ]
4. Open/check open 1(2) - MD-55 [ ]
5. Close/check close 1(2) - MD-51 [ ]
6. Close/check close 1(2) - MD-54. [ ]

7. Push the START pushbuttons on the motor controllers for the EMER LEAD:
   a) Supply fan, [ ]
   b) Exhaust fan, [ ]
   c) Heater 29A. [ ]
8. Check motor controller indicating lights to confirm proper operation. [ ]
   a) If lights indicate equipment is operating, proceed to Step 6.2.2.
   b) If EMER LEAD (S-150) fails to operate proceed to Step 6.2.1.h.

h. Perform the following steps only if EMER LEAD (S-150) is inoperable. EMER REDUN (S-151) is to be used as a backup if EMER LEAD fails to operate.

1. Push the STOP pushbuttons on the motor controllers for the EMER LEAD (S-150)
   a) Heater 29A, [ ]
   b) Exhaust fan, [ ]
   c) Supply fan. [ ]
2. Open/check open 1(2) - MD-51 [ ]
3. Open/check open 1(2) - MD-52 [ ]
4. Open/check open 1(2) - MD-54 [ ]
5. Open/check open 1(2) - MD-55 [ ]
6. Close/check close 1(2) - MD-50 [ ]
7. Close/check close 1(2) - MD-53. [ ]
8. Push the START pushbutton on the motor controllers for the EMER REDUN:
   a) Supply fan, [ ]
   b) Exhaust fan, [ ]
   c) Heater 29B. [ ]

9. Check motor controller indicating lights to confirm proper operation. If a problem still exists notify Chemistry supervision. Continue if the lights indicate proper operation. [ ]

i. Return to the 85' elevation. [ ]

6.2.2 Steel Shield Door Closure. (See POST-LOCA BRIEF CHECKLIST. If the shield door is closed or is to remain open, proceed to Step 6.2.3, Radiological Assessment.)

a. Proceed through door #192A south of the Unit 1 Motor Repair Shop, or door #192A-2 north of the Unit 2 Motor Repair Shop. [ ]

b. Close the shield door by operating the winch until the mark on the cable is on or close to the take-up spool. [ ]

6.2.3 Radiological Assessment of PASS Room

a. Enter the PASS room via the RCA boundary door #116 Unit #1, or #197-2 Unit #2 and the airtight door. (Use AC-4 key and the key from the RP key box if necessary.) [ ]

b. Close the airtight door. [ ]

c. Perform a general area radiation survey.

1. Note high levels such as might exist at the auxiliary building end of the room due to ECCS piping. [ ]

2. Note low level areas for sample screen surveying later. [ ]

d. Note the reading of RE-48 on the Process Control Panel (PCP). Recheck it when initiating sample purges or when a change in flow rate is observed. [ ]

NOTE: RE-48 is the PASS Room Area Monitor. Contact supervision immediately if radiation levels in the PASS room are such that radiation exposure limits may be exceeded.

e. If the SPING is not alarming, the respirator if worn, may be removed at this time. [ ]

NOTE: The respirator should be donned anytime there is a potential for airborne contamination to be introduced into the room.

6.3 Sampling

6.3.1 Specific Procedures

The detailed instructions for performing the sampling and analysis are covered in the following procedures:

a. CAP P-1 -- Initial Actions

This procedure details necessary steps for initial system lineup.

b. CAP P-2 -- Reactor Coolant Sampling

This procedure describes the steps for sampling diluted liquid for gamma spec, boron, and pH analysis.

c. CAP P-3 -- Containment Air Sampling and Analysis

This procedure describes the steps for sampling containment air for percent hydrogen, radioiodines, particulates and noble gases.

d. CAP P-5 -- Sample Handling and Boron Analysis

This procedure describes the steps for PASS sample handling and boron analysis by carminic acid.

e. CAP P-6 -- Data Analysis

This procedure provides a standard format to record data and calculate dilution factors.

f. CAP P-9 -- Sample Storage and Disposal

This procedure provides instructions for disposal of stripped gas samples and storage of liquid samples.

g. CAP P-10 -- Undiluted Liquid Sampling

This procedure details the steps required to obtain an undiluted liquid sample.

