



**Pacific Gas and
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March 29, 2004

PG&E Letter DCL-04-032

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 (E-Plan) implementing procedures (EPIPs) for Diablo Canyon Power Plant, Units 1 and 2, as indicated in Enclosure 1.

As provided under 10 CFR 50.54(q), the EPIP changes have been made without prior NRC approval since they do not decrease the effectiveness of the E-Plan. The E-Plan continues to meet the requirements of 10 CFR 50.47(b) and 10 CFR 50, Appendix E.

This update does not contain privacy and/or proprietary information as defined in accordance with NRC Generic Letter 81-27.

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

Sincerely,

James E. Tomkins
Director - Site Services

ddm/1345/A0574880

Enclosure

cc: David L. Proulx, NRC Senior Resident Inspector
Girija S. Shukla, NRC Project Manager
cc/enc: Bruce S. Mallett, NRC Region IV (2)

A045

DIABLO CANYON POWER PLANT EMERGENCY PLAN IMPLEMENTING PROCEDURES

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NUCLEAR POWER GENERATION
DIABLO CANYON POWER PLANT
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NUMBER EP G-2
REVISION 28
PAGE 1 OF 3
UNITS

TITLE: Interim Emergency Response Organization

1 AND **2**

03/12/04

EFFECTIVE DATE

PROCEDURE CLASSIFICATION: QUALITY RELATED

1. SCOPE

This procedure provides emergency response actions to be taken by the interim emergency response organization in the control room during a declared emergency.

2. DISCUSSION

The checklists are intended to provide quick reference to all possible emergency response actions and require judgment in prioritizing activities based upon available resources and unforeseen circumstances.

3. RESPONSIBILITIES

Interim Site Emergency Coordinator (ISEC)

Shift manager assumes the duties of the ISEC and takes command and control of the emergency response effort until relieved. The ISEC has the responsibility and authority to:

- Declare emergency classifications. per EP G-1.
- Ensure completion of the Emergency Notification Form 69-20596.
- Notify off-site authorities of the event and make protective action recommendations per EP G-3.
- Conduct assembly and accountability on-site, at the Site Area Emergency Level, per EP G-4.
- Authorize extraordinary emergency measures such as authorizing emergency response personnel to exceed normal established dose limits.
- Provide direction for all emergency response operations.
- Maintain liaison with off-site authorities.
- Authorize the evacuation of the plant site per EP G-5.
- Approve press releases.
- Initiate on-site and off-site radiological monitoring.

Emergency Operations Coordinator

The shift foreman of the affected unit assumes this position to manage control room operational activities and advise the ISEC of needed event reclassifications.

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TITLE: Interim Emergency Response Organization

Control Room Communicator #1

This position is assumed by the shift foreman of the unaffected unit.

- Ensures completion of offsite emergency notifications to: San Luis Obispo County, California State Office of Emergency Services (OES), and the Nuclear Regulatory Commission (NRC) until relieved.

Control Room Communicator #2

- The control room Communicator #2 is responsible for VANS activation to notify the emergency response organization and management personnel.
- The Communicator #2 is also responsible for control room accountability, if required.

Emergency Evaluation Coordinator (EEC)

The EEC performs technical evaluations of plant response, dose assessments, and protective action recommendations (PARs) for approval by the ISEC.

4. INSTRUCTIONS

4.1 Interim Site Emergency Coordinator (ISEC)

- 4.1.1 Upon declaration of an emergency, use the ISEC Emergency Checklist, form 69-20644.

4.2 Emergency Evaluation Coordinator (EEC)

- 4.2.1 Perform EP R-2 calculations and dose assessments.
- 4.2.2 Provide technical evaluations of plant response, dose assessments, and protective action recommendations (PARs).
- 4.2.3 Use Emergency Evaluation Coordinator Checklist, form 69-20645.

4.3 Emergency Operations Coordinator

- 4.3.1 Manage the control room operational activities.

4.4 Communicator #1

- 4.4.1 Communicator #1 shall ensure offsite emergency telephone notifications to San Luis Obispo County and the California State Office of Emergency Services (OES) are completed within 15 minutes of a declared emergency.
- 4.4.2 Communicator #1 shall ensure the NRC is notified within 60 minutes of a declared emergency.
- 4.4.3 Follow up notifications should be completed approximately every 45 minutes.
- 4.4.4 Use Communicator #1 Checklist, Form 69-20646.

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TITLE: Interim Emergency Response Organization

4.5 Communicator #2

4.5.1 Communicator #2 shall ensure VANS is activated within 10 minutes of a declared emergency to notify appropriate emergency response organization and management personnel.

4.5.2 If VANS is unavailable, the paging phone shall be used in conjunction with the manual call out of personnel using the recall roster.

4.5.3 Communicator #2 shall ensure the assembly and accountability process is initiated, if appropriate, in accordance with EP G-4.

4.5.4 Use Communicator #2 Checklist, Form 69-20647.

5. RECORDS

Documents generated by this procedure are non-quality good business records and are maintained for a period of three years, in accordance with AD10.ID2.

6. ATTACHMENTS

- 6.1 Form 69-20644, "ISEC Checklist," 03/10/04
- 6.2 Form 69-20645, "Emergency Evaluation Coordinator," 10/20/03
- 6.3 Form 69-20646, "Communicator #1 Checklist," 03/10/04
- 6.4 Form 69-20647, "Communicator #2 Checklist," 10/20/03
- 6.5 Form 69-20649, "VANS Manual Operation," 10/20/03
- 6.6 Form 69-20648, "Paging Phone Activation," 10/20/03

7. REFERENCES

None

DIABLO CANYON POWER PLANT

EP G-2

ATTACHMENT 6.1

1 AND 2

TITLE: ISEC Checklist

Print Name _____ Date _____

- 1. Declare the appropriate emergency classification within 15 minutes of meeting EP G-1 EAL criteria.
- 2. Direct the control room staff to assume emergency response roles and obtain their position binders.
- 3. For an **Unusual Event**:
 - Direct Communicator #2 to activate VANS as soon as possible. This notifies senior management only.
 - Complete the notification form and direct Communicator #1 to complete off-site agency notifications within 15 minutes of classification. Refer to EP G-3. (For closeout of an Unusual Event, go to Step 10)
- 4. For an **ALERT or higher**:
 - Direct Communicator #2 to activate VANS within 10 minutes of the ALERT (even if already activated at the UE level). This will activate the ERO.
 - Complete the notification form and direct Communicator #1 to complete off-site agency notifications within 15 minutes of classification. Refer to EP G-3.
- 5. If an ALERT has been declared, make the following PA announcement.

*Attention, all plant personnel, _____ has been declared for Unit _____,
(Emergency Classification)*

All emergency response personnel report to your assigned emergency response facilities.

- 6. For a **Site Area Emergency or higher**, or if assembly and accountability is required, Sound the Site Emergency Signal for 60 seconds, and make the following PA Announcement.

*Attention, all plant personnel, _____ has been declared for Unit _____,
(Emergency Classification)*

All emergency response personnel report to your assigned emergency response facilities. The Assembly and Accountability process has been activated. All non-essential personnel, place your work in a safe condition, leave the power block, and return to your normal desks.

- Refer to G-4 and direct Communicator #2 to complete On-shift accountability and fax the form to the Security Watch Commander.
- 7. Evaluate initiation of early work release or site evacuation. Refer to EP G-5.
- 8. Authorize KI administration if required. Refer to EP RB-3.
- 9. When ready to turn over to the SEC or the RM, activate the Video Conference Unit, and use form 69-20437, ISEC/SEC/RM Turnover Checklist to turnover ISEC responsibilities.

Unusual Event Termination - When plant conditions no longer meet any Unusual Event criteria:

- 10. Ensure offsite notifications are made in accordance with EP G-3.
- 11. Ensure an AT REPT action request is initiated with 24 hours of termination.

DIABLO CANYON POWER PLANT

EP G-2

ATTACHMENT 6.2

1 AND **2**

TITLE: Emergency Evaluation Coordinator

Print Name _____ Date _____

- 1. If a radiological release is indicated, perform an assessment of site boundary dose rate in accordance with EP R-2 and notify the ISEC.
- 2. Compare the EP R-2 calculation results with EP G-1 EALs and assist the ISEC with emergency classifications.
- 3. Activate ERDS on SPDS within 30 minutes of emergency classification.
- 4. If the EOF is activated, contact the UDAC radiological manager to provide a briefing of plant status, radiological conditions, status of field monitoring teams, and the status of KI administration.

DIABLO CANYON POWER PLANT

EP G-2

ATTACHMENT 6.3

1 AND 2

TITLE: Communicator #1 Checklist

Communicator #1

Print Name _____

Date _____

NOTE: Communicator #2 may assist with notifications.

- [] 1. Complete notifications to the County and State within 15 minutes of the emergency classification. (Classification Time is in Block 8 of the DCPD Emergency Notification Form 69-20596.)
- [] 2. Ensure the NRC is notified as soon as possible, but within 60 minutes of the classification time written on the DCPD Emergency Notification Form.
- [] 3. Follow up notifications should be performed *approximately* every 45 minutes.
- [] 4. Ensure copies of the computer version of the DCPD Emergency Notification Form 69-20596 are faxed to:
 - DCPD Emergency Public Information Manager at 549-9187
 - San Luis Obispo County 805-781-1234
 - CA State OES 916-845-8910
 - NRC 301-816-5151
 - EOF 805-545-6265
 - TSC 805-545-3853

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DIABLO CANYON POWER PLANT

EP G-2

ATTACHMENT 6.4

1 AND 2

TITLE: Communicator #2 Checklist

Communicator #2

Print Name _____ Date _____

- Obtain enough information from the ISEC or Communicator #1 to fill out the template below for the On The Fly Message.
- 2. Ensure VANS is activated **within 10 minutes** of the initial event classification of ALERT or higher. Time of classification: _____ If the event classification is Unusual Event, simply activate VANS as soon as possible.

An emergency at Diablo Canyon Unit _____ has been declared at the Unusual Event Alert
 Site Area Emergency General Emergency level, due to a
 _____.

There is / is no radioactive release to the environment above normal operating limits.
 (circle one)

Radiation levels are/are not above background at the site boundary.
 (circle one)

- 3. Press the **Call VANS** button. Wait for prompt.
- 4. Press the **Company ID** button.
 - a. Verify 3277 is displayed, then press the # sign.
- 5. Press the **Scenario Activation Password** button.
 - b. Verify 4225 is displayed, then press the # sign.
- 6. Press the appropriate **Scenario ID** button.
 - c. Verify correct 4-digit scenario ID number is displayed, then press the # sign.
- 7. Listen to the prompts. Press 2, to record an on-the-fly message. Wait for prompt.
- 8. Use the on-the-fly message template from Step 2 to record the message, THEN press #.
- 9. Listen to the prompts. You may Press 3 to activate, then hang up immediately. Or you can listen to all the prompts until it tells you to "press # to end this call".
 - Note time of VANS Activation: _____
- 10. Verify shift manager pager and phone activates within approximately **2 minutes** of VANS activation. If his pager has not gone off, go to Attachment 6.5 for manual activation.
- 11. If the assembly and accountability process has been activated, fax the on-shift accountability roster to the DCPD watch commander at 3115 **within 15 minutes**, in accordance with EP G-4.

EP G-2 (UNITS 1 AND 2)
ATTACHMENT 6.4

TITLE: Communicator #2 Checklist

Verification of VANS Activation (IF REQUESTED)	
<input type="checkbox"/>	1. Press the Call VANS button. Wait for prompt.
<input type="checkbox"/>	2. Press the Company ID button. Verify 3277, then press the # sign. Wait for prompt.
<input type="checkbox"/>	3. Press the Activation Password button. Verify 4225, then press the # sign. Wait for prompt.
<input type="checkbox"/>	4. Press # for more options.
<input type="checkbox"/>	5. Press 3 to hear the status of the scenario.
<input type="checkbox"/>	6. Press the scenario ID number followed by the # sign.
<input type="checkbox"/>	7. After listening to status, hang up.

Stopping VANS Activation (IF REQUESTED)	
<input type="checkbox"/>	1. Press the Call VANS button. Wait for prompt.
<input type="checkbox"/>	2. Press the Company ID button. Verify 3277, then press the # sign. Wait for prompt.
<input type="checkbox"/>	3. Press the Activation Password button. Verify 4225, then press the # sign. Wait for prompt.
<input type="checkbox"/>	4. Press # for more options.
<input type="checkbox"/>	5. Press 2 to end a scenario.
<input type="checkbox"/>	6. Press the scenario ID number followed by the # sign.
<input type="checkbox"/>	7. After listening to status, hang up.

DIABLO CANYON POWER PLANT

EP G-2

ATTACHMENT 6.5

1 AND 2

TITLE: VANS Manual Operation

IF VANS primary phone is unavailable or failed, or if the ISEC's pager has not been activated after approximately 2 minutes, use these instructions to activate VANS manually using any phone with an outside line.

VANS Manual Operation

1. Dial 9-1-866-727-0976 from any plant telephone with offsite access.
2. When prompted for the company ID, enter 3277 followed by the "#" sign.
3. When prompted for the scenario activation password, enter 4225 followed by the "#" sign.
4. When prompted for the scenario ID, enter the appropriate number from the listing below followed by the "#" sign.
5. Follow the prompts to complete the call-out.

SCENARIOS	
Id Numbers	Title
111	1 Hr/4 Hr/8 Hr Notification
112	Unusual Event
113	Alert, Site Area Emergency, or General Emergency
1010	Security Threat - Unusual Event
1012	Orange Level Security Threat – ERO Notification

DIABLO CANYON POWER PLANT

EP G-2

ATTACHMENT 6.6

1 AND 2

TITLE: Paging Phone Activation

Paging Phone Activation

If VANS primary and manual activation have failed or the system is inoperable, use the Paging Phone to page personnel. This is the brown phone next to the VANS phone in the control room. It uses the plant pager system and sends a code to preprogrammed pager groups.

The procedure is posted as a sign next to the paging phone in the control room.

1. 1 hr/4 hr/8 hr notifications / UE

- a. Pick up the receiver and listen.
 - b. At the beep, enter 0400 for Management Pager Group.
 - c. After 3 tones, enter the password, 5639.
 - d. After 3 tones, enter 111 for NUE (also for 1 hr/4 hr/8 hr notification).
 - e. Press the pound sign (#) and hang up.
-

2. Alert / Site Area Emergency / General Emergency

- a. Pick up the receiver and listen.
- b. At the beep, enter 0411 for ALL Pager Groups
- c. After 3 tones, enter the password, 5639.
- d. After 3 tones, enter 666 for ALERT, SITE AREA EMERGENCY, or GENERAL EMERGENCY.
- e. Press the pound sign (#) and hang up.
- f. Verify the shift manager pager activates

NOTE: Repeat every 2 to 3 minutes, 3 times if the shift manager pager does not activate

3. Off-Normal Communications

If Pacific Bell service has been lost or interrupted, VANS primary will still function, however, alternate means of off-site communications include:

- OPS radio to the Sheriff's Dispatch
- OPS radio to San Luis Obispo Distribution Operations (SLODO)

San Francisco (public dial tone): Dial 51-9 from the control room, and company phones will connect you with San Francisco Pacific Bell lines. You will receive a dial tone and continue to dial as from a normal outside Pacific Bell line.

REMEMBER: You are connected through San Francisco and therefore their telephone area code. All phone calls to SLO will need to be preceded by one and then our area code: 1-805-number.

Phones from which you can dial 51-9 to access San Francisco telephone lines include those located on Units 1 and 2 on the senior control operator consoles, shift foreman phones and the shift manager phones. TSC and EOF some company phones (standard ROLM phones) also have this capability.

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NUCLEAR POWER GENERATION
DIABLO CANYON POWER PLANT
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NUMBER EP R-2
REVISION 22
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UNITS

TITLE: Release of Airborne Radioactive Materials Initial Assessment

1 AND 2

03/18/04

EFFECTIVE DATE

PROCEDURE CLASSIFICATION: QUALITY RELATED

1. SCOPE

- 1.1 This procedure describes the steps to be taken by on-shift personnel to initially evaluate the off-site consequences of an accidental airborne release that may result in Emergency Plan Activation.
- 1.2 It does not describe the operation of the plant equipment necessary to terminate or minimize the release. This latter subject is covered in the appropriate E, ECA, and FR series Emergency Procedures for the particular release mechanism.

CAUTION: Revisions to this procedure require the PPC display be updated (Reference A0595224).

2. DISCUSSION

- 2.1 An accidental airborne release of radioactive materials that may result in site boundary dose rates in excess of the limits specified in the EP G-1 shall require a prompt initial assessment by the operating staff. This initial release rate and dose assessment is performed using either the Plant Process Computer (PPC) program "EPR2," or manually using Section 7 of this procedure.
- 2.2 This procedure shall only be used by Control Room personnel to perform initial accident dose assessments. This procedure shall not be used to evaluate compliance with Technical Specification limits during planned effluent releases conducted as part of normal plant operations. The methodology contained in this procedure is intended to provide a rapid and conservative calculation of the projected off-site doses due to an accidental release of airborne radioactive materials. More advanced methodologies are contained in procedures EP RB-9 and EP RB-11 or the appropriate chemistry procedures.

3. DEFINITIONS

- 3.1 Accidental Release - A release of radioactive material unrelated to any planned effluent release evolutions.
- 3.2 Committed Dose Equivalent (CDE) - The dose to the organs or tissues that would be received from an intake of radioactive material by an individual during the 50 years following the intake.
- 3.3 Committed Effective Dose Equivalent (CEDE) - The sum of the products of the weighting factors applicable to each of the body organs or tissues that are irradiated and the CDE to these organs or tissues.

TITLE: Release of Airborne Radioactive Materials Initial
Assessment

- 3.4 Deep Dose Equivalent (DDE) - Dose associated with exposure of the whole body (depth of 1 cm).
- 3.5 Total Effective Dose Equivalent (TEDE) - The sum of the DDE (for external exposure) and CEDE (for internal exposure).
- 3.6 TEDE Rate - The time rate of change of Total Effective Dose Equivalent as a function of immersion and inhalation exposure time.
- 3.7 Thyroid CDE Rate - The time rate of change of Thyroid Committed Dose Equivalent as a function of immersion and inhalation exposure time.

4. RESPONSIBILITIES

- 4.1 Emergency Evaluation Coordinator (EEC) is responsible for performing an initial assessment of an airborne radiological release when directed by the ISEC.
- 4.2 Interim Site Emergency Coordinator (ISEC) is responsible for determining when an assessment is needed and directing the EEC to implement this procedure based on emergency evaluation priorities.

5. PREREQUISITES

- 5.1 Unified Dose Assessment Center (UDAC) is not activated and performing the function of radiological assessment.
- 5.2 Interim Site Emergency Coordinator (ISEC) has determined, based on plant accident conditions or symptoms of an accidental radiological release, that an initial assessment of projected off-site doses has priority over other actions being performed by the EEC.

The following listed symptoms indicate that an airborne release may be occurring from within the RCA as guidance to the ISEC:

- There is actual or suspected leakage of water, steam, or noncondensable gases from any vessel or piping system containing primary coolant, liquid radwaste, or gaseous radwaste.
- Damage occurs to a submerged, irradiated fuel assembly with the resultant release of significant quantities of noncondensable gases.
- Alarms occur on CAMs.
- A fire occurs involving radioactive materials.
(Refer to EP M-6)
- Verified alarm on radiation monitors RE-14/14R, RE-28/28R, RE-29, RE-15/15R, or RE-24/24R.
- A major radioactive material spill occurs.

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TITLE: Release of Airborne Radioactive Materials Initial
Assessment

6. PRECAUTIONS

- 6.1 Do not use SPDS to obtain RMS readings. Radiological Monitor readings off SPDS may be based on different units of measurement than required as input to the calculations.
- 6.2 If the Main Condenser is available during a SGTR event with a stuck open Safety Relief or 10% Steam Dump to atmosphere, there are two release pathways.
- 6.3 Obtain an independent verification of your calculation whenever time permits to confirm no errors or incorrect assumptions about plant conditions.
- 6.4 Default release rates are extremely conservative and may result in higher classifications or PARs than would be warranted if actual release indications were available.
- 6.5 N-16 will be detected on the MSL Radiation Monitors while at power and may cause a false high off-site dose calculation.
- 6.6 This procedure shall not be used to evaluate compliance to Technical Specifications during planned effluent releases. Such evaluations shall be performed by the Chemistry Department.
- 6.7 Fuel Handling Accident (FHA) in Containment with Equipment Hatch open is a special case. Use the analyzed default dose rates and doses listed in Attachment 10.1 and go directly to EP G-1 for comparison to the Emergency Action Levels (EALs).

7. INSTRUCTIONS

NOTE: This calculation can be performed on the PPC using the turn-on code "EPR2."

7.1 RELEASE RATE CALCULATIONS

- 7.1.1 Obtain a working copy of Attachment 10.1.
- 7.1.2 Determine release source location as Plant Vent, Atmospheric Steam Release, or Unmonitored.

CAUTION: Do NOT use SPDS to obtain radiation monitor readings.

- 7.1.3 Gather and record the required information in accordance with the appropriate section of the form.

NOTE: Plant Vent Extended Range Rad Monitor RE-87 will automatically activate if the Normal Range Gas Monitors RE-14/14R approach their maximum reading.
- 7.1.4 Perform the required calculation to determine the release rate of Total Effluent and record the results in both this Attachment and Attachment 10.2.
- 7.1.5 If it is not possible to calculate a release rate, refer to the DEFAULT RELEASE RATES on Page 3 of Attachment 10.1 and choose the most appropriate value for input to Attachment 10.2. For an FHA in containment with equipment hatch open, use default dose rates and doses from Attachment 10.1 and go directly to EP G-1 for comparison to the EALs.

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TITLE: Release of Airborne Radioactive Materials Initial
Assessment

7.2 OFF-SITE DOSE CALCULATIONS

NOTE: Calculations may be performed using the PPC routine "EPR2," or by hand, as follows:

- 7.2.1 Obtain a working copy of Attachment 10.2.
- 7.2.2 Gather and record the required information in accordance with the appropriate section of the form.
NOTE: Plant Process Computer (PPC) Meteorological Data turn on codes are "METP" (Primary Data) and "METB" (Back-up Data).
- 7.2.3 Determine the appropriate activity source term and circle the associated DCFs to be used in Section 4A and 4B.
- 7.2.4 Perform the required calculations to determine the TEDE and THYROID CDE RATES.
- 7.2.5 Project the RELEASE DURATION in hours as input to determining projected doses.
- 7.2.6 If a duration cannot be projected, use the DEFAULT DURATION of 3 hours.
- 7.2.7 Perform the required calculations to determine the TEDE and THYROID CDE at the Site Boundary (800 meters).

7.3 REPORTING THE RESULTS

- 7.3.1 Refer to EP G-1 and compare the results of the above calculations with the Emergency Action Levels.
- 7.3.2 Refer to EP RB-10 and compare the results of the dose calculations with the PAR determination criteria.

7.4 Advise the ISEC of any EAL thresholds that are exceeded based on site boundary dose rates and doses, or the need to revise PARs due to changing conditions.

7.5 CONTINUOUS ACTIONS

- 7.5.1 As directed by the ISEC, continue to perform assessment of airborne releases to support evaluation of EAL status and PARs by repeating the above instructions.
- 7.5.2 Contact Chemistry to request:
 - a. A sample of the radioactive effluent (if possible) and in-plant airborne activity.
 - b. A confirmatory assessment of the site boundary dose rate from the release.

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TITLE: Release of Airborne Radioactive Materials Initial
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8. RECORDS

- 8.1 All checklists generated during activation of the EOF for drills and exercises are non-quality Good Business Records and shall be retained by Emergency Planning Group for three years.
- 8.2 All checklists generated during activation of the EOF for a real event are non-quality records and shall be retained in RMS in accordance with AD10.ID2.

9. APPENDICES

None

10. ATTACHMENTS

- 10.1 ""Release Rate Calculations," 10/31/02
- 10.2 ""Off-Site Dose Calculations," 08/05/94

11. REFERENCES

- 11.1 EP G-1, "Accident Classification and Emergency Plan Activation."
- 11.2 EP G-2, "Activation and Operation of the Interim Site Emergency Organization (Control Room)."
- 11.3 EP RB-9, "Calculation of Release Rate."
- 11.4 EP RB-10, "Protective Action Recommendations."
- 11.5 EP RB-11, "Emergency Off-site Dose Calculations."
- 11.6 EP RB-12, "Mid and High Range Plant Vent Radiation Monitors."
- 11.7 EP M-6, "Fire."
- 11.8 NRS-RES Calculation No. RA 93-12, New Dose Conversion Factors for EP R-2 and RB-11, Validation and Verification, Rev. 1, 12/15/93.
- 11.9 NOS-RECE Calculation No. RA 93-04, EP RB-9, Calculation of Release Rate, Rev. 7 and R-2, Release of Airborne Radioactive Materials, Rev. 12, Validation and Verification, Rev. 0, 4/12/93.
- 11.10 SH&ES Calculation No. EP-94-01, Rev 0, EP R-2, Release of Airborne Radioactive Materials, Rev 17, Validation and Verification.
- 11.11 PG&E Calculation PAM-0-04-517, Rev. 4, 4/6/97 "Steam Generator Narrow Range Level Uncertainty."
- 11.12 PG&E Calculation STA-160, Freq., "Estimate of Expected Exposures Associated with a Fuel Handling Accident with Containment Open."

10/31/02

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DIABLO CANYON POWER PLANT
EP R-2
ATTACHMENT 10.1

1 AND 2

TITLE: Release Rate Calculations

PLANT VENT RELEASE

1. GENERAL INFORMATION

Date: _____ Time: _____ Assessment No. _____
Assessment By: _____ Unit Releasing _____

2. PLANT VENT FLOW RATE DETERMINATION

A. DIRECT - Plant Vent Flow Rate FR-12 (0.30x10⁴ CFM (CFM)) = _____ (CFM)

OR

B. ALTERNATE - Operating Ventilation Equipment

	(Max No. possible)	#Fans	(CFM/Fan)		
FHB Exhaust	(1)	_____ x	35,750	=	_____ (CFM)
Aux Bldg Exhaust	(2)	_____ x	73,500	=	_____ (CFM)
GE/GW Area	(1)	_____ x	25,000	=	_____ (CFM)
Cont. Purge	(1)	_____ x	55,000	=	_____ (CFM)
Cont. Hydrogen	(1)	_____ x	300	=	_____ (CFM)

Plant Vent Flow Rate = _____ (CFM)

3. RELEASE RATE CALCULATION

CAUTION: Do NOT use SPDS to obtain monitor readings.

A. NOBLE GAS RELEASE RATE

	Circle Monitor Used	Reading (Units)	Conversion Factor	Plant Vent Flow Rate (CFM)	Noble Gas Release Rate (Ci/sec)
Primary	RE-14/14R/87	_____ μ Ci/cc	x 4.72E-04	x _____	= _____
Backup	RE-29	_____ mR/hr	x 4.72E-06	x _____	

B. TOTAL EFFLUENT RELEASE RATE

NOTE: Refer to Page 3 for criteria in choosing RCS, GAP, or CORE below.

Noble Gas Release Rate (Ci/sec)	Total Effluent Conversion Factor	Total Effluent Release Rate (Ci/sec)
_____ x	1.00 (RCS)	= _____
	1.11 (GAP)	
	1.50 (CORE)	

NOTE: If it is not possible to calculate a release rate, refer to the DEFAULT RELEASE RATES on Page 3 of this attachment.

GO TO ATTACHMENT 10.2

EP R-2 (UNITS 1 AND 2) ATTACHMENT 10.1

TITLE: Release Rate Calculations

1. GENERAL INFORMATION

ATMOSPHERIC STEAM RELEASE

Date: _____ Time: _____ Assessment No. _____
Assessment By: _____ Unit Releasing _____

CAUTION: WHEN CRITICAL, N-16 ACTIVITY SEEN BY MSL RAD MONITORS CAUSES INVALID READINGS FOR OFFSITE DOSE. POST-TRIP, RE-7X READING IS VALID IF THE RE-7X MONITOR SHOWED AN INITIAL N-16 RESPONSE, OR RESPONDS TO CHECKSOURCE.

NOTE: If it is not possible to calculate a release rate, refer to the DEFAULT RELEASE RATES on Page 3.

2. STEAM RELEASES - Use this form to calculate steam releases to the atmosphere WHEN NOT critical.

A. Required Information (RUPTURED GENERATOR ONLY)

Table with 8 columns: Check Ruptured S/G, MSL Rad Monitor, Reading (cpm), S/G Lvl Narrow Range, Level (%), S/G Flow Rate, Flow Rate (lbs/hr). Rows for SG 1-4 with corresponding RE and LI identifiers.

B. Alternate Steam Flow Rate (Only if the RUPTURED S/G Flow Rate is otherwise not available)

Table with 4 columns: Valve Type, # Valves Lifted, Capacity (lbs/hr), Flow Rate (lbs/hr). Rows for 10% Steam Dump and Safety Reliefs.

Total Steam Flow Rate (lbs/hr) = [] (lbs/hr)

3. RADIATION MONITOR FACTORS (Determined based on S/G NR Level indication) (Enter in Section 4 below.)

Table with 4 columns: S/G Level Narrow Range, EMPTY, NORMAL, FLOODED. Row for Monitor Factor with values 6.08E-10, 6.75E-10 (DEFAULT), and 3.07E-10.

4. RELEASE RATE CALCULATIONS

A. TOTAL EFFLUENT RELEASE RATE (RE-7x)

Table with 4 columns: MSL Monitor Reading (cpm), Flow Rate (lbs/hr), Monitor Factor, Total Effluent Release Rate (Ci/sec). Includes a calculation row with 'x' and '=' signs.

GO TO ATTACHMENT 10.2

EP R-2 (UNITS 1 AND 2)
ATTACHMENT 10.1

TITLE: Release Rate Calculations

1. SOURCE TERM SELECTION AND DEFAULT RELEASE RATES

NOTE: Use default release rate only if actual data is not available or if the release is not being monitored.

A. Check the accident type which most closely resembles the current event.

Accident Source	Default Release Rate (Ci/sec)	Condition	Source Term
<input type="checkbox"/> LOCA (w/ core melt)	1.74 E+1	RE-30 or 31 > 300R/hr	CORE
<input type="checkbox"/> LOCA (w/o core melt)	5.74 E+0	RE-30 or RE-31 < 300R/hr RE-30 or RE-31 not on scale	GAP RCS
<input type="checkbox"/> Main Steam Line Break	8.61 E-3		RCS
<input type="checkbox"/> Feedwater Line Break	8.61 E-3		RCS
<input type="checkbox"/> Blackout	8.62 E-1		RCS
<input type="checkbox"/> Locked Rotor	1.57 E-2		GAP
<input type="checkbox"/> FHB Accident	1.45 E+1		GAP
<input type="checkbox"/> Rod Ejection	1.08 E-2		GAP
<input type="checkbox"/> GDT Rupture	4.14 E+1		RCS
<input type="checkbox"/> LHUT Rupture	3.10 E+1		RCS
<input type="checkbox"/> VCT Rupture	8.29 E-2		RCS
<input type="checkbox"/> S/G Tube Rupture	1.65 E+0	NR S/G Level < 4% NR S/G Level 4-96% NR S/G Level > 96%	SG - Empty SG - Normal SG - Flooded
<input type="checkbox"/> Containment FHA Accident with Equip. Hatch Open	S.B. Dose Rates S.B. Doses	TEDE - 13.4 mrem/hr Thy.CDE - 51.4 mrem/hr TEDE - 6.7 mrem Thy. CDE - 25.7 mrem	Go Directly to EP G-1

B. Record the Default Release Rate in Attachment 10.2, Section 4 and use the DCF choice that is listed for the specific accident source above.

GO TO ATTACHMENT 10.2

DIABLO CANYON POWER PLANT
EP R-2
ATTACHMENT 10.2

1 AND 2

TITLE: Off-Site Dose Calculations

1. GENERAL INFORMATION

Date: _____ Time: _____ Assessment No. _____
 Assessment By: _____ Unit Releasing _____

2. METEOROLOGICAL DATA - PPC (Plant Process Computer)

Turn On Codes for Met Data are "METP" (Primary Data) or "METB" (Back-up Data)

Parameter	Reading	Units	DEFAULT
Wind Speed (10 Meter Level)	_____	meters/sec	
Wind Direction (10 Meter Level)	_____	Degrees	
Site Boundary X/Q (0.8 km)	_____	Sec/m ³	5.29E-04

3. DCF Determination - Select the most appropriate source term for the DCF using the criteria in Attachment 10.1. Circle the corresponding DCF in Section 4 below.

4. DOSE CALCULATIONS - (From data calculated using Attachment 10.1)

A. TOTAL EFFECTIVE DOSE EQUIVALENT (TEDE)

Total Effluent or Default Release Rate (Ci/sec)	Site Boundary X/Q (0.8 km) (Sec/m ³)	DCF (circle one)	TEDE Rate (mrem/hr)	Projected Release Duration (hr) (DEFAULT 3 hrs)	TEDE (mrem)
_____	_____	1.1E + 05 (RCS) 3.0E + 06 (Gap) 1.1E + 07 (Core)	<input type="text" value="-"/>	_____	<input type="text" value="-"/>
Attachment 10.1		1.1E + 05 (SG-Empty) 4.3E + 04 (SG-Normal) 9.3E + 05 (SG-Flooded)			

B. THYROID COMMITTED DOSE EQUIVALENT (CDE) (DO NOT COMPLETE FOR GDT, LHUT, OR VCT RUPTURE)

Total Effluent or Default Release Rate (Ci/sec)	Site Boundary X/Q (0.8 km) (Sec/m ³)	DCF (circle one)	Thyroid CDE Rate (mrem/hr)	Projected Release Duration (hr) (DEFAULT 3 hrs)	Thyroid CDE (mrem)
_____	_____	1.5E + 06 (RCS) 6.5E + 07 (Gap) 7.7E + 07 (Core)	<input type="text" value="-"/>	_____	<input type="text" value="-"/>
Attachment 10.1		1.5E + 06 (SG-Empty) 1.5E + 05 (SG-Normal) 1.4E + 07 (SG-Flooded)			

5. REPORTING THE RESULTS - (Refer to Section 7.3 of Instructions for details)

- A. Refer to EP G-1 for EAL criteria.
- B. Implement EP RB-10 for PAR criteria

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DIABLO CANYON POWER PLANT
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NUMBER EP EF-2
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UNITS

TITLE: Activation and Operation of the Operational Support Center

1 AND 2

02/27/04

EFFECTIVE DATE

PROCEDURE CLASSIFICATION: QUALITY RELATED

1. SCOPE

This procedure describes the activation and operation of the Operational Support Center (OSC).

2. DISCUSSION

2.1 Location and Description

The Operational Support Center (OSC) provides locations separate from the Control Room and Technical Support Center where designated support personnel assemble and await specific assignment during an emergency. The OSC command center is located in the buttress area of the 104-foot elevation, adjacent to the west side of the Unit 2 Turbine Building and the south end of the TSC. Depending on the emergency events and plant conditions, personnel assigned to the OSC may be directed to assemble at the OSC command center, the 85' RCA Access Control, the site medical facility, or other locations. OSC assembly areas serve as team dispatch locations and contain a variety of emergency support equipment immediately available for emergency use.

2.2 OSC Functions

2.2.1 A staging area for personnel assigned to one of the following tasks:

- a. Emergency maintenance, assessment, repair and damage control
- b. Fire fighting, search and rescue and medical assistance
- c. Post-accident sampling and radiological assessment

2.2.2 Emergency response equipment storage

2.2.3 Personnel decontamination facility

2.3 Within approximately 60 minutes of the initiation of the ERO notification, the OSC is required to be staffed by the following minimum staff positions.

- Emergency Maintenance Coordinator
- Site Radiation Protection Coordinator
- Technical Maintenance Coordinator
- Mechanical Coordinator
- Electrical Coordinator
- 6 - C&RP Technicians

NOTE: Vacancies may be filled by other qualified individuals not already filling a minimum staff position.

2.4 Activation of OSC

When minimum staffing is achieved, the OSC is declared activated.

TITLE: Activation and Operation of the Operational Support
Center

3. RESPONSIBILITIES

- 3.1 Senior Control Operator
 - 3.1.1 Ensures dispatched Operations teams are tracked until relieved by the OSC Access Supervisor.
- 3.2 Emergency Maintenance Coordinator
 - 3.2.1 Directs activities of OSC personnel.
 - 3.2.2 Coordinates a repair plan to recover from the emergency, in cooperation with the SEC and Maintenance Logistics Advisor.
 - 3.2.3 Fabricates and sets up any special equipment necessary at the direction of the SEC and Maintenance Logistics Advisor.
 - 3.2.4 Coordinates the movement and accountability of maintenance teams.
 - 3.2.5 Provides OSC status updates to the TSC.
- 3.3 Maintenance Coordinators (Mechanical, Technical, and Electrical Maintenance)
 - 3.3.1 Plan and coordinate resources to conduct assessment, maintenance, repair or installation of special equipment.
 - 3.3.2 Provide team status updates to the OSC Access Supervisor.
- 3.4 OSC Access Supervisor
 - 3.4.1 Coordinates plant access and ensures personnel entering a potentially hazardous plant area are informed of:
 - a. plant status.
 - b. potential hazards.
 - c. safety and radiation protection provisions.
 - d. appropriate protective equipment required.
 - 3.4.2 Maintains accountability of personnel dispatched from the OSC.
 - 3.4.3 Ensures response teams have been briefed on plant conditions prior to dispatch.
 - 3.4.4 Assists the Control Room and OSC in communicating with response teams.
- 3.5 Site Radiation Protection Coordinator
 - 3.5.1 Provides personnel exposure monitoring and record keeping.
 - 3.5.2 Directs surveys and establishes radiation or contamination control area boundaries.
 - 3.5.3 Determines radiological protection requirements for RCA access.
 - 3.5.4 Determines when an emergency exposure authorization is required and provides justification to the SEC or RM.

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TITLE: Activation and Operation of the Operational Support
Center

3.5.5 Informs the Radiological Advisor, Emergency Maintenance Coordinator and the OSC Access Supervisor of team activities.

3.5.6 Coordinates with the OSC Access Supervisor to brief radiological conditions to personnel dispatched into affected plant areas.

3.6 Site Chemistry Coordinator

3.6.1 Directs sampling and radio-chemical and chemical analysis.

3.6.2 Informs the Radiological Advisor and Emergency Maintenance Coordinator of actions and findings.

3.6.3 Coordinates personnel dispatched for sampling or analysis with the Site Radiation Protection Coordinator and OSC Access Supervisor.

3.7 Operations Coordinator

3.7.1 Coordinates Operation's response outside the Control Room.

4. INSTRUCTIONS

4.1 Use the form appropriate for the OSC ERO position filled.

4.2 The forms are checklists of items to remember to consider. The steps may be performed in any sequence, may be modified, or may be considered N/A at the discretion of the Emergency Maintenance Coordinator, unless specifically prohibited.

5. RECORDS

5.1 Completed checklist are good business records and shall be retained for three years in accordance with OM10.DC1.

6. ATTACHMENTS

6.1 Form 69-20506, "Emergency Maintenance Coordinator Checklist," 09/25/02

6.2 Form 69-20507, "Team Predeparture Checklist," 11/13/01

6.3 Form 69-20508, "OSC Access Supervisor," 09/25/02

6.4 Form 69-20509, "Site Radiation Protection Coordinator," 09/25/02

6.5 Form 69-20510, "Site Chemistry Coordinator Checklist," 09/25/02

6.6 Form 69-20511, "Maintenance/Operations Coordinator Checklist," 09/25/02

6.7 Form 69-20512, "Maintenance Team Exposure Tracking Sheet," 11/13/01

6.8 Form 69-20513, "OPS Team Dispatch Decision Tree," 02/25/02

DIABLO CANYON POWER PLANT

EP EF-2

ATTACHMENT 6.1

1 AND 2

TITLE: Emergency Maintenance Coordinator Checklist

Print Name _____ Date _____

- 1. Sign in on the Assembly and Accountability Checklist form, if applicable.
- 2. Sign in on the OSC sign-in board.
- 3. Ensure OSC accountability rosters are sent to Security per EP G-4, "Assembly and Accountability."
- 4. Within approximately 60 minutes of the initiation of the ERO notification, the OSC is required to be staffed by the following positions.

NOTE: Qualified individuals not already filling a minimum staff position may fill vacancies.

<input type="checkbox"/> Emergency Maintenance Coordinator	<input type="checkbox"/> Mechanical Coordinator
<input type="checkbox"/> Site Radiation Protection Coordinator	<input type="checkbox"/> Electrical Coordinator
<input type="checkbox"/> Technical Maintenance Coordinator	<input type="checkbox"/> 6 - C&RP Technicians

- 5. When minimum staffing is achieved, declare the OSC activated.
- 6. Notify the Control Room
- 7. Notify the TSC Maintenance Logistics Advisor
- 8. Request additional Mechanical, Electrical, and Technical Maintenance personnel.
- 9. Request additional clerical support from the TSC Administrative Advisor.
- 10. Discuss issues regarding authorization to waive administrative controls for emergency maintenance with the SEC. See AD2.ID1 for further information.
- 11. Direct clerical assistants to:
 - Coordinate with the TSC Administrative Advisor to develop a 24 hour shift schedule.
 - Update OSC status boards.
 - Assist in maintaining the EMC log.
 - Maintain a log of significant communications and decisions.

EP EF-2 (UNITS 1 AND 2)

ATTACHMENT 6.1

TITLE: Emergency Maintenance Coordinator Checklist

Continuous Actions

- 1. If plant conditions warrant, direct the SRPC to establish periodic OSC radiological habitability surveys.
- 2. Notify the TSC Radiological Advisor of any OSC radiological habitability surveys.
- 3. If a team must be dispatched without an SWP, request SEC authorization.
- 4. Refer to EP RB-2, if the SRPC request authorization for emergency exposure.
- 5. Communicate the following to the TSC Maintenance Logistics Advisor:
 - Significant accident mitigation
 - Problem evaluation and team assignment
 - Team dispatch times
 - Update team status
 - Team return time and results
- 6. Perform periodic OSC briefings.
- 7. If OSC evacuation is necessary, transfer operations to the backup OSC. Refer to EP EF-9.

DIABLO CANYON POWER PLANT

EP EF-2

ATTACHMENT 6.2

1 AND 2

TITLE: Team Predeparture Checklist

TEAM NUMBER _____

Date _____

Time _____

Maintenance Coordinator

1) Team OPS TM MM Elect Chem RP Sec Priority High Med Low

2) Members Name Pager Name Pager

Name Pager Name Pager

Name Pager Name Pager

3) Pager or Radio

4) Work Location Aux Turb Cont Other _____

5) Unit 1 2 Purpose _____

6) Tailboard Conducted Yes No

7) Rad brief needed? Yes No SWP # _____ [] N/A

RP Coordinator Signature

OSC Access Supervisor

8) Verify Steps 1 - 7 Are Complete

9) Team Communications Established

10) EMC Notified of Team Dispatch

11) JOBSITE Phone # _____

Team Debrief

12) Mission Status _____

13) Team Return Time/Date _____

14) EMC Notified of Team Return & Status _____

OSC Access Supervisor Signature

15) Technical Debrief _____

Maintenance Coordinator Signature

DIABLO CANYON POWER PLANT
EP EF-2
ATTACHMENT 6.3

1 AND 2

TITLE: OSC Access Supervisor

Print Name _____ Date _____

- 1. Sign in on the Assembly and Accountability Checklist form, if applicable.
- 2. Sign in on the OSC sign-in board.
- 3. IMMEDIATELY determine if teams have been dispatched. Provide this information to the EMC and SRPC.
- 4. Contact Medical Facility (#_____).
- 5. Contact Operations to coordinate accountability of personnel dispatched from the Control Room. Refer to Form 69-20513, "OPS Team Dispatch Decision Tree."
- 6. Contact Security to coordinate access of personnel into the power block.

NOTE: Security maintains accountability of Security personnel.

Continuous Actions

Maintain team accountability

- 1. Log all team departures and returns.
- 2. Review **Team Predeparture Checklist** for completeness and authorize departure.
- 3. Inform the EMC of team departures and returns.
- Maintain communications with all teams.**
- 4. Inform response teams of changes in emergency classification or plant conditions.
- 5. Periodically update the EMC of team status.
- 6. Periodically update the SRPC on team exposure status and radiological problems, dose rates encountered.
- 7. Maintain a log of significant communications and decisions.
- 8. Ensure returning teams report to the SRPC to receive a debriefing on radiological conditions, personnel exposure, and other hazards or problems encountered.

DIABLO CANYON POWER PLANT

EP EF-2

ATTACHMENT 6.4

1 AND 2

TITLE: Site Radiation Protection Coordinator

Print Name _____ Date _____

- 1. Sign in on the Assembly and Accountability Checklist form as applicable.
- 2. Sign in on the OSC sign-in board.
- 3. Determine if additional technicians should be called in.
- 4. Contact the TSC Radiological Advisor.
- 5. Obtain a computer printout record of current calendar year exposure for personnel who may be dispatched from the OSC.

Continuous Actions

- 1. Upon the arrival of the NRC Initial Site Team, the NRC Co-locator (NRC HP Specialist) may come to the OSC. Upon arrival, brief him on the emergency developments, mitigating actions, and current activities. Ensure the NRC Co-locator is familiar with telephone use, information flow, and has copies of the same documents used for your position.
- 2. Perform a predeparture analysis of the anticipated TEDE and determine if any identified team member requires an emergency exposure authorization prior to dispatch.
- 3. If any team member may exceed the Federal Limit Calendar Year exposure criteria of 5 rem TEDE, an emergency exposure authorization is required for that individual.
- 4. Refer to EP RB-2, "Emergency Exposure Guides," for further instructions while continuing in this procedure.
- 5. Brief teams prior to departure.
- 6. Prepare an SWP prior to entry if time permits, although a verbal SWP is permissible. Perform verbal SWP, to be followed up by the written SWP, in accordance with EP RB-4.
- 7. Brief teams on the radiological conditions they will encounter and discuss travel routes.
- 8. Determine the requirements for personnel dosimetry in accordance with EP RB-1, "Personnel Dosimetry."
- 9. Initiate "Team Predeparture Checklist" for C&RP personnel who are not part of a maintenance team.
- 10. If plant conditions warrant, recommend periodic OSC radiological habitability surveys to the EMC.
- 11. When the EMC directs, establish periodic radiological habitability surveys as required.
- 12. Continuously track personnel emergency exposure and maintain records to determine when individual limits are being approached.

EP EF-2 (UNITS 1 AND 2)

ATTACHMENT 6.4

TITLE: Site Radiation Protection Coordinator

13. Form 69-20512 may be used to track exposures.

NOTE: DCFs were developed for Field Monitoring Teams and DO NOT take credit for respiratory protection or other protective measures. If such protective measures are taken, DCF are not appropriate for in-plant use. All radiation protection measures in addition to DCFs should be taken in consideration for mitigating the emergency response.

14. If high airborne radio iodine conditions are present, coordinate the administration of Thyroid Blocking (KI) as directed by the TSC Radiological Advisor and in accordance with EP RB-3, "Stable Iodine Thyroid Blocking."
15. If any returning team personnel require decontamination and the normal access control decon facilities are not available, refer to EP RB-5, "Personnel Decontamination," for alternate locations during emergencies.
16. Provide a radiological debriefing of returning teams including exposures, radiological conditions and other hazards or problems encountered.

DIABLO CANYON POWER PLANT

EP EF-2

ATTACHMENT 6.5

1 AND 2

TITLE: Site Chemistry Coordinator Checklist

Print Name _____ Date _____

- 1. Sign in on the Assembly and Accountability Checklist form as applicable.
- 2. Sign in on the OSC sign-in board.
- 3. If the SRPC has not arrived, determine if additional technicians should be called in.
- 4. Contact the TSC Radiological Advisor.
- 5. Obtain a record of current calendar year exposures for Chemistry personnel who may be dispatched from the OSC.

Continuous Actions

- 1. Coordinate with the TSC Radiological Advisor to determine plant chemistry sampling requirements.
- 2. Supervise radiochemical and chemical analysis.
- 3. Perform a predeparture analysis of the anticipated TEDE and determine if any identified team member requires an emergency exposure authorization prior to dispatch.
- 4. If any team member may exceed the Federal Limit Calendar Year exposure criteria of 5 rem TEDE, an emergency exposure authorization is required for that individual.
- 5. Notify the SRPC to refer to EP RB-2, "Emergency Exposure Guides," for further instructions while continuing with the team briefing.

NOTE: If necessary, an emergency exposure authorization of 5 rem TEDE may be obtained from the RM/SEC to permit sampling activity to proceed. Any individual who receives an emergency exposure shall be relieved of further emergency response duties and a replacement obtained.

- 6. Brief personnel dispatched for sampling or analysis.
- 7. If PASS is activated, make the necessary arrangements per EP RB-15, "Post-Accident Sampling System."
- 8. Keep the EMC informed of actions and findings.

DIABLO CANYON POWER PLANT

EP EF-2

ATTACHMENT 6.6

1 AND 2

TITLE: Maintenance/Operations Coordinator Checklist

Print Name _____ Date _____

- 1. Sign in on the Assembly and Accountability Checklist form, if applicable.
- 2. Sign in on the OSC sign-in board.
- 3. Determine the staffing and equipment requirements.
- NOTE:** During normal working hours maintenance personnel may be paged.
During off-normal working hours personnel must be called in from home.
- 4. Report staffing requirements to the EMC.
- 5. Maintenance personnel should be staged in the maintenance shops or the OSC.
- 6. Coordinate maintenance team dispatch with the Access Supervisor.

DIABLO CANYON POWER PLANT

EP EF-2

ATTACHMENT 6.7

1 AND 2

TITLE: Maintenance Team Exposure Tracking Sheet

SRD Dose Conversion Factors

Source Term	TEDE DCF No KI	TEDE DCF With KI	THY. DCF No KI	THY. DCF With KI
CORE	13	5	162	16
GAP	24	3	515	52
DB RCS	3	1	40	4
SG Normal	1	1	4	0.4
SG Empty	3	1	40	4
SG Flooded	15	2	285	29

Use the tables above and below to convert PIC readings to Dose.

NOTE: DCFs were developed for Field Monitoring Teams and DO NOT take credit for respiratory protection or other protective measures. If such protective measures are taken, DCF are not appropriate for in-plant use. All radiation protection measures in addition to DCFs should be taken in consideration for mitigating the emergency response.

- 1) Obtain the source term from the Radiological Data Processor - Dose Assessment in the TSC.
- 2) Record the time and readings for both the high and low range PICs.
- 3) Multiply by the dose conversion factors (DCFs). If the source term changes, use the new DCF multiplier.
- 4) If a PIC is re-zeroed, circle the last TEDE and Thyroid CDE values and add the circled values to determine the Cumulative TEDE and Thyroid CDE.
- 5) Refer to EP RB-2 for emergency worker PAGs.

Name of Individual:								
Time Reported	Only use highest onscale PIC reading		See table above.				Only necessary when PIC is re-zeroed.	
	Low Range PIC (mR)	High Range PIC* (Roentgen)	TEDE DCF	Thyroid CDE DCF	TEDE (mrem)	Thyroid CDE (mrem)	Cumulative TEDE (mrem)	Cumulative Thyroid CDE (mrem)

Name of Individual:								
Time Reported	Only use highest onscale PIC reading		See table above.				Only necessary when PIC is re-zeroed.	
	Low Range PIC (mR)	High Range PIC* (Roentgen)	TEDE DCF	Thyroid CDE DCF	TEDE (mrem)	Thyroid CDE (mrem)	Cumulative TEDE (mrem)	Cumulative Thyroid CDE (mrem)

EP EF-2 (UNITS 1 AND 2)

ATTACHMENT 6.7

TITLE: Maintenance Team Exposure Tracking Sheet

Name of Individual:								
	Only use highest onscale PIC reading		See table above.				Only necessary when PIC is re-zeroed.	
Time Reported	Low Range PIC (mR)	High Range PIC* (Roentgen)	TEDE DCF	Thyroid CDE DCF	TEDE (mrem)	Thyroid CDE (mrem)	Cumulative TEDE (mrem)	Cumulative Thyroid CDE (mrem)

Name of Individual:								
	Only use highest onscale PIC reading		See table above.				Only necessary when PIC is re-zeroed.	
Time Reported	Low Range PIC (mR)	High Range PIC* (Roentgen)	TEDE DCF	Thyroid CDE DCF	TEDE (mrem)	Thyroid CDE (mrem)	Cumulative TEDE (mrem)	Cumulative Thyroid CDE (mrem)

Name of Individual:								
	Only use highest onscale PIC reading		See table above.				Only necessary when PIC is re-zeroed.	
Time Reported	Low Range PIC (mR)	High Range PIC* (Roentgen)	TEDE DCF	Thyroid CDE DCF	TEDE (mrem)	Thyroid CDE (mrem)	Cumulative TEDE (mrem)	Cumulative Thyroid CDE (mrem)

Name of Individual:								
	Only use highest onscale PIC reading		See table above.				Only necessary when PIC is re-zeroed.	
Time Reported	Low Range PIC (mR)	High Range PIC* (Roentgen)	TEDE DCF	Thyroid CDE DCF	TEDE (mrem)	Thyroid CDE (mrem)	Cumulative TEDE (mrem)	Cumulative Thyroid CDE (mrem)

NOTE: the high range PIC reading must be multiplied by 1,000 to convert from Roentgen to mR.

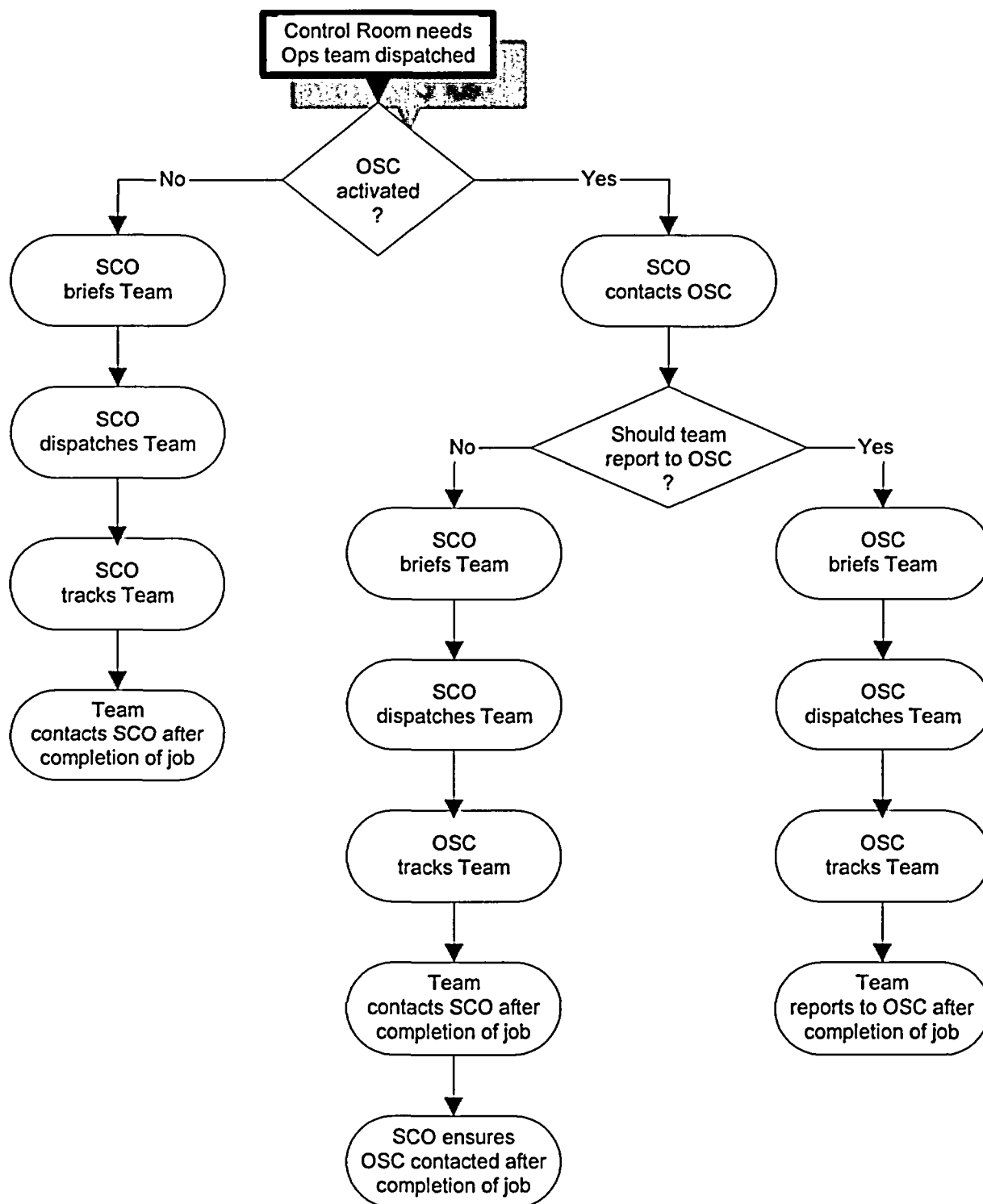
DIABLO CANYON POWER PLANT

EP EF-2

ATTACHMENT 6.8

1 AND 2

TITLE: OPS Team Dispatch Decision Tree



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 NUCLEAR POWER GENERATION
 DIABLO CANYON POWER PLANT
 EMERGENCY PLAN IMPLEMENTING PROCEDURE

NUMBER EP EF-9
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TITLE: Backup Emergency Response Facilities

1 AND 2

02/27/04

EFFECTIVE DATE

PROCEDURE CLASSIFICATION: QUALITY RELATED

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1. SCOPE{ TC "SCOPE" \F C \L "1" }
 - 1.1 This procedure describes on-site backup Emergency Response Facilities (ERFs) available if a primary ERF cannot be activated or becomes uninhabitable.
2. DISCUSSION{ TC "DISCUSSION" \F C \L "1" }
 - 2.1 Designated on-site ERFs and their backup facilities include the following:

ERF Function	Primary Facility	First Backup	Second Backup
Control Room	Control Room	Hot S/D Panel (SM/SFM); TSC (SM, STA, SFM)	(None)
TSC	TSC	Control Room (Min. Staff.); TM/Trng. Bldg. (Supp.)	Hot S/D Panel (Min. Staff.); EOF (Support)
OSC - Command Center	OSC - 104' Buttress Area	140' Turbine Building - Northeast Corner	Administration Building Room 215
OSC - Maintenance Assembly Area	OSC - 104' Buttress Area	140' Turbine Building - Northeast Corner	Canyon Rm/Trng Bldg
CR/OSC - Nuclear Operator Assembly Area	Control Room	OPs Ready Room	119' Turbine Building Ofc/Cyn Rm
OSC - C&RP Technician Assembly Area	85' Access Control	140' Access Control	TSC Lab

TITLE: Backup Emergency Response Facilities

2.2 The functions of each backup facility are the same as for the corresponding primary facility. Listed below are available systems in the backup facilities corresponding to the primary ERF. Note that these systems are a description at the time of this procedure revision and are NOT required to be in place by this procedure.

Control Room Function	Primary Facility	First Backup		Second Backup
		Systems	Control Room	
Plant inst/controls	Yes	Yes (limited)	---	---
RoIm phones	Yes	Yes (limited, #s differ)	Yes (#s differ)	---
Black Net phone	Yes	---	Yes	---
PPC	Yes	---	Yes	---
LAN/WAN computer	Yes	---	Yes	---
ERDS computer	Yes	---	Yes	---
SPDS	Yes	---	Yes	---
LAN/WAN printer	Yes	---	Yes	---
Radio transmitter	Yes	Yes (operations frequency only)	Yes	---
Plant P.A.	Yes	Yes	Yes	---
Copier	Yes	---	Yes	---
Fax	Yes	---	Yes	---
Rad. survey instruments	Yes	---	Yes	---

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TITLE: Backup Emergency Response Facilities

TSC Function	Primary Facility	First Backup		Second Backup	
		CR (Mgmt.)	I&C/Trng. (Support)	S/D Panel (Mgmt.)	EOF (Support)
Systems	TSC				
Rollm Phones	Yes	Yes (#s differ)	Yes (#s differ)	Yes (limited)	Yes (#s differ)
Black Net Phones	Yes	Yes	---	---	Yes
LAN/WAN computers	Yes	Yes	Yes	---	Yes
LAN/WAN printer	Yes	Yes	Yes	---	Yes
Radio transmitter	Yes	Yes	---	Yes, (operations frequency only)	Yes
Plant PA	Yes	Yes	---	Yes	---
SPDS	Yes	Yes	---	---	Yes
PPC	Yes	Yes	---	---	---
Plant manual & drawings	Yes	Yes	Yes (Trng.)	---	Yes
Microfiche/film & readers	Yes	---	---	---	---
Copier	Yes	Yes	Yes	---	Yes
Fax	Yes	Yes	---	---	Yes
Rad. survey instruments	Yes	Yes	---	---	Yes
Office supplies	Yes	Yes (limited)	Yes	---	Yes

TITLE: Backup Emergency Response Facilities

OSC Function	Primary Facility	First Backup	Second Backup
Systems	OSC - 104' Buttress Area	140' Turbine Building (northeast corner)	Administration Building Room 215
Rollm Phones	Yes	Yes	Yes (different #s)
LAN/WAN computers	Yes	Yes	Yes
LAN/WAN printer	Yes	Yes	Yes
Copier	Yes	Yes	Yes
Rad. survey instruments	Yes	---	---

Access Control Function	Primary Facility	First Backup	Second Backup
Systems	85' Access Control	140' Access Control	TSC Lab
CPDS/ACAS computer	Yes	(wiring in place)	---
PCs/PICs/Alarming dosimetry/PCMs	Yes	---	---

3. DEFINITIONS{ TC "DEFINITIONS" \F C \L "1" }

3.1 Habitability - a facility is deemed habitable when its occupants may perform their intended functions within (including, as applicable, access and exit) without undue risk from toxic, flammable, explosive, radiological or other hazards. Given the large potential variances in plant emergency risk and necessary facility occupancy times to respond appropriately, absolute numerical limits for these hazards are not pre-specified in this procedure. See RESPONSIBILITIES below for determination of habitability and relocation.

4. RESPONSIBILITIES{ TC "RESPONSIBILITIES" \F C \L "1" }

4.1 The Site Emergency Coordinator (SEC) shall, in general, determine relocation necessary for onsite ERFs. If time permits and the EOF is activated with the Recovery manager present, the SEC should obtain the RM's consent. However, in cases of rapidly escalating or highly dangerous or potentially dangerous conditions, the lead supervisor in each facility may order evacuation prior to receiving SEC/RM authorization.

TITLE: Backup Emergency Response Facilities

4.2 The lead supervisor for each ERF who may determine habitability for that facility (subject to Section 5.2 below) is listed below:

ERF	Lead Supervisor
Control Room	Interim SEC/Emerg. Ops Coord.
TSC	Site Emergency Coordinator
OSC	Emergency Maintenance Coordinator
Access Control	RP Coordinator

5. INSTRUCTIONS{ TC "INSTRUCTIONS" \F C \L "1" }

5.1 A backup ERF shall be activated when an ERF is determined uninhabitable or otherwise may not start up or continue operations. See Section 2.1 above for the recommended succession of ERFs.

5.2 An ERF shall be declared uninhabitable by the following:

5.2.1 The Recovery Manager (EOF is activated and time permits).

5.2.2 The SEC or ISEC (EOF not activated or time does not permit RM consent).

5.2.3 The ERF lead supervisor (time does not permit SEC/ISEC consent). See Section 4.2 above.

5.3 The backup ERF shall be activated using the references listed below.

5.3.1 Backup Control Room: OP AP-8A

5.3.2 Backup TSC: Attachment 7.1

5.3.3 Backup OSC: Attachment 7.2

5.3.4 Backup Access Control: Attachment 7.3

6. RECORDS{ TC "RECORDS" \F C \L "1" }

6.1 Checklists completed due to use of this procedure in a drill or actual event shall be forwarded to the Emergency Planning Supervisor for entry into Records Management System.

7. ATTACHMENTS{ TC "ATTACHMENTS" \F C \L "1" }

7.1 "Backup TSC Activation," 08/17/00

7.2 "Backup OSC Activation," 12/30/03

7.3 "Backup Access Control Activation," 08/17/00

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EP EF-9
ATTACHMENT 7.1

1 AND 2

TITLE: Backup TSC Activation

INSTRUCTIONS:

NOTE 1: Use this attachment in conjunction with EP EF-1.

NOTE 2: The TSC first backup facility is the Control Room for the minimum staff personnel and other appropriate facilities for the TSC support staff. The second backup is the Hot Shutdown Panel for the minimum staff personnel and the EOF for the TSC support staff. Circumstances may dictate using these out of order, or utilizing different facilities. In such a case, as much of the following instructions should be implemented as possible.

1. _____ If time permits and the EOF is activated with the RM present, obtain SEC or RM consent for TSC relocation.
2. _____ Declare the TSC evacuation and relocation to the TSC staff using the plant PA. Notify the EOF if activated. Notify the Control Room and, if activated, the OSC. Post the abandoned facility entrances with signs indicating the uninhabitable status and facility relocation.
3. _____ Direct the minimum TSC staffing per EP EF-1 to the Control Room, Hot Shutdown Panel, or other appropriate facility, plus other essential personnel appropriate to the event response.
4. _____ Direct TSC support staff to relocate to other appropriate facilities. Consider taking the survey instruments from the TSC.
5. _____ When the backup TSC facility is operational, notify the Control Room and, as appropriate, the OSC and EOF. Make a plant PA announcement if possible. Direct notification of the County, State and NRC.

Completed By: _____ Date: _____
Site Emergency Coordinator

DIABLO CANYON POWER PLANT

EP EF-9

ATTACHMENT 7.2

1 AND 2

TITLE: Backup OSC Activation

INSTRUCTIONS:

NOTE 1: Use this attachment in conjunction with EP EF-2.

NOTE 2: The OSC first backup facility is the office on the north end of the Turbine Building (140' elevation) and the second is the Administration Building Room 215. Circumstances may dictate using these out of order, or utilizing a different facility, such as the 85' Machine Shop. In such a case, as much of the following instructions should be implemented as possible.

1. _____ If time permits, obtain SEC or ISEC consent for OSC relocation.
2. _____ Declare the OSC evacuation and relocation to the OSC staff. Notify the Control Room and, if available, the SEC. Request the CR or TSC to make a PA announcement of the OSC relocation. Post the abandoned facility entrances with signs indicating the uninhabitable status and facility relocation.
3. _____ Direct at least the minimum OSC staffing per EP EF-2 to the 140' Turbine Building (northeast corner), the Administration Building Room 215 or other appropriate facility. Consider taking the survey instruments and supplies from the OSC - 140' Buttress Area.
4. _____ Direct any extra OSC staffing to the Administration Building Room 215, Training Building or other appropriate facility.
5. _____ When the backup OSC facility is operational, notify the Control Room and, if activated, the TSC.

Completed By: _____ Date: _____
Emergency Maintenance Coordinator

DIABLO CANYON POWER PLANT

EP EF-9
ATTACHMENT 7.3

1 AND 2

TITLE: Backup Access Control Activation

INSTRUCTIONS:

NOTE 1: Use this attachment in conjunction with EP EF-2.

NOTE 2: The 85' Access Control first backup facility is the 140' Access Control and the second is the TSC Lab. Circumstances may dictate using these out of order, or utilizing a different facility. In such a case, as much of the following instructions should be implemented as possible.

1. _____ If time permits, obtain SEC or ISEC consent for Access Control relocation.
2. _____ Declare the Access Control evacuation and relocation to the Access Control staff. Notify the Control Room and, if available, the SEC. Request the CR or TSC to make a PA announcement of the Access Control relocation. Post the abandoned facility entrances with signs indicating the uninhabitable status and facility relocation.
3. _____ Direct at least the minimum Access Control staffing to the 140' Access Control, the TSC Lab, or other appropriate facility.
4. _____ When the backup Access Control is operational, notify the Control Room and, if activated, the TSC and OSC.

Completed By: _____ Date: _____
RP Coordinator