7. ACCEPTANCE CRITERIA

None

8. REFERENCES

8.1 "High Radiation Sampling System Operations and Maintenance Manual", SENTRY EQUIPMENT CORP., Prepared by NUS Corp., PG&E Record No. 696213-84-3.

8.2 NUREG 0737, 10/80.

8.3 Regulatory Guide 1.97, Rev. 3, 5/83.

8.4 License Amendment 149 (Unit 1) and 149 (Unit 2) dated July 13, 2001.

8.5 WOG Core Damage Assessment Guidance, Nov. 1999 (WCAP-14696-A, Rev. 1)

8.6 WOG Post Accident Sampling System Requirements: A Technical Basis, July 2000 (WCAP-14986-A, Rev. 2)

8.7 CAP P-1, "Initial Actions."

8.8 CAP P-2, "Reactor Coolant Sampling."

8.9 CAP P-3, "Containment Air Sampling and Analysis."

8.10 CAP P-5, "Sample Handling and Boron Analysis."

8.11 CAP P-6, "Data Analysis."

8.12 CAP P-9, "Sample Storage and Disposal."

8.13 CAP P-10, "Undiluted Liquid Sampling."

9. RECORDS

Data Sheets and records will be maintained in the Record Management System (RMS) in accordance with CY1.DC1.

10. APPENDICES

None

11. ATTACHMENTS

11.1 "Post-Loca Brief Checklist," 10/09/01

12. SPONSOR

Patrick Baxter

DIABLO CANYON POWER PLANT
EP RB-15
ATTACHMENT 11.1

1 AND 2

TITLE: Post-Loca Brief Checklist

The following instructions will be given at the briefing:

1. Access Route: _____
(EP RB-15)
2. Hazards along route: _____
_____
3. Communication Status: _____
_____

		YES	NO
4.	85' Penetration Area Shield Door Needs to be Closed	[ ]	[ ]
5.	PASS Room Sample Panel Shield Door Needs to be Closed	[ ]	[ ]
6.	RE-48 and SPINGS indicate lab has a safe, habitable environment.	[ ]	[ ]
7.	Analyze CA for Hydrogen using the Remote Containment Hydrogen Analyzers (CAP P-3)	[ ]	[ ]
8.	EMERGENCY VENTILATION LINED-UP	[ ]	[ ]
	VENTILATION LINEUP: EMER. LEAD / REDUNDANT		
	8.1 Normal vent damper HVAC-MD-57 closed.	[ ]	[ ]

9. Letdown Status:

NOTE: Check off analysis requested by the TSC or Site Chemistry Coordinator.

10. Reactor Coolant Samples

Hot Leg #1 [ ] RHR Pump 1-1 [ ]
Hot Leg #4 [ ] RHR Pump 1-2 [ ]

11. RCS & RHR (Containment Sump) Analyses:

	PROCEDURE	YES	NO	COMMENTS
RCS, RHR Boron (Diluted)	EP RB-15 & CAP P-1, 2, 5, 6			
RCS, RHR Boron (Undil)	EP RB-15 & CAP P-1, 5, 6 CAP C-19 & CAP E-1			
RHR pH	EP RB-15 & CAP P-1, 2, 6 CAP C-90			
RCS, RHR Activity (Undil)	EP RB-15, CAP P-1, 2, 6 CAP E-1			
RCS, RHR Activity (Diluted)	EP RB-15 & CAP P-1, 2, 5, 6			

12. Containment Atmosphere Sample [ ]

Containment Atmosphere Analyses:	PROCEDURE	YES	NO	COMMENTS
Particulate/Iodine	EP RB-15 & CAP P-1, 3, 6			
Noble Gas	EP RB-15 & CAP P-1, 3, 6			

13. OTHER _____

FORM COMPLETED BY: _____ DATE/TIME: _____
Site Chemistry Coordinator

REVIEWED BY: _____ DATE/TIME: _____

REVIEWED BY: _____ DATE/TIME: _____

REVIEWED BY: _____ DATE/TIME: _____
PASS Team Members

NOTE: Refer to STP G-14 for optional methods of sampling